THE INFLUENCE OF CORPORATE GOVERNANCE ON THE FINANCIAL FIRMS' PERFORMANCE DURING AND AFTER GLOBAL FINANCIAL CRISES: COMPARATIVE STUDY BETWEEN DEVELOPED COUNTRIES AND EMERGING MARKETS

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ABSTRACT

This research aims to advance previous researches about the relationship between banks' performance and corporate governance by presenting the differences between developed countries and emerging market countries in terms of banks' performances and corporate governances during and after global financial crisis. Panel data was used on a sample of 80 publicly listed banks across 15 countries, including 8 developed countries and 7 emerging market countries, for the year 2007 to 2010 and was analyzed with multiple regressions. This paper found some evidence that board size has significant negative and large ownership has significant positive relationship to bank performance, which support the findings that banks in emerging markets which have smaller board size and larger presence of block-holders performed better during crisis. The comparative analysis found that within developed countries, board size and board independence have significant influence on bank performance, while the significant relationship in emerging markets appears in CEO duality variable and the ownership monitoring mechanisms.

Keywords: corporate governance, emerging, financial crises

CHAPTER I: INTRODUCTION

1.1 Introduction

The roots of the global financial crisis of 2007-2008 are not only due to macroeconomic factors (Taylor, 2009) but can also be traced to the poor performances of the financial institutions. A bank's risk management and financing policies are the outcome of trade-off considerations between shareholders and corporate board considerations. This corporate governance has affected not only bank performances but also the global financial crisis (Brunnermeier, 2009 and Kashyap et al., 2008). Another study supported the view that poor governance contributed to the financial crises in addition to other factors, such as loose regulation, inadequate capital, and excessive short-term market borrowing (Beltratti and Stulz, 2011)

Ten years before the global financial crises, the Asian financial crisis in 1997, which had reached worldwide attention, was also caused by weak corporate governance practices, which have added to the vulnerability of Asian countries. The big scandals of large corporations, such as Enron, WorldCom, and Royal Ahold, have also raised a lot of attention to corporate governance practice. The banking system in Asia had, after the Asian financial crises, also reformed bank regulations to raise efficiency of bank services in order to better support sustainable development (Garcia, 1997). The bank restructuring program contains modification of corporate governance and the ownership structure of banks. There are two reasons why companies with weak corporate governance could be very critical and may lose more during the financial crises: first, the expropriation of minority shareholders is more severe during crisis and second, investors are forced to recognize and take account of corporate governance weaknesses, which in fact, has existed all along, when the crisis happened (Mitton, 2001).

This research examined 80 publicly-traded banks in 8 developed countries and 7 emerging countries for the years 2007-2010, to explore whether there are empirical differences in the influences of financial firms' corporate governance on their performances between developed and emerging market countries, during and after the financial crisis. The banks' performance was measured by applying Tobin's Q regressed on measures of corporate governance variables to find the relationship between bank performances and corporate governance. Two mechanisms of corporate governance are studied, namely internal control mechanism and ownership monitoring mechanism. Board's internal control mechanism includes: (1) size of the board; (2) board independence; (3) CEO duality, with ownership monitoring mechanism that consists of large shareholders, institutional ownership, government ownership, and foreign ownership. In this paper, I used dummy variables that indicate whether the companies were from developed countries, country dummies, and year dummies. Furthermore, I ran separate regressions for emerging and developed countries to identify differences; and I tested the robustness of the result using an accounting-based performance measure revealed in Return on Asset (ROA).

Previous researches have examined the relationship between banks' corporate governance and their performances during the financial crisis, either in developed countries or emerging markets. This study aims to advance previous researches by examining the differences between developed and emerging market countries in terms of their banks' corporate governance and their performance during and after the global financial crisis 2007 - 2010. The intentions of this research are to explore: (1) why emerging market countries performed better during and after the crisis and, (2) whether there is a significant relationship between corporate governance practices, such as internal control mechanisms and ownership monitoring mechanism, and their bank performances. The empirical research done across 15 countries focused on obtaining information on corporate governance's influence on bank performance.

This paper relates closely to recent papers by Erkens D.H et al (2012) and Zulkafli and Samad (2007). Erkens D.H et al (2012) discussed how the corporate governance of financial firms influenced their performances during the years of global financial crises of 2007-2008, in the 30 countries who are at the centre of the crisis. Zulkafli and Samad (2007) examined the influence of corporate governance of listed banking firms in 9 Asian emerging markets on the bank performance. This paper tries to extend the relationship between corporate governance and banks' performance by introducing the differences between developed and emerging markets in terms of a bank's corporate governance and performance during and after the financial crisis from 2007 to 2010. The elaboration of the effect of differences between developed and emerging market can be seen as an extension to Zulkafli and Samad's (2007) and Erkens D.H et al's (2012) paper in response to the financial crisis that hit developed and emerging markets.

This research found that banks in emerging markets, which perform significantly better during and after crisis, have smaller board sizes and larger presence of block-holders. These findings are confirmed with the evidence that, in general, board size has a significant negative and large ownership has significant positive relationship to bank performance. These results might be the reason why emerging countries performed better during financial crisis. The other findings were that board independence and CEO duality do not have a noteworthy relationship, while government and institutional ownership have a significant negative relationship between corporate governance and bank performance in developed countries and emerging markets has differences in all variables. The significant relationship in developed countries only appears in board size and board independence; with negative and positive coefficients respectively, while the significant relationship in emerging markets appear in the rest of corporate governance variables.

The study is structured with Chapter 2 providing a relevant literature review of the agency problem, corporate governance mechanisms and bank performance, and corporate governance in developed countries and emerging markets during financial crises. Chapter 3 describes data and research methodology. Chapter 4 investigates the main empirical results as the outcome of the mean equality test, regression by using Tobin's Q and ROA, and the comparative analysis. Chapter 5 summarizes the main conclusions from the research, followed by limitations and recommendations.

1.2 Statement of Hypotheses

Based on this research, we came up with the following two clusters of hypotheses:

- I. The first cluster of our hypotheses is that banks in emerging markets performed significantly better during and after crisis, because of having: (1) smaller board size; (2) more independent directors on the board; (3) lower presence of CEO duality, and (4) larger presence of block-holders, more institutional and foreign ownership and less government ownership.
- II. The comparative analysis between developed and emerging market countries reveals the second cluster of our hypotheses that: (1) corporate governance practices of banks are significantly different in developed countries as compared to those in emerging market countries, and (2) the relationship between corporate governance and bank performance is different between emerging and developed countries.

CHAPTER II : REVIEW OF LITERATURE

2.1 Agency Problem

Agency relationship is defined as a contractual relationship between two parties, the principal and the agent, where the agent performs some services on behalf of the principal, including delegating decision making authority to the agent (Jensen and Meckling, 1976). AhsanHabib (2004), as summarized by Bhuiyan and Biswas (2008) argues that managers who are given the decision making discretion as an agent, may not always act in the best interest of shareholders, the principals, and could act in non-value maximizing behaviour. The action of managers in preference to gain their own benefit causes the existence of agency problems.

The principal-agent problem was derived from Adam Smith's theory in the 18th century and was later proved by Berle and Means (1932) about the separation of ownership and control of assets in a modern corporation with large numbers of shareholders. It has been suggested that the difference between the agent and the principal is the problem in the agency relationship (Bhuiyan and Biswas, 2008); the risk-averse agent and the risk-seeker principal. Dennis (2001) agrees that the conflict of agency relationship is due to managerial risk aversion. Managers and shareholders may bear a different level of risk in the same investment opportunity. Heinrich (2002) explains that the sources of agency problems of those parties are the asymmetries of the information, differences of rights in decision-making, and differences in attitude towards risk. Due to those differences, and assuming all parties seek to maximize their own best interest, problems are bound to arise. (Bromwich, 1992)

Agency costs are the deterioration in a company's value because of agent's behaviour, which differ from the owner's (Bhuiyan and Biswas, 2008). Jensen and Meckling (1976) state that agency cost is inevitable as long as the separation of ownership and control exists, and the term of 'inefficiencies' is only appropriate if comparing to an 'ideal world' where principal and agent interests are in the same line at zero cost.

They summarize the agency costs as the total of monitoring costs, bonding costs, and residual loss. Monitoring costs include incentives for the agent and establishment of monitoring mechanism and control activities, such as setting budget restrictions and operating rules. Bonding costs are resources spent to guarantee that agents would not take certain actions that would harm the principal. Residual loss is the wealth loss or the dollar equivalent of the reduction in welfare borne by the principal, since there will be divergence between the agent's decisions and those decisions that would maximize the principal's wealth, even after the incurrence of sufficient monitoring and bonding costs. Residual loss is the key cost that owners would seek to reduce through monitoring cost and bonding cost (Williamson, 1988).

The agency costs in each company are different depending on the quantity of available information for the agent's activities; the cost of formulating an incentives and bonus schemes for the agents who maximize the principal's wealth; the cost of monitoring and evaluating the management's performance; and the cost of assigning and implementing policy rules (Bhuiyan and Biswas, 2008).

2.2 Corporate Governance Mechanism and Firm's Performance

Minimizing agency cost due to the conflict of interest requires an optimal corporate governance structure (Nestor and Thompson, 2001). Cadbury (1992) defines corporate governance as a system through which companies are controlled and directed. Bhuiyan and Biswas (2008) describe corporate governance as a set of mechanisms by which corporations operate when ownership and control are separated. The objective of corporate governance is to coordinate the all parties' conflict of interest and to develop systems that are able to decrease or remove the agency problems (OECD, 1997).

Ahmed (2006) emphasizes that the purpose of good corporate governance is to permit the companies to attract capital, perform efficiently, and generate long term economic value for their shareholders while respecting the stakeholders and the whole society. The effective corporate governance has some main characteristics, which are (1)transparency of relevant information, whether financial or operational, and internal control of management oversight; (2)the rights' and prerogatives' protection and enforceability

of all shareholders; and (3)the capability of directors to act independently in accepting the firms' major decisions and strategies, hiring and replacing. Several empirical evidences of the relationship between corporate governance and bank performance have shown that stronger governance controls are rewarded in the long term, and better corporate governance controls can improve firm performance, they thereby concluded that firm performance is affected by corporate governance (Famma and Jensen, 1983).

Klein, Shapiro, and Young (2004) recognize that corporate governance does matter in firm value by using the Corporate Governance Index and Tobin's Q as the firm's value measurement to analyse the relationship between both variables. A weak governance and limited protection of minority shareholders make the agency problems become more critical (Dharwadkar, George, &Brandes, 2000). Tandelilin et al. (2007) state that the intention and efforts by management and shareholders in the banking firms to implement good corporate governance will increase market trustworthiness that will lead to lower risk, a lower cost of funds, and higher performance.

For banking sectors, corporate governance runs in different context compared to other economic industries. Corporate governance in the case of banking firms should be adopted in a broader view because of its unique characteristics (Macey and O'hara, 2001). They argue that corporate governance mechanisms in banking firms should consider depositors as well as shareholders. Zulkafli and Samad (2007) suggest that corporate governance mechanisms on banking firms are considered unique compared to other industries because of the different environments they are operating in. They explain that there are several significant differences between banking firms and other non-financial firms, such as the regulatory environments where financial firms are subjected to more requirements, an issue of moral hazard in the banking firms' operation, and larger information asymmetries in the banking firms' operations that require higher disclosure information to creditors and shareholders. That statement supports the other study from Carse (2000) who argues that the importance of a strong corporate governance in banking firms is above other industries, because most of their operations are related with funds which belong to creditors and depositors, and the failure of a bank will produce a systemic effect to other banks, not only to its own shareholders.

The expropriation of bank resources, including theft, transfer pricing, asset stripping, hiring family members, and allocating credit that enrich the bank insiders while hurting the bank, is an issue of moral hazard in the banking firms' operation that could be reduced by the governance mechanism to encourage the bank efficiency (Caprio, Leuven, and Levin, 2003). Zulkifli and Samad (2007) identifies whether the differences in the corporate governance mechanisms that assist to monitor the companies between financial and non-financial firms does exist, especially in terms of Ownership Monitoring Mechanism, Internal Control Monitoring Mechanism, Regulatory Monitoring Mechanism, and Disclosure Monitoring Mechanism. This paper focuses on internal control monitoring mechanism and ownership monitoring mechanism.

2.3 Building the Hypotheses

2.3.1. Internal Control Mechanisms and Ownership Monitoring Mechanisms

A board of directors is defined as a collective of people who are appointed by the shareholders to monitor the firm's daily operation and to be responsible in making decisions because as in daily operations, shareholders' regular meetings find it difficult to make decision in details, especially for public-listed companies that have a large numbers of shareholders (Yung, 2009). Their duty is to ensure that the managers will act and behave for the shareholders' best interest (Coles, McWilliams, &Sen, 2001). There are three major duties for a board of directors, which are developing business strategy, appointing senior management, and ensuring the availability of information and control in order to analyse the company's performance and make decisions. In another study from Susslan (2005), the board of directors are seen as a referee, who decides to approve the major decisions by applying the prescribing rules, and as a coach, who gets involved with top management and is proactive when problems arise. Yung (2009) cites a statement from the Hong Kong Monetary Authority (2000) that a board of directors, and a separation of roles between Chairman of the company and CEO of the board of directors. Jensen (1983) explains that there are at least three proxy variables that are able to explain board structure, which are board size, board independence, and CEO duality.

HYPOTHESIS 1: Banks with smaller board size will have better performances.

There are various studies which investigate the appropriate number of members of a board in the companies. Jensen (1983) advises that the board with membership more than seven or eight people is less likely to function effectively, therefore having a small board will help to improve the company's performance. For non-financial companies, the previous studies found a negative relationship between board size and performance. Jensen (1983) argues that free-riding problems among directors and decision-making time would increase as the board size increases, making the monitoring management less effective.

Advancing different evidence from previous studies in non-financial firms, there is a conflicting idea about the relationships between board size and banks performance. Adams and Mehran (2008) found the average of board members in 35 publicly-traded bank holding companies is 18 directors and argue that the banking firms' board size positively correlates to Tobin's Q of bank holding company and there is no significant effect with ROA. Andres and Vallelado (2008) reported a mean of 15.78 for banks in six OECD countries and explained that the effect of board size on bank performance is a trade-off between monitoring (advantage) and decision-making problems (disadvantage). However, Cornett et al. (2003) found a significant negative relationship between the board size and the abnormal return in a bidding bank for diversification acquisition. Other previous studies (Yermack, 1996; Eisenberg et al, 1998) also found that boards with too many members give excessive control to the CEO while harming the efficiency, leading to coordination and decision-making problems. Thus, we expect that banks with smaller size of the board would have less free-riding problems and less decision-making time, which results in a more efficient monitoring management and increases the bank value.

HYPOTHESIS 2: Banks with more independent directors in the board will have better performances.

Independent directors on the board are needed in order to decrease agency cost, to gain access to capital markets, and to ensure the executive remuneration's accountability (Lawrence & Stapledon, 1999). There are several earlier studies that have examined the influence and the positive link between independent directors and firms' performance. The firms that survive in the crisis are the result of greater proportion of independent directors on the board (Cook, Hogan, and Kieschnick, 2004).

Adams and Mehran (2003) state that the increase in fraction of independent directors on the board should increase the performance of the firm as this could make the monitoring of managers become more effective. However, they found no significant relationship between the firm performance measured by Tobin's Q and outsiders on the board, even though there is a positive correlation between firm performance and majority outsiders on the board. During the financial crisis, independent directors are expected to have fewer conflicts of interest and are better behaved for the shareholders' best interest. Therefore, banks with more independent directors would make decisions on behalf of shareholders and gain shareholders' value.

HYPOTHESIS 3: The smaller presence of CEO duality, the better performance of a bank will be.

CEO Duality refers to a single person with the position as a Chairman of the board and as the CEO or Managing Director of the company simultaneously. Coles et al. (2001) state that there are two types of leadership structure, combined and separated. According to Haniffa and Cooke (2005), the combined leadership structure enhances the efficiency of monitoring because it requires less contracting and reduces the information asymmetry. However, Kiel and Nicholson (2003) found a negative relationship between CEO duality and bank performance measured with Tobin's Q in a study of 348 Australian publicly listed firms. Moreover, Zulkafli and Samad (2007) state that the boards are able and allowed to completely perform their fiduciary duties when the separate leadership structure is applied and the power divided up, for instance, two different positions held by two separate individuals. They also mentioned that if a person were to hold both positions of Chairman and CEO, he will be able to act and make decision for his own-self interest using the shareholders' expenses due to the concentration of power.

HYPOTHESIS 4: Banks with a larger presence of blockholders, more institutional ownership and foreign ownership, and less government ownership, will have better performances.

Ownership structure in banking firms could be different from one and another. It matters because ownership structure explains all the parties controlling the bank and these parties are concerned about the major parties which are more powerful in influencing the bank's strategies (Tandelilin et al, 2007). The relationship in the ownership structure and bank performance has been examined in earlier studies. Morck, Shleifer, and Vishny (1988) found a non-linear relationship between Tobin's Q as the bank performance measurement, and share structure. There is an indication of positive relation between firm value and share structure in the early stage and an indication of negative relation in the later stage. Tandelilin et al. (2007) explained there are two factors in the bank ownership: the structure and the type of bank ownership. The structure of bank ownership focuses on the proportion of shareholders' control (majority and minority shareholders), while the type of bank ownership focuses on different institutional culture that owns the share of the bank, such as government ownership and foreign ownership. This paper considers both factors of ownership monitoring mechanism, the structure and type of the bank ownership. The ownership structure is represented by large ownership dummy variable, while type of bank ownership is represented by institutional ownership, government ownership, and foreign ownership. This study has combined all the proxy variables into one hypothesis relationship between ownership monitoring mechanism and bank performance.

a. Large Ownership

Large ownership or block shareholders are considered as controlling shareholders which may benefit or work to the detriment of the minority shareholders. Because of their power and stimulus to prevent expropriation, block shareholders can benefit the minority shareholders (Mitton, 2002). Shleifer and Vishney (1986) agree that the large shareholders are likely to have a positive influence to the firm value as the higher level of block-holders are able to work more effectively in monitoring management, allowing prevention of takeover threat. Morck, Shleifer, and Vishny (1988) also found a positive influence of ownership concentration on bank performance because the shareholders' capability to monitor managers properly increases. Allen and Cebenoyan (1991) observed that when the ownership concentration is low and the board is highly controlling the shared rights, the banks were more likely to acquire other banks that would add value to them. Additionally, the probability of entrenchment is higher, leading to poor performance of the bank. Principal - agent theory by Jensen and Meckling (1976) has explained that the cost of monitoring makes closely-held companies economically more efficient and have better performance than publicly owned companies. The inefficiency of public enterprises is suggested due to the lack of capital market discipline, such as lack of market monitoring, that leads the managers attempt to act in their own interests at the expense of shareholders' interests. Core, Holthausen, and Larcker (1999) agrees that agency costs are reduced by the existence of large shareholders since managers are more likely to act on the behalf of shareholders and reduce the degree of fraudulent reporting through manipulation accounting. However, controlling shareholders can harm the minority interest as well because they may pursue inconsistent objectives and they are able to transfer the resources out of firms for their benefit, which is known as "tunnelling" (Zulkafli and Samad, 2007). In addition, the interest of bank owners in closely-held companies or block shareholders in the publicly owned companies may be against the governmental regulators who have the objective to keep the financial system stable by taking less risk where it may not be in parallel with the shareholders' aim to maximize bank's value (Boot and Thakor, 1993).

b. Institutional Ownership

In relation to the previous discussion about large ownership, the institutional investor is the one who usually becomes the large block-holder. In the developed countries, the institutional investors have become one of the most important governance factors in the corporations due to their dominant role as the equity holders. The Financial Economists Roundtable Statement on Institutional Investors and Corporate Governance (1999) cites that extensive ownership gives strong motivation to institution to monitor and influence the management actions and policy decisions. Currently, these institutions hold almost 60% of the 1000 largest US companies' common shares. Therefore, these institutions have major influences in the capital market trading activities. On the other side, Maug (1998) argues that the ability of institution investors to influence company's actions and decisions is somehow dependent on the size of their shareholdings. If the institutional investors hold relatively few shares in the company, their shares are likely to be liquidated when the company gives poor performance, and therefore the institutional shareholders have less strong incentives to monitor the company's decision. Previous researches of McConnell and Serves (1990), Nesbitt (1994), and Del Guercio and Hawkins (1999) document that there is a consistency between the evidence and the hypothesis that institutional investors monitoring of companies are able to force the managers to focus more on a company's performance and attempt less to act out of self-interested behaviors. However, there are other previous studies (Agrawal and Knoeber, 1996; Duggal and Miller, 1999; and Karpoff et al., 1996) that did not find any significant relationships between institutional ownership and firm performance, causing this issue to have inconclusive result.

c. Government Ownership

According to La Porta et al. (2000), government ownership in banking firms is able to make managers do something unfavourably for certain issues, lower the level of risk, and serve special groups for political interest. They also assert that government ownership in banking firms or state-owned banks are commonly found in many developing countries. In order to meet the policy goals that may conflict with the owners' interest, the controlling government may use the listed company as a vehicle (Bai et al., 2003). The issue of banks corporate governance in many developing countries is more complicated by extensive political intervention in the banking operation system. The main problem of corporate governance in government ownership is the conflict between taxpayers and the government as principals, and the managers who control the bank where managers may have many interests and incentives, such as maximising their wealth, that are not aligned with the taxpayers (Tandelilin, 2007). Because the managers are more risk averse than shareholders, they will undertake less-risk decisions than optimal from taxpayers' viewpoint. The principal does not have power to control the agent in the government type of ownership, therefore the company represents the agent without principal (Arun and Turner, 2003). They also argue that the government as an effective monitor is virtually removed in the case of government ownership, because the regulators apply the governance, and when the government holds a dual role, as the owner and regulator, a conflict of interest between these roles cannot be avoided and the operations tend to be inefficient by nature. However, Arun and Turner (2002) further argue that divestment policy of government ownership would raise the other corporate governance issues. If the banks are fully privatised, they have to ensure the adequate deposit insurance schemes and supervisory engagements in order to protect depositors which lead to avoid the financial crash and keep the financial system stable. If the bank partially divests the government ownership, there will be an opportunity of expropriation on minor shareholders by the government as the major shareholder by using bank sources to help government problems.

d. Foreign Ownership

Zulkafli and Samad (2007) argue that at the extreme level, foreign ownership in banking firms, either domestic merger or cross border, will bring better governance practices from one bank to another. Tandelilin et al. (2007) also suggest that based on common opinion in developing countries, the foreign-owned banks outperform the domestic-owned banks because the better implementation of strong corporate governance. Furthermore, Bris and Cabolis (2003) conclude when the banking firms are acquired by foreign firms with stronger corporate governance, it will increase the industry performance measured by Tobin's Q. Micco, Panizza, and Yanez (2004) find that domestic banks in developing countries are becoming more efficient, in terms of overhead cost and spreads, by the presence of foreign firms, although there is no effect on profitability. During the financial crisis, the firms with unaffiliated foreign ownership concentration have smaller decrease in the share value (Baek et al., 2004)

For the general of ownership monitoring mechanism, we expect that banks with a higher level of large blockholders could increase the shareholders' capability to monitor managers that leads to a lower monitoring cost and more efficiency. Institutional ownerships are also expected to have the same influence as large shareholders, because most block-holders are institutional shareholders, especially in developed countries. On the contrary, banks that have government shareholders as the majority would perform worse because there is no monitor and control from the principal, with the conflicting role of government as the owner and the regulator simultaneously. However, foreign shareholders would bring better application of good corporate governance to domestic-owned banks, especially in developing countries, encouraging banks to improve their performance.

2.3.2. Corporate Governance in Developed and Emerging Market Countries

2.3.2.1 Corporate Governance in Developed Countries

There are several different corporate governance models in countries around the world. In the UK and USA, the companies apply a single-tiered board of directors, which dominated by non-executive directors (Mallin, 2011). This single-tiered board of directors is also called the 'Anglo-American' model. However, in USA, the CEO usually has the dual roles as the Chairman of the board as well, where it doesn't apply in the UK (Bowen, 2008). Some European countries required a two-tiered board for companies that operate in these countries. Two-tiered boards have management or executive Board, with entirely executive directors as its members to run daily operations, and supervisory board, with all non-executive directors aim to supervise and monitor the activities of management board (Hopt, 1997).

The closely-related literatures for this research include concurrent studies by Erkens D.H et al (2012) and Beltratti and Stulz (2011) have examined the relationship between the corporate governance and bank performance during the global financial crisis of 2007-2008. Erkens D.H. et al (2012) conclude that during the crisis, financial firms with higher board independence and higher institutional ownership experienced worse stock returns. Beltratti and Stulz (2011) argue that banks that have more shareholder-friendly boards give a significantly worse performance and reduced more loans than other banks during the crisis. However, during the longer period that covers booming and recession (1965-1999), Adams and Mehran (2011) found no relationship between board independence and performance. They show that crisis may affect the influence of corporate governance on bank performance. Many of these researches generally focus on the developed countries, which are basically an advanced economy compared to emerging market.

2.3.2.2 Corporate Governance in Emerging Market Countries

Similar to the developing countries, emerging countries have various corporate governance models as well. According to Asian Corporate Governance Association (ACGA) Hong Kong (2010), there are several different rules related to corporate governance for Asian countries. China and India require the companies to have independent directors at least one third of the board. Indonesia requires two-tiered board, with the board of commissioners as the supervisory board, and board of directors as the management board.

After the Asian crisis, many previous studies emphasize the importance of corporate governance in emerging markets (La Porta et al., 1998). Zulkafli and Samad (2007) explain that the emerging countries have implemented corporate governance reforms post Asian financial crisis. At the early stage, corporate governance in Asian countries was focused on resolution to the crisis such as restructuring, mergers and acquisition, and government intervention in private sectors. At the later stage, the Code of Corporate Governance was created and applied as a guideline for the companies in originating every plan and decision related to governance, in order to ensure the effectiveness in protecting the shareholders, as well as stakeholders' interest.

Lemmon and Lins (2001) state that the explanation of why some countries and firms have better fortune during the Asian crisis period relies on the differences in the structure corporate governance mechanisms and the strength of legal institutions that prevent the expropriation of minority shareholders. The empirical evidence in 14 emerging stock markets observed by Klapper and Love (2003) shows countries

with weak legal environments have more problems with corporate governance stipulation; and corporate governance has high positive correlation with operating performance and market valuation.

This research set another two hypotheses related to comparative analysis between developed and emerging market countries in terms of corporate governance influence to bank performance.

<u>HYPOTHESIS 5</u>: The differences between banks in developed and emerging market countries are (1) in their respective corporate bank's governances; and (2) in terms of corporate governance relationship with bank's performance.

CHAPTER III : RESEARCH METHODOLOGY

3.1 Data

3.1.1 Sample Selection

This research uses the annual data of 80 publicly listed financial firms from 15 countries (8 developed countries and 7 developing countries) over the period from 2007 to 2010. The sample selection process was constructed in order to obtain the most appropriate samples to represent the entire population, giving a confidence in the findings of this paper. The first step was country selection, choosing countries that could represent these different markets. The eight developed countries chosen were the G-8 members, Germany, Japan, USA, Italy, UK, Canada, France, and Russia. For the developing countries selection, several investment information sources, such as FTSE, MSCI, S&P, and Dow Jones, were used in order to find the emerging markets and choose which countries are most appropriate from those sources. The selected developing countries included members of the G-20 countries, the selection being Brazil, China, India, Indonesia, South Africa, Turkey, and Mexico. The second step was to select the banking firms as the sample. The sample selection was limited to publicly listed banks that have total assets of more than US\$10 billion and market capitalization of more than USD\$1 billion. The banks' total assets and market capitalization data were collected from Thomson One Banker. The sample for each country is limited only to the five biggest financial firms in terms of total assets and market capitalization, but more samples were added to countries of which the top 5 do not represent more than 55% of the industry's total assets and market capitalization in that country, such as Japan, the USA, China, India, Indonesia, and Turkey which contributed more than five companies. However, there are some countries that put in less than five companies, such as Mexico (3 banks), and South Africa (4 banks). Therefore, a total of 85 publicly listed banks were identified but, due to data availability, only 81 banks were included in this research, with 43 banks from developed countries and 38 banks from emerging markets.

3.1.2 <u>Representativeness of the Sample</u>

The samples chosen represent a significant fraction of the aggregate industry's total assets and market capitalization for the publicly listed banks in those countries, even though they are only a small portion of the number of publicly listed banks covered by the *Thomson One Banker* database. For the banking industry in developed countries, these research samples represent 80.5% and 77.6% of aggregate industry's total assets and market capitalization, respectively. Meanwhile, the emerging markets samples represented by 70.5% in terms of total assets and 76.64% in terms of market capitalization. Overall as 15

countries, these samples represent 78.1% and 77.2% of the aggregate industry's total assets and market capitalization, respectively. This indicates that all samples, whether in developed countries or emerging markets, represent more than 70% of the industry's assets and market capitalization. Table 1 shows the representativeness of the sample within each country.

Table 1. Representativeness of the Sample

The samples were taken from Thomson One Banker on June 2012 and modified on 15 August 2012. Total of publicly listed banks available on Thomson One Banker database is 1106 with 963 banks in developed countries and 143 banks in emerging market countries. The sample selection was limited to the five biggest banks within the country and must have total assets of more than US\$10 billion and market capitalization of more than USD\$1 billion and 84 banks were chosen. Due to unavailability data, I omitted 4 banks and used 80 banks as the sample, with 38 banks in emerging market countries and 42 banks in developed countries. Japan, USA, China, India, Indonesia, and Turkey contributed more than 5 banks because the top 5 do not represent more than 55% of the industry's total assets and market capitalization.

Country	% of Industry's Total Assets	% Industry's Total Market Cap	Country	% of Industry's Total Assets	% Industry's Total Market Cap
Canada	91.20%	90.40%	Brazil	93.40%	94.60%
France	96.20%	91.80%	China	66.50%	68.56%
Germany	95.75%	98.90%	India	61.30%	78.45%
Italy	83.95%	79.33%	Indonesia	72.84%	84.01%
Japan	57.43%	63.77%	Mexico	80.54%	85.05%
Russia	84.06%	98.62%	South Africa	98.55%	87.60%
United Kingdom	99.9%	99.89%	Turkey	84.77%	87.30%
USA	70.92%	63.34%			
Total Developed Countries	80.47%	77.58%	Total Emerging Markets	70.48%	76.65%
Total Overall	78.11%	77.21%			

3.2 Variable Measurement

The dependent variable for this research is the financial firms' performance measured by Tobin's Q. It is the ratio of the bank's market value to book value and is calculated as:

(Andres and Vallelado, 2008)

This research uses this variable as a proxy for bank performance following many previous studies (eg. Andreas and Vallelado, 2008; Caprio et al, 2007; Adams and Mehran, 2005; Yermack, 1996). To test robustness, another performance measure was used for this research, which is return on assets (ROA). ROA is calculated as:

This measure is used to test the robustness of the result because this research follows the previous study by Zulkafli and Samad (2007) where they used Tobin's Q as the market-based measure and ROA as the

accounting-based measure. All data used to calculate the Tobin's Q and ROA were collected from *Datastream* and completed by the bank's annual report.

For independent variables, this paper examines two mechanisms of corporate governance, which are the internal control mechanism and the ownership monitoring mechanism. The Internal control mechanism includes (1)board size, (2)board independence, and (3)CEO duality. Board size is the total number of board members. Some countries have a one-tier board system and some have a two-tier board system. Compared to the banks in the one-tier board system countries, banks that operate in the two-tier board system have a much higher number of board members because they have separate boards for monitoring and management functions, for example in Germany with its supervisory board and management board and in Indonesia with its board of commissioners and board of directors, this research includes all members from both boards in the board size variable. Board independence is measured by the proportion of outside directors in the total board of directors, calculated as the number of outside directors divided by the total number of the board members. The outside directors include the non-executive directors and independent non-executive directors. CEO duality is a dummy variable that distinguishes between companies which apply a combined or separated leadership structure. This dummy variable takes the value of one for banks that have combined leadership structure or has the same person in the position of Chairman and CEO, and zero for those banks that have separated leadership structure or have two separate individuals for those two different positions. All data for board size, board independence, and CEO duality are taken from Bloomberg. However, data from some countries, mostly for emerging countries, are not included in *Bloomberg*, therefore the missing data is completed using the company's annual report.

The second mechanism that will be analyzed in this research is the ownership monitoring mechanism, because the bank ownership structure might determine the composition of the board of directors. The ownership monitoring mechanism variables include (1)the presence of large shareholders, (2)institutional ownership, (3)government ownership, and (4)foreign ownership. The large shareholders or block-holders variable is represented with dummy variable that equals one if there are one or more shareholders that hold more than 10% ownership of the bank. Institutional, government, and foreign ownership variables are calculated as the percentage of shares held by each different type in the bank ownership. Institutional ownership refers to institutional fund managers, investment banking, and other firms. Government ownership is mostly found in emerging countries where there are many state-owned banks who dominate their banking industry. Foreign ownership refers to shares held by the other parties, whether institutional or individuals, outside the country. It might be through merger and acquisition, unaffiliated foreign ownership, or other company actions. For the large shareholders, institutional, government, and foreign ownership variables, the data are collected from *Thomson One Banker*.

In addition, this paper uses year dummy variables, developed-countries dummy variable (indicating whether the companies are included in developed countries or not), and country dummy variables to capture whether the country-specific corporate governance characteristics are related with the cross-sectional variation in bank performance within countries.

3.3 Summary Descriptive Statistics and Correlations

Table 2 and Table 3 present the summary statistics for all variables in developed countries and emerging markets, respectively. They show that the sample of 320 observations is comparatively balanced

between the developed countries category with 168 observations (42 companies for four years) and the emerging markets category with 152 observations (38 companies for four years).

For bank performance in the developed countries category, Table 2 reports the average Tobin's Q ratio is 1.03 and the return on assets is 0.41%. The median values are quite close to the mean values with 1.02 for Tobin's Q and 0.37% for ROA. This happens because the panel data shows a low standard deviation for both bank performance measures. The summary of bank performance variables in emerging markets shows that all variables have a higher mean compared to variables in developed countries. The average Tobin's Q ratio in emerging markets is slightly higher at 1.08, while the average return on assets indicates a substantially higher result at 1.67% during the sample period. The mean and median values are quite similar for the Tobin's Q and ROA at 1.06 and 1.50%, respectively. The standard deviation of the Tobin's Q and ROA in emerging markets are not significantly different to those from the developed countries.

Table 2. Summary Descriptive Statistic for Banks in Developed Countries

This table presents the summary statistics of 168 observations from 42 banks in developed countries in 4 years. Tobin's Q and ROA were calculated using data from Datastream for 2007-2010. Board size, board independence, and CEO duality were taken from Bloomberg. Large shareholders, institutional ownership, foreign ownership, and government ownership data were taken from Thomson One Banker. ROA, board independence, institutional, foreign, and government ownership are in percent. Data for independent variables were taken from 2006 to 2009 because I used lagged variable for regression. The missing data were completed using the company's annual report. The summary descriptive statistic is done using STATA.

tobinsq 168 1.03 0.07 0.86 0.99 1.02 1.05 1. roa 168 0.41 0.70 -3.01 0.14 0.37 0.76 2. boardsiz 168 18.01 7.50 7.00 13.00 17.00 22.50 43.00 independ 168 62.01 27.29 0.00 40.40 69.10 85.71 94.40 ceodual 168 0.17 0.37 0.00 0.00 0.00 1.00 1.01 largeshr 168 0.23 0.42 0.00 0.00 0.00 1.01 inst 168 56.79 33.78 0.00 36.05 60.96 72.32 300.42 foreign 168 20.58 31.31 0.00 5.42 9.40 25.34 300.42	Variable	n	Mean	S.D.	 Min	.25	Quantile Mdn	s .75	Мах
govt 168 3.77 20.23 0.00 0.00 0.00 0.00 197.	tobinsq roa boardsiz independ ceodual largeshr inst foreign govt	168 168 168 168 168 168 168 168 168 168	1.03 0.41 18.01 62.01 0.17 0.23 56.79 20.58 3.77	0.07 0.70 7.50 27.29 0.37 0.42 33.78 31.31 20.23	0.86 -3.01 7.00 0.00 0.00 0.00 0.00 0.00 0.00 0	$\begin{array}{c} 0.99\\ 0.14\\ 13.00\\ 40.40\\ 0.00\\ 0.00\\ 36.05\\ 5.42\\ 0.00\\ \end{array}$	$\begin{array}{c} 1.02\\ 0.37\\ 17.00\\ 69.10\\ 0.00\\ 0.00\\ 60.96\\ 9.40\\ 0.00\\ \end{array}$	1.05 0.76 22.50 85.71 0.00 0.00 72.32 25.34 0.00	1.54 2.54 43.00 94.44 1.00 1.00 300.51 300.36 197.27

Table 3. Summary Descriptive Statistic for Banks in Emerging Markets

This table presents the summary statistics of 152 observations from 38 banks in emerging market countries in 4 years. Tobin's Q and ROA were calculated using data from Datastream for 2007-2010. Board size, board independence, and CEO duality were taken from Bloomberg. Large shareholders, institutional ownership, foreign ownership, and government ownership data were taken from Thomson One Banker. ROA, board independence, institutional, foreign, and government ownership are in percent. Data for independent variables were taken from 2006 to 2009 because I used lagged variable for regression. The missing data were completed using the company's annual report. The summary descriptive statistic is done using STATA.

						Quantiles		
Variable	n	Mean	S.D.	Min	.25	Mdn	.75	Мах
tobinsq	152	1.08	0.09	0.88	1.02	1.06	1.12	1.35
hoardsiz	152	13.84	3.94	6.00	10.00	14.00	17.00	4.39
independ	152	36.75	19.86	0.00	23.31	32.29	47.06	80.00
ceodual	152	0.15	0.36	0.00	0.00	0.00	0.00	1.00
largeshr	152	0.80	0.40	0.00	1.00	1.00	1.00	1.00
ĭnst	152	70.26	47.71	0.00	55.71	75.86	88.90	382.00
foreign	152	23.56	50.07	-44.31	1.92	7.23	22.13	382.00
qovt	152	16.83	28.84	0.00	0.00	0.00	47.02	99.11

As reported in Table 2, the results of the variable measures for corporate governance in terms of board structure show that the average of board size, board independence, and CEO duality in developed countries are 18.01, 62.01%, and 0.17, respectively. The board size average is consistent with the average board size obtained by Adams and Mehran (2008) in the period of 1986-1999 for publicly traded bank holding companies in the US. However, the result for board independence is lower than in many previous studies (Adams and Mehran, 2008 (69%); Erkens et al, 2012 (85%); Andres and Vallelado, 2008 (79%)) because these previous studies investigate mostly either US-only financial firms or North America and European banks. This research includes Russia and Japan in the developed country category where most companies in these countries have a low number of independent directors. Table 3 reports that the average board size, board independence, and CEO duality in emerging markets are 13.84, 36.75%, and 0.15, respectively. Compared to banks in developed countries, banks in emerging markets tend to have a smaller board size and less independent boards. These variables have higher results compared to the results obtained by the previous closely related study by Zulkafli and Samad (2007) with an average of board size of 10.39 and board independence of 32.29% for Asian emerging markets in 2004. In addition, whether banks are from developed countries or emerging markets, both are less likely to have the same person as Chairman and CEO. In terms of ownership structure, the panel data reports that banks in emerging markets tend to have higher institutional, government, and foreign ownership, and more likely to have a large shareholder than banks in developed countries.

Table 4. Summary Descriptive Statistic for Banks in Both Groups

This table presents the summary statistics of 320 observations from 80 banks in developed and emerging market countries in 4 years. Tobin's Q and ROA were calculated using data from Datastream for 2007-2010. Board size, board independence, and CEO duality were taken from Bloomberg. Large shareholders, institutional ownership, foreign ownership, and government ownership data were taken from Thomson One Banker. ROA, board independence, institutional, foreign, and government ownership are in percent. Data for independent variables were taken from 2006 to 2009 because I used lagged variable for regression. The missing data were completed using the company's annual report. The summary descriptive statistic is done using STATA.

						• Quantile	s	
Variable	n	Mean	S.D.	Min	.25	Mdn	.75	Мах
tobinsq	320	1.05	0.08	0.86	1.01	1.03	1.07	1.54
roa	320	1.01	0.96	-3.01	0.33	0.94	1.54	4.59
boardsiz	320	16.03	6.42	6.00	11.00	15.00	18.00	43.00
independ	320	50.01	27.13	0.00	25.00	48.53	73.62	94.44
ceodual	320	0.16	0.37	0.00	0.00	0.00	0.00	1.00
largeshr	320	0.50	0.50	0.00	0.00	0.50	1.00	1.00
inst	320	63.19	41.47	0.00	42.05	66.28	80.72	382.00
foreign	320	21.99	41.25	-44.31	3.12	8.68	25.14	382.00
govt	320	9.98	25.51	0.00	0.00	0.00	0.00	197.27

After the samples from developed and emerging countries are combined in Table 4, the average results of all bank performance and corporate governance variables are found for both groups. Although the average of ROA in developed countries is very low, the ROA result for emerging markets boosts the overall mean for the ROA ratio to above 1. However, the standard deviation of ROA from combined samples is much higher than standard deviation of ROA in each group. The data shows that the ROA variation becomes greater when banks in emerging and developed countries are mixed. The standard deviations of the other variables are between the results of the developed countries and the emerging markets, the same as the mean values.

Table 5. Correlation Matrix

	tobinsq	roa	boards~e	indepe~e	ceodua~y	largeown	instit~l	foreig~t	govtinst
tobinsq	1.0000								
roa	0.4388	1.0000							
boardsize	-0.2338	-0.3164	1.0000						
independence	-0.2527	-0.3218	0.3872	1.0000					
ceoduality	-0.0025	0.0222	-0.1432	0.2644	1.0000				
largeown	0.1760	0.3238	-0.2590	-0.3869	-0.1622	1.0000			
institutio~l	-0.0827	0.0608	-0.1591	-0.0749	-0.0321	0.5423	1.0000		
foreigninst	-0.0940	-0.0044	-0.0990	-0.0496	-0.1353	0.1693	0.6888	1.0000	
govtinst	-0.0645	0.0469	-0.1685	-0.1504	0.0711	0.3573	0.3328	0.0952	1.0000

This table shows the correlation in each variable by using 80 samples banks from developed and emerging market countries. Correlation matrix is done using STATA.

Table 5 reports the correlation matrix between the variables. As seen in the table, there is no strong correlation between the dependent variables, the Tobin's Q and ROA, and the independent variables, which are all corporate governance variables. The correlation between independent variables is relatively low, except between institutional ownership and foreign ownership that has a correlation of 0.688.

3.4 The Econometric Model

This research uses panel data analysis because panel data is the most efficient tool when the sample collected is a combination of time series and cross-sectional data. For empirical analysis, Ordinary Least Square (OLS) multi-regression analysis is employed to analyse the influence of each corporate governance factor (the independent variables) on bank performance (the dependent variable) within developed and emerging countries. The OLS regression is done using STATA software and comparative studies are conducted to identify the similarities and differences of corporate governance's influence on banks' performance between these groups. I ran an OLS regression for all countries and also a separate OLS regression for emerging and developed countries to see the difference and conduct comparative analysis of the regression results. Due to the high correlation between institutional ownership and foreign ownership, this research analyses the regression models by separating ownership measurement variables into two groups: first, large shareholders and institutional ownership, and second, foreign and government ownership. The regression model used in this study is as follows:

 $\begin{array}{l} OLS \ regression \ model \ for \ all \ countries: \\ \mbox{PERF}_{a} = \ \beta o \ + \beta_1 BSIZE_{it} \ + \ \beta_2 BIND_{it} \ + \ \beta_3 CEO_{it} \ + \ \beta_4 LARGE_{it} \ + \ \beta_5 INST_{it} \ + \\ \ \beta_6 YEAR_i \ + \ \beta_7 DEVELOPED_t \ + \ \epsilon_{it} \end{array}$

```
OLS regression model for each group:

PERF<sub>it</sub> = \beta o +\beta_1BSIZE_{it} + \beta_2BIND_{it} + \beta_3CEO_{it} + \beta_4LARGE_{it} + \beta_5INST_{it} + \beta_5YEAR_i + \beta_7COUNTRY_t + \epsilon_{it}
```

```
\begin{split} \mathsf{PERF}_{it} &= \beta 0 + \beta 1 \mathsf{BSIZE}_{it} + \beta 2 \mathsf{BIND}_{it} + \beta 3 \mathsf{CEO}_{it} + \beta 4 \mathsf{GOVT}_{it} + \beta 5 \mathsf{FOR}_{it} + \beta 6 \mathsf{YEAR}_{i} \\ &+ \beta 7 \mathsf{COUNTRY}_{t} + \epsilon_{it} \end{split}
```

Where:

i is financial firms 1-n; *t* is years 2007-2010.

 β is the estimated coefficients for the constant and each of the independent variables in the model. PERF is the measure of bank performance, either Tobin's Q or ROA.

BSIZE is the number of board members.

BIND is the percentage of independent directors in the board

CEO is a dummy variable, one if the observation has one person as a Chairman and CEO, and zero otherwise.

LARGE is a dummy variable, one if there is a single shareholding in the firm at least 10%, or zero otherwise.

INST is the percentage of shares held by institutional shareholders.

GOVT is the percentage of shares held by government institutions.

FOR is the percentage of shares held by foreign institutions.

YEAR is a dummy variable that equals one for each of the four years, and zero otherwise.

DEVELOPED is a dummy variable, one if the bank is included in developed countries and zero otherwise.

COUNTRY is a dummy variable, one for each of the fifteen countries, and zero otherwise. Et is the error term

In this research, there is a problem that the independent variables and dependent variables might be determined simultaneously. Following Andres and Vallelado (2008), this paper uses lags of independent variables as the instruments to deal with the endogeneity problem. This research runs regressions using two dependent variables, Tobin's Q and ROA, as proxies for bank performance to test the robustness of the results. This research analyses the determinants of the corporate governance influence on bank performance using an F test of joint significance for all independent variables. The F test aims to test the hypothesis that the corporate governance factors have a significant influence on bank performance.

CHAPTER IV : EMPIRICAL RESULTS

4.1 Characteristics of Banks in Developed and Emerging Markets Countries

As mentioned before, one of the motives of this research is to analyse the difference between developed countries and emerging markets in terms of banks' corporate governance and performance within the same timeframe (2007-2010). A two-sample mean-comparison test using a T-test was conducted to assess whether there is a significant difference in terms of banks' performance and corporate governance between developed and emerging countries, with the null hypothesis that the two groups have equal means. Banks in emerging markets are expected to have better performance.

The result of the T-test in Table 6 shows there are statistically significant differences between banks in emerging markets and developed countries at the 1% significance level for all variables, except CEO duality and foreign ownership. These results support Hypothesis 5 in that there are differences between banks in developed and emerging market countries in terms of different corporate governance. The average for each bank performance measure in the emerging markets is significantly higher than in developed countries; and this result supports the expectation that banks in emerging markets were affected less by the crisis and performed better than banks in developed countries. In terms of corporate governance, whether using internal control or an ownership monitoring mechanism, each mechanisms

has one variable that gives an insignificant difference between emerging markets and developed countries. Corporate governance practice in terms of CEO duality is not statistically different between these groups, with an average of 0.15 in emerging markets and 0.167 in developed countries, which means both groups are less likely to have one person as a Chairman and CEO. Although the mean value of foreign ownership in emerging markets looks slightly higher than developed countries, it is apparently not statistically different due to the high standard deviation of foreign ownership in emerging markets and developed countries.

Table 6. Mean-Comparison Test

This table shows the comparison for the average of each variable between developed countries and emerging markets. Data for Tobin's Q and ROA were taken from 2007 to 2010 and data for the other variables were taken from 2006 to 2009. Two-sample mean-comparison t-test is done using STATA.

	Banks in Emerging Markets	Banks in Developed Countries	t-value	p-value
Bank Performance				
Tobin's Q	1.080421	1.026072	6.0819	0.000***
ROA	1.673158	0.4114881	15.4643	0.000***
Internal Control Mechanism				
Board Size	13.84211	18.00595	-6.1199	0.000***
Board Independence	36.74513	62.00696	-9.3836***	0.000***
CEO Duality	0.1513158	0.16667	-0.3736	0.7090
Ownership Monitoring Mechanism				
Large Ownership	0.7960526	0.2335329	12.0942***	0.000***
Institutional Ownership	70.25796	56.79089	2.9351***	0.0036***
Foreign Ownership	23.55934	20.57917	0.6447	0.5196
Government Ownership	16.83322	3.771012	4.7247***	0.000***

Notes: *** *Statistically significant at 1% (two-tailed)*

4.2 Multiple Regression Results

The relationship between bank performance and corporate governance from 2007 to 2010 was examined by regressing two proxies of bank performance, Tobin's Q and ROA, on corporate governance variables, which are board size, board independence, CEO duality, large ownership, institutional ownership, foreign ownership, and government ownership.

4.2.1 <u>Regression Result Using Tobin's Q as Dependent Variable</u>

Table 7 presents the regression results for all corporate governance mechanisms with Tobin's Q as the proxy of bank performance. Column (i) and (ii) show the regression results without the developed-country dummy, while column (iii) and (iv) include the developed-country dummy. This research shows the regression results when the ownership monitoring mechanism variables are separated, either only including large shareholders and institutional ownership, or government and foreign ownership.

Table 7. Regression Results Using Tobin's Q

This table shows the OLS multiple regression result of 80 samples from 2007 to 2010 using Tobin's Q as dependent variable. Column (i) and (ii) show regression model without developed-country dummy. Column (iii) and (iv) include developed-country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

TOBIN'S Q	(i)	(ii)	(iii)	(iv)
Poord Size	-0.0017	-0.0021	-0.0015	-0.0016
Board Size	(0.006)***	(0.001)***	(0.017)**	(0.009)***
Board Independence	-0.0004	-0.0007	-0.0002	-0.0003
Board Independence	(0.034)**	(0.000)***	(0.232)	(0.115)
CFO Duality	0.011	0.006	0.0059	0.0023
	(0.388)	(0.668)	(0.638)	(0.849)
I arga Ownershin	0.044		0.025	
	(0.000)***		(0.037)**	
Institutional Awnorshin	-0.0004		-0.0004	
Institutional Ownership	(0.005)***		(0.021)**	
Foreign Ownership		-0.0002		-0.0002
Toreign Ownership		(0.202)		(0.232)
Government Ownershin		-0.0003		-0.0004
Government Ownersmp		(0.083)*		(0.026)**
Constant	1.134	1.153	1.145	1.154
Constant	(0.000)***	(0.000)***	(0.000)***	(0.000)***
v2008	-0.027	-0.024	-0.026	-0.024
y2000	(0.047)**	(0.072)*	(0.055)*	(0.072)**
v2009	-0.049	-0.044	-0.047	-0.043
y200)	(0.000)***	(0.000)***	(0.000)***	(0.000)***
v2010	-0.053	-0.045	-0.050	-0.045
y2010	(0.000)***	(0.001)***	(0.000)***	(0.000)***
Developed			-0.033	-0.046
			(0.013)**	(0.000)***
Adjusted R2	0.1663	0.1375	0.1857	0.1899
Number of Observations	320	320	320	320
F-test	11.45***	8.40***	12.15***	12.12***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

By omitting foreign and government ownership in the regression model, Column (i) reports that the influence of board size, large shareholders, and institutional ownership are statistically significant at 1% where board size and institutional ownership have negative relationship and large shareholders has a positive relationship to Tobin's Q. The coefficient of board independence is negative, statistically significant at 5%, while CEO duality does not have a significant influence on Tobin's Q. Column (ii) presents the results where we include foreign and government ownership variables and omit large shareholders and institutional ownership. The Board size variable still has a significant negative relationship at 1%, but the analysis of board independence changes from being significantly negative at 5% to significantly negative at 1%. CEO duality and foreign ownership do not have a significant influence on bank performance, while the coefficient for government ownership is negative, statistically significant at 10%.

The year dummies for 2009 and 2010 have constant significance in their relationship with bank performance in column (i) and (ii), while the coefficient of the year dummy for 2008 changes in

significance level. These columns present the evidence that the significance level of year dummy 2008 changes from 5% to 10% when we change the ownership variables, while year dummies of 2009 and 2010 are steady at 1% of significance level in both columns.

The adjusted R^2 in column (i) is higher than column (ii), which means large shareholder and institutional ownership variables are better in explaining the dependent variable than foreign and government ownership variables. At the 10% confidence level, board size, board independence, institutional ownership, and government ownership have significant negative influence, but large ownership has significant positive relation to Tobin's Q. This means, without taking into account developed-country specific characteristics, the Tobin's Q will be greater when a bank has a smaller board size, a less independent board, more block-holders, and less institutional and government ownership. Neither CEO duality nor foreign ownership has significant influence to bank performance.

Column (iii) and (iv) show the regression results including developed-country dummies in the regression model. Developed-country dummies account for the specific characteristics of developed countries, which differentiate them from the emerging markets, in relation to corporate governance and bank performance. By taking into account these dummy, the coefficient of board independence becomes insignificant, regardless which ownership variables are used. Without foreign and government ownership, column (iii) reports that the significance level of board size, large ownership, and institutional ownership have altered from 1% to 5%. The significance level of government ownership remain insignificant as in the previous columns.

After the developed-country dummies were included, the adjusted R^2 in the regression model with foreign and government ownership in column (iv) had a higher adjusted R^2 than the regression model with large and institutional ownership in column (iii). These results are in contrast with regression models without the developed-country dummy, where the regression model with foreign and government ownership generated a lower adjusted R^2 . When developed-countries specific characteristics are taken into account, foreign and government ownership variables can explain the dependent variable better than large shareholders and institutional ownership variables. Having a developed-country dummy in the regression model also improves the adjusted R^2 , although it still indicates very low relationship because only around 19% of the dependent variable can be explained by the independent variables.

4.2.2 <u>Regression Results Using ROA as The Dependent Variable</u>

Table 8 investigated the regression results using ROA as the proxy for bank performance. Without the developed-country dummies, Column (i) and (ii) suggest that the coefficients of board size and board independence are negative and statistically significant at 1%. The coefficient of large ownership is positive and significant at the same level. Although the coefficient of institutional ownership is negative and significant at 5%, the foreign and government ownership variables are insignificant at the conventional level. Similar to previous results, CEO duality does not have a significant relationship with bank performance. Column (i) and (ii) show that the year dummies of 2008 and 2009 are statistically significant at 1% irrespective of the ownership variables. However, the year dummy for 2010 changes from significant at 10% to insignificant at a conventional level, with regard to the ownership variables that were included in the model.

Table 8 Regression Results Using ROA

This table shows the OLS multiple regression result of 80 samples from 2007 to 2010 using ROA as dependent variable. Column (i) and (ii) show regression model without developed-country dummy. Column (iii) and (iv) include developed-country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

ROA	(i)	(ii)	(iii)	(iv)
Doord Size	-0.025	-0.030	-0.017	-0.017
Board Size	(0.001)***	(0.000)***	(0.004)***	(0.002)***
Board Indonandonao	-0.006	-0.009	0.0001	0.0000
Board Independence	(0.002)***	(0.000)***	(0.958)	(0.996)
CEO Duolity	0.229	0.150	0.022	0.058
	(0.113)	(0.340)	(0.863)	(0.650)
Larga Awnorshin	0.619		-0.073	
	(0.000)***		(0.565)	
Institutional Ownership	-0.003		-0.0003	
Institutional Ownership	(0.028)**		(0.762)	
Foreign Ownershin		-0.0003		-0.0003
Toreign Ownersinp		(0.764)		(0.809)
Government Ownershin		-0.0005		-0.0047
Government Ownersmp		(0.835)		(0.033)**
Constant	1.852	2.217365	2.246	2.247
Constant	(0.000)***	(0.000)***	(0.000)***	(0.000)***
v2008	-0.492	-0.441	-0.445	-0.435
·	(0.000)***	(0.001)***	(0.000)***	(0.000)***
v2009	-0.561	-0.472	-0.475	-0.449
· · · · · · · · · · · · · · · · · · ·	(0.000)***	(0.002)***	(0.000)***	(0.000)***
v2010	-0.274	-0.158	-0.164	-0.139
y= 010	(0.052)*	(0.245)	(0.167)	(0.227)
Developed			-1.241	-1.253
			(0.000)***	(0.000)***
Adjusted R2	0.2339	0.1724	0.4729	0.4862
Number of Observations	320	320	320	320
F-test	17.73***	12.01***	41.13***	41.24***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

The results indicate that the ROA will be greater when the companies have a smaller board size, less independent boards, less institutional ownership, and more block-holders. Foreign and government ownership have no significant relationship with ROA and they are not able to explain the dependent variable better than large shareholders and institutional ownership. This is represented by the adjusted R^2 where column (ii) has a much lower adjusted R^2 than column (i). Compared to the regression result using Tobin's Q, all of the results are robust, except government ownership. The market-based measure is better to portray the government ownership relationship with bank performance than using the accounting-based measure as a proxy for bank performance.

After adding the developed-country dummies in Column (iii) and (iv), only board size and government ownership that have a statistically significant relationship with bank performance at 5% and 1%, respectively. Board independence, large ownership, and institutional ownership become insignificant.

By using ROA as the robustness test for the Tobin's Q regression results, we conclude that almost all results report a robust outcome, except large ownership and institutional ownership.

The year dummies for 2008 and 2009 are negative, statistically significant at 1% as in prior columns without the developed-country dummies. The developed-country dummies also match this significance level. However, the year dummy for 2010 is insignificant in the regression model with the developed-country dummies, regardless of the ownership mechanism variables.

The adjusted R^2 in the regression models with the developed-country dummies using ROA have the same pattern as the regression models with the developed-country dummies using Tobin's Q. As seen in Column (iii) and (iv), the regression model that includes government and foreign ownership variables generates a higher adjusted R^2 than the model with large shareholders and institutional ownership. This is caused by government ownership which has a significant influence, while large shareholders and institutional ownership have no significant influence on ROA. The adjusted R^2 of the regression model with the developed-country dummies, although the adjusted R^2 is still below 50%, which is not considered high enough to be said that the dependent variable is well explained by the independent variables. Due to many changes of significance level and the big improvement of adjusted R^2 , we can conclude that developed-countries specific characteristics have a very important role in verifying the influence of corporate governance on bank performance.

Overall, the regression results using ROA generate a higher adjusted R^2 than Tobin's Q, which means the accounting-based measure can be explained better by the independent variables. Even though the market-based measure is less influenced by the joint independent variables, the Tobin's Q has a significant relationship with four corporate governance variables, which are board size, large shareholders, institutional ownership, and government ownership, while ROA is only significantly related with two independent variables (board size and government ownership). All the regression results, whether using Tobin's Q or ROA, are significant by the F-test at the 1% level, which means that jointly all the corporate governance variables have a significant influence on bank performance, using either Tobin's Q or ROA.

4.2.3 <u>Comparative Analysis Between Banks in Developed Countries and Emerging Market</u> <u>Countries</u>

Tables 9 to 12 show the separate OLS regression results using Tobin's Q and ROA in order to compare the corporate governance influence on bank performance between developed countries and emerging markets. These two groups generate some similarities and differences in terms of their relationship between corporate governance and bank performance. Table 9 and 10 present the regression results for developed countries using Tobin's Q and ROA, respectively, while Table 11 and 12 report regression results for results for emerging markets with the same bank performance proxies.

Table 9 Regression Results Using Tobin's Q for Developed Countries

This table shows the OLS multiple regression result of 48 samples banks in developed countries from 2007 to 2010 using Tobin's Q as dependent variable. Column (i) and (ii) show regression model without country dummy. Column (iii) and (iv) include country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

TOBIN'S Q (Developed)	(i)	(ii)	(iii)	(iv)
Board Size	-0.002 (0.000)***	-0.003 (0.000)***	-0.001 (0.057)*	-0.001 (0.029)**
Board Independence	-0.0002 (0.392)	-0.0003 (0.258)	-0.0001 (0.579)	-0.0001 (0.602)
CEO Duality	0.006 (0.532)	-0.006 (0.450)	0.008 (0.287)	0.008 (0.283)
Large Shareholders	0.024 (0.049)**		0.003 (0.823)	
Institutional Ownership	-0.0002 (0.169)		-0.000 (0.870)	
Foreign Ownership		-0.0005 (0.075)*		0.0002 (0.529)
Government Ownership		0.0003 (0.435)		-0.0002 (0.671)
Constant	1.098 (0.000)***	1.108 (0.000)***	1.044 (0.000)***	1.039 (0.000)***
y2008	0.024 (0.187)	0.025 (0.155)	0.022 (0.153)	0.021 (0.166)
y2009	-0.022 (0.042)**	-0.021 (0.049)**	-0.025 (0.007)***	-0.026 (0.006)***
y2010	-0.047 (0.000)***	-0.045 (0.000)***	-0.049 (0.000)***	-0.049 (0.000)***
Country dummy	Not included	Not included	Included	Included
Adjusted R2	0.212	0.222	0.409	0.411
Number of Observations	168	168	168	168
F-test	8.22***	8.32***	16.57***	14.79***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

As seen in Table 9, 10, and 12, all regression results without country dummy variables agreed that a smaller board size leads to better performance, whether in developed countries or emerging markets. These results are consistent with theories that a lower number of directors is more effective. By adding country dummies, only Table 8 shows a significant negative relationship between board size and bank performance.

On the other hand, board independence does not give a robust result. With the market-based performance measure, board independence has no significant relationship, regardless whether in developed or emerging market countries, with or without country dummies. The results are varied when the accounting-based performance measure is used. There is a difference in the board independence relationship with bank performance in these two groups. There is a positive relationship between board independence and bank performance in developed countries. This result does not support the recent closely-related paper by Erkens et al (2012) which found a significant negative relationship between

board independence and bank performance in 30 countries that suffered most from the crisis. In contrast, this research finds a negative relationship in the regression model for emerging markets without country dummies, although the result shows an insignificant relationship after country dummies are added. This relationship is only a success portrayed using the ROA, while using Tobin's Q is unsuccessful in identifying a significant relationship.

Table 10 Regression Results Using ROA for Developed Countries

This table shows the OLS multiple regression result of 48 samples banks in developed countries from 2007 to 2010 using ROA as dependent variable. Column (i) and (ii) show regression model without country dummy. Column (iii) and (iv) include country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

ROA (Developed)	(i)	(ii)	(iii)	(iv)
	-0.013	-0.014	0.005	0.002
Board Size	(0.016)**	(0.011)**	(0.570)	(0.767)
	0.006	0.006	0.005	0.005
Board Independence	(0.000)***	(0.005)***	(0.100)*	(0.065)*
	0.120	0.125	0.245	0.215
CEO Duality	(0.258)	(0.273)	(0.147)	(0.192)
	-0.015		0.147	
Large Shareholders	(0.927)		(0.281)	
	-0.000		-0.001	
Institutional Ownership	(0.791)		(0.411)	
		0.003		0.004
Foreign Ownership		(0.474)		(0.552)
		-0.009		-0.010
Government Ownership		(0.182)		(0.225)
	0.673	0.647	0.448	0.379
Constant	(0.000)***	(0.002)***	(0.147)	(0.186)
	-0.594	-0.608	-0.613	-0.632
y2008	(0.000)***	(0.000)***	(0.000)***	(0.000)***
	-0.756	-0.721	-0.775	-0.747
y2009	(0.000)***	(0.000)***	(0.000)***	(0.000)***
	-0.326	-0.282	-0.364	-0.308
y2010	(0.022)**	(0.033) **	(0.008)***	(0.014)**
Country dummy	Not included	Not included	Included	Included
Adjusted R2	0.216	0.258	0.227	0.2694
Number of Observations	168	168	168	168
F-test	11.42***	11.89***	8.15***	8.51***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

The CEO duality variable has no significant relationship with bank performance in developed countries, but this variable shows a significant positive relationship with ROA in emerging market countries. This result is consistent with study of Zulkafli and Samad (2007) where CEO duality is detrimental to the bank performance of Asian emerging markets in 2004.

In terms of ownership monitoring mechanisms, Table 9 and 10 show that large shareholders and foreign ownership have a significant relationship to bank performance when we do not include country dummies

in the regression models. The relationship of all ownership variables with bank performance in developed countries became insignificant after country dummies were included in the regression model.

Table 11 Regression Results Using Tobin's Q for Emerging Markets

This table shows the OLS multiple regression result of 32 samples banks in emerging market countries from 2007 to 2010 using Tobin's Q as dependent variable. Column (i) and (ii) show regression model without country dummy. Column (iii) and (iv) include country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

TOBIN'S Q (Emerging)	(i)	(ii)	(iii)	(iv)
Board Size	0.002 (0.275)	0.002 (0.360)	-0.003 (0.248)	-0.003 (0.213)
Board Independence	-0.0005 (0.140)	-0.0005 (0.197)	0.000 (0.993)	0.000 (0.970)
CEO Duality	0.014 (0.585)	0.019 (0.437)	-0.008 (0.833)	-0.002 (0.948)
Large Shareholders	0.040 (0.100)*		0.052 (0.031)**	
Institutional Ownership	-0.0005 (0.028)**		-0.0004 (0.039)**	
Foreign Ownership		-0.0002 (0.217)		-0.0003 (0.053)*
Government Ownership		-0.0006 (0.002)**		-0.0009 (0.000)***
Constant	1.124 (0.000)***	1.133 (0.000)***	1.144 (0.000)***	1.168 (0.000)***
y2008	-0.083 (0.000)***	-0.075 (0.000)***	-0.086 (0.000)***	-0.072 (0.000)***
y2009	-0.079 (0.000)***	-0.068 (0.001)***	-0.082 (0.000)***	-0.0623 (0.000)***
y2010	-0.058 (0.011)**	-0.045 (0.043)**	-0.060 (0.005)***	-0.039 (0.048)**
Country dummy	Not included	Not included	Included	Included
Adjusted R2	0.1275	0.139	0.2721	0.3184
Number of Observations	152	152	152	152
F-test	3.75***	4.70***	5.28***	5.49***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

Table 11 and 12 report that the negative relationships of institutions and government ownership with bank performance in emerging markets are robust. These negative relationships support the findings of Erkens et al (2012) and Zulkafli and Samad (2007), respectively. The robustness can also be seen for the large shareholders which have a significant positive relationship with the market-based and accounting-based performance measures. Table 11 shows that when using Tobin's Q as the dependent variable, the relationship between foreign ownership and bank performance is significantly negative, but the coefficient of foreign ownership becomes insignificant when ROA is used as the dependent variable.

Table 12 Regression Results Using ROA for Emerging Markets

This table shows the OLS multiple regression result of 32 samples banks in emerging market countries from 2007 to 2010 using ROA as dependent variable. Column (i) and (ii) show regression model without country dummy. Column (iii) and (iv) include country dummy in regression model. Large ownership and institutional ownership variables are separated from foreign and government ownership due to high correlation. p-Value is in bracket and number in the upper line is the coefficient. The significance level of the coefficients are varied at 1% (***), 5%(**), and 10%(*).

ROA (Emerging)	(i)	(ii)	(iii)	(iv)
	-0.029	-0.028	0.005	0.004
Board Size	(0.044)**	(0.047)**	(0.791)	(0.849)
	-0.014	-0.014	0.006	0.006
Board Independence	(0.000)***	(0.000)***	(0.105)	(0.128)
	0.074	0.1443	0.544	0.547
CEO Duality	(0.763)	(0.572)	(0.007)***	(0.008)***
	0.122		0.345	
Large Shareholders	(0.529)		(0.045)**	
	-0.003		-0.003	
Institutional Ownership	(0.053)*		(0.044)**	
		-0.001		-0.002
Foreign Ownership		(0.517)		(0.148)
		-0.004		-0.004
Government Ownership		(0.047)**		(0.034)**
	2.814	2.745	2.298	2.418
Constant	(0.000)***	(0.000)***	$(0.000)^{***}$	(0.000)***
	-0.281	-0.257	-0.339	-0.267
y2008	(0.106)	(0.128)	(0.018)**	(0.053)*
	-0.203	-0.182	-0.264	-0.164
y2009	(0.270)	(0.317)	(0.065)*	(0.216)
	-0.046	-0.004	-0.101	0.009
y2010	(0.805)	(0.984)	(0.468)	(0.941)
Country dummy	Not included	Not included	Included	Included
Adjusted R2	0.162	0.164	0.531	0.533
Number of Observations	152	152	152	152
F-test	7.74***	8.16***	13.19***	13.33***

Notes: ***Statistically significant at 1%, **Statistically significant at 5%, *Statistically significant at 10%

To sum up the differences between the developed countries and emerging markets in terms of corporate governance's influence on bank performance, we can conclude that board size and board independence have a significant relationship in developed countries, while the other corporate governance variables have significant relationships in emerging market countries. In developed countries, board size is negatively related to Tobin's Q, while board independence has a positive relationship with ROA. In emerging markets, CEO duality and large shareholders have significant negative relationships with Tobin's Q.

By analysing the adjusted R^2 of all regression models, this research summarizes that banks' performance in developed countries are better explained by corporate governance with the market-based performance measure (Tobin's Q) rather than the accounting-based performance measure (ROA). On the contrary, the adjusted R^2 figures for emerging markets are higher using ROA than Tobin's Q, which means the accounting-based performance measure has a stronger relationship with the corporate governance mechanisms in emerging markets banking firms.

CHAPTER V : CONCLUSIONS

This study presents empirical evidence on the relationship between corporate governance mechanisms and bank performance during and after financial crisis from 2007 to 2010 and introduces the differences and similarities of this relationship between developed countries and emerging markets. In order to examine how corporate governance influences bank performance I used a market-based performance measure (Tobin's Q) and an accounting-based performance measure (ROA) as dependent variables in OLS regression models with a sample of 80 banks across 15 countries, including 8 developed countries and 7 emerging market countries. In general, the samples represent 78.11% of the industry's total assets and 77.21% of the industry's total market capitalization.

The first finding in this research has supported our Hypothesis 1, in which *banks with a smaller board size performed better during the crisis*. Compared to banks in developed countries, this research also finds that banks in emerging markets have a significantly lower average number of members in the board, while Tobin's Q and ROA have significantly higher mean values. These findings could suggest that board size has a significant influence as one of the reasons why banking firms in emerging markets have better performance during the crises. Referring to previous studies, such as Andres and Vallelado (2008) and Yermack (1996), the addition of more directors has increased the coordination problem, free-riding, and decision-making time, which leads to less efficient management; rather than the benefit of monitoring and advising. The different of board sizes between developed and emerging countries could be affected by the complexity level of the banks, where developed countries should have more complex banking systems than in emerging markets.

The second finding shows that Hypothesis 2 in which banks with more independent directors in the board will have better performance, is not supported. The findings show that there is no statistically significant relationship between board independence and bank performance. Banks in emerging markets with less independent directors have performed better compared with developed countries during the crisis. Even though the codes of good corporate governance usually include the high percentage requirement of independent directors and the study prior financial crisis 2007-2008 (Cook, Hogan, and Kieschnick (2004)) has mentioned that countries who survived in the crisis are those who have greater proportion of independent directors, the empirical evidence in this study shows that a higher proportion of independence in the board gives poor performance to the bank. A potential explanation of this result might be because more independent directors on the board took more risky investment projects prior to the financial crisis in 2007-2008. Independent directors tend to behave in the shareholders' best interest whose aim is to get higher returns through higher risk projects, while management is more risk-averse. Another potential explanation for this negative relationship is that higher levels of board independence lead to the more access to capital markets; during the crisis, the boards of directors protected banks from bankruptcy and lack of capital adequacy by raising more equity capital, which lead to a significant wealth transfer from shareholders to debt-holders and damage to the market value of the banks.

The third finding on Hypothesis 3 that *the smaller presence of CEO duality affect positively on bank performance* is that there was no significant influence between CEO duality and bank performance during the crises. The CEO duality practice in developed and emerging markets is not significantly

different either. Although US banks have combined leadership and most of other developed countries have separated leadership, these banks were still more affected and performed worse during the crises. This also happened in emerging markets where most of the Indian companies had CEO duality and other emerging countries had separated leadership, but the average bank performance in the other emerging markets was better during the crises. This implies an insignificant relationship between CEO duality and bank performance.

With regard to Hypothesis 4 that *banks that have a larger presence of block-holders, more institutional ownership and foreign ownership, and less government ownership, will have better performance,* this study supports the hypothesis in terms of large block-holders and government ownership. However, the findings show that institutional ownership was significantly negatively related to bank performance during the crisis, which is the opposite of our hypothesis, and there is no significant relationship to foreign ownership. When a large percentage of institutional shareholders owned by the bank not as block-holders, these institutions held relatively few shares, thus they have less strong incentives to monitor management and these shares were likely to be liquidated when the banks had poor performance, especially during the crisis, to save their own institutions.

The last finding related to comparative analysis was on Hypothesis 5, that *there are differences between banks in developed and emerging market countries in their respective governances; and in terms of the corporate governance relationship with bank performance*, is partially supported. The findings show that the significant different characteristics of corporate governance between these two groups come out in all variables, except CEO duality and foreign ownership. The differences between developed and emerging market countries in terms of banks' corporate governance relationship with their performance appear in all corporate governance variables. The significant relationships in developed countries appear to be board size and board independence, while the other variables have no significant influence. On the contrary, board size and board independence have no significant influence within emerging markets, while CEO duality and the ownership monitoring mechanisms, such as large shareholders, institution ownership, foreign ownership, and government ownership, are significantly related with bank performance.

This study introduces new findings from other previous corporate governance research by comparing developed countries with emerging markets. All of the corporate governance relationships with bank performance are different between these groups, which might be the cause of why some emerging countries were affected less and performed better during the crisis. The relationship might be changed when developed and emerging markets are combined and separated due to different characteristics of corporate governance being applied. Country-specific characteristics have the necessary role of determining the influence of corporate governance on bank performance, which created the poor performance of the financial institutions as the roots of the global financial crisis in 2007-2008.

This study is constrained by the availability of relevant data, especially for some banking firms from emerging markets for the period before 2006, therefore it limits the samples covering these periods to only 2006 and after. Due to limitations on sources and time, the research uses basic OLS regression models and the sample size in this research has been limited to 80 publicly listed banks which is a small fraction of total amount publicly listed banks across the 15 countries. These 80 publicly listed banks, however, represent the majority of the total assets and total market capitalization in the countries' banking industry. Out of many categories of corporate governance, in this research we focused on the

internal control and ownership monitoring mechanism, with three variables for internal control, and four variables for the ownership monitoring mechanism. Because of a small number of samples have experienced mergers and acquisitions, this study has ignored the merger and acquisition effect during the sample period. This research also disregards the possibility of different accounting standards being implemented in different countries. All the data used here are taken from reliable database resources, such as Thomson One Banker, Bloomberg, and Thomson Reuters *Datastream*, as well as the annual reports of all the banks.

The recommendations for future research have also been identified. First is to explore the most appropriate research methodology and test the violation of the regression assumptions so the objective of the topic research can be evaluated and assessed more accurately. Wider samples and larger observations may be included in the future research, which can be done in many ways, such as including more countries, a longer time-period, or adding non-bank financial firms to get another perspective. Future research may consider the merger and acquisition effect and the accounting standards that are applied in different countries. All of these recommendations aim to create a better examination to obtain more accurate results from the research.

APPENDIX

List of the Sample	
BRAZIL	CANADA
BancoBradesco SA	Bank Of Montreal
Banco Do Brasil SA	Canadian Imperial Bank Of Commerce
BCO Santander Brasil SA	Royal Bank Of Canada
ItauUnibanco Holding SA	The Bank Of Nova Scotia
CHINA	Toronto-Dominion Bank
Bank Of China Limited	FRANCE
Bank Of Communications Company Limited	BNP Paribas
China Citic Bank Corp. Limited	Credit Agricole SA
China Construction Bank Corporation	Credit Industriel Et Commercial
China Merchants Bank Company Limited	Natixis
Industrial & Commercial Bank Of China Li	SocieteGenerale
INDIA	GERMANY
Axis Bank Limited	Commerzbank AG
Bank Of Baroda	Deutsche Bank AG
Bank Of India Limited	Deutsche Postbank AG
Canara Bank	Landesbank Berlin Holding AG
Hdfc Bank Limited	Landesbank Hessen-Thuringen Giro
Icici Bank Limited	ITALY
Punjab National Bank Limited	Banca Monte DEI Paschi
State Bank Of India	BancoPopolare
INDONESIA	IntesaSanpaolo
Bank Central Asia Terbuka	Unicredit
Bank CimbNiaga Terbuka	Unione DI Banche Italian
Bank Danamon Indonesia TBK	JAPAN
Bank Mandiri Terbuka	Mitsubishi UFJ Financial Group Inc
Bank Negara Indonesia Terbuka	Mizuho Financial Group Inc
Bank Rakyat Indonesia Terbuka	Resona Holdings Inc
MEXICO	Shinkin Central Bank
GrupoFinancieroBanorte Sab De CV	Sumitomo Mitsui Financial Group
GrupoFinancieroInbursa Sab De CV	Sumitomo Mitsui Trust Holdings Inc
GrupoFinanciero Santander Sab De CV	RUSSIA
SOUTH AFRICA	JSC VTB Bank
Absa Group Limited	Rosbank
Firstrand Limited	Sberbank Of Russia Sponsored
Nedbank Group Limited	Ural-Siberian Bank
Standard Bank Group Limited	UNITED KINGDOM
TURKEY	Barclays PLC
Akbank TAS	HSBC Holdings PLC
Finansbank AS	Lloyds Banking Group PLC
TurkiyeGarantiBankasi AS	Royal Bank Of Scotland Group PLC
TurkiyeHalkBankasi AS	Standard Chartered PLC
Turkiye Is Bankasi AS	UNITED STATES
TurkiyeVakiflarBankasi Tao	Bank Of America Corp.
Yapi VE KrediBankasi AS	Bank Of New York Mellon Corp.
	Citigroup Inc
	JP Morgan Chase & Company
	PNC Financial Services Group Inc
	US Bancorp
	Wells Fargo & Company

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