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Corporate Governance, Risk Management, and Bank Performance: Does Type of Ownership Matter?

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EXECUTIVE SUMMARY

This research provides a conceptual model called Triangle Gap Model (TGM) and then tests it in an empirical study. The purpose of this research is to investigate the relationships among corporate governance, risk management, and bank performance in Indonesian banking sector. This study examines whether the type of ownership has moderating effect on these relationships, and whether ownership structure is a key determinant of corporate governance. This research utilizes both primary data and secondary data analyses. Method of analysis used for secondary data is Generalized Methods of Moments (GMM). Meanwhile, primary data utilizes bootstrap method, factor analysis, and 3-state least squares (3SLS). This study finds that the relationships between corporate governance and risk management, and between corporate governance and bank performance are sensitive to the type of bank ownership. However, ownership structure shows partial support as a key determinant of corporate governance. Foreign-owned banks have better implemented good corporate governance than have joint-venture-owned banks, state-owned banks, and private domestic-owned banks. Foreign-owned banks also incorporate significant relationship between corporate governance and risk management. Meanwhile, state-owned banks underperform the other types of bank ownership in implementing good corporate governance. This study also finds an interrelationship between risk management and bank performance. Risk management has significant effect on bank performance, and vice versa. In general, the findings for both secondary data and primary data analyses are substantiating each other. Primary data analysis supports and strengthens the findings of secondary data analysis.

Keywords: corporate governance, type of ownership, ownership structure, risk management, bank performance

CHAPTER 1
INTRODUCTION

Research Background and Issues

Financial crisis in 1997 hit Indonesia more than other Asian countries. A large number of firms have gone to bankruptcy, whilst some firms suffering from financial difficulties attempted to reschedule their debts or convert their debts into common stocks. Part of these firms is in banking sector. Indonesian government provides a huge buffer fund to bailout savings deposit and takes over temporarily of illiquid banks.

Why does the government concern about the problems of banking sector more than other sectors? There are several possible reasons for the higher degree of government oversights in the banking sector:

1. Bank depositors (particularly retail depositors) cannot effectively protect themselves because they do not have adequate information, nor are they in a position to coordinate each other.
2. Bank assets are unusually opaque, and lacking in transparency as well as liquidity.
3. Bank instability will lead to contagion effect, which would affect a class of banks or even the entire financial system and the economy.
4. Banks have a dominant position in developing economic financial systems, and are important engines of economic growth (King and Levine 1993 a, b; Levine 1997).

The lessons learnt from financial crisis are to open awareness of the government and businesses people on the important role of implementing good corporate governance in Indonesian firms, especially in banking sector. In 2000, some private sectors of business and professional associations established Forum for Corporate Governance in Indonesia (FCGI). Other parties have also attempted to conduct the implementation of good corporate governance in Indonesia.

In the end of January 2006, Central Bank announced the implementation of good corporate governance rule for general banks (Rule number 8/4/PBI/2006). Rationales of the regulation are due to coping the bank risk complexity,

improving the bank performance, obeying the rules, and enhancing internal condition of national banking. In addition, the Central Bank also announced the implementation of risk management to control their operations and risk exposure (Rule number 8/6/PBI/2006). These actions indicate that Central Bank is concerned about the importance of relationship between corporate governance, risk management, and bank performance.

Whilst the issues become a major concern in banking practices, the conceptual issues are literarily debated. Shleifer and Vishny (1997) define corporate governance as the way in which suppliers of finance to corporation ensure themselves of getting a return on their investments. Corporate governance concerns the inter-relationships between principals, agents, and other stakeholders who may have different interests in the firm. Conflict of interests between different stakeholders is potentially high in banking sector. The unusual agency problem in banking sector could not be resolved satisfactorily using conventional agency theory.

This research presents issues about relationships between corporate governance, risk management, and bank performance. Corporate governance in banking sector consists of two control mechanisms: external corporate governance and internal corporate governance. In this concept, bank owners are *external-quasi* control because they are also subject to the regulation. Hence, this research also provides a conceptual framework that explains position of type of ownership as a moderating factor of these relationships.

Ciancanelli and Gonzales (2000) argue that banking sector has different market structures which do not meet the basic assumptions of agency theory.[1] Besides unusual agency problem, bank managers and owners are subject to the regulation. As a governance force, regulation is intended to serve the public interests, particularly the interests of the consumers of the banking services. Regulator and regulation represent external corporate governance that implies

[1] Agency theory has at least three assumptions: (i) Normal or competitive markets; (ii) The nexus of contract is the principal-agent relationship between owners and managers; (iii) Optimal capital structure requires limited gearing.

market force to discipline both managers and owners in a different way than that in unregulated economic-sectors. According to the Basel Accord, risk management and minimum capital requirement in banking sector are subjects heavily concerned by regulator. However, although the regulation is concerned about governing risk management in banking sector, literatures in financial banking have no clarity to explain the relationship mechanism between risk management and regulation, and how the relationship will lead to higher bank performance.

Owners also have particular interest to control the bank risk management. Based on the assumption that owners are more concerned about return on investment of the bank (bank performance); they will attempt to moderate the effects of the external corporate governance on bank performance. This research provides a conceptual framework to analyse these relationships and conducts this issue into empirical study.

Separation of ownerships and controls of bank induces the problem of internal corporate governance. Managers (employees) who act as the agents have particular interests which may differ from those of consumers and owners of the bank. In order to reduce the agency conflict of interests between managers (agents) and owners (principals), a continuous improvement on compensation and incentive system should be provided by the bank owners. The owners also select and govern the board of directors who have high credibility and capability to serve them better. This mechanism refers to internal corporate governance. Through this mechanism, the owners expect managers to have the same perception and direction as well as owners about risk management (risk-taking behaviour) which is related to return or bank performance.

Empirical evidence on the relationship between corporate governance and performance is mixed. For examples, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) find evidence of higher firm performance in countries with better protection of minority shareholders. Klapper and Love (2003) report that better corporate governance is highly correlated with better operating performance. They also document that firm-level corporate governance provision matter happens

more in countries with weak legal environments. Black, Jang, and Kim (2003) provide empirical evidence that there is a positive correlation between corporate governance and performance, but they have no explanation about the causal relationship. Drobetz (2004) also finds that higher corporate governance rating is related to high performance.

However, the above empirical studies are more concerned about examining the differences and correlations than about causal relationships. On the other hand, Drobetz, Schillhofer, and Zimmermann (2003) explore the relationship between firm-level corporate governance and firm performance. They suggest that good corporate governance leads to higher firm valuation (performance), hence, investors are willing to pay a premium, and bad corporate governance is punished in terms of valuation discounts.

Control effectiveness of different types of bank ownerships to moderate the relationships between corporate governance, risk management, and bank performance depend on types of ownerships structure. Types of bank ownerships structure can be classified in different types based on the power of control: shareholders are widely dispersed; a dominant owner who exercises control and appoints management (concentrated); an intermediate case where large shareholders (or called a blockholder) have veto power over major management decisions (Patrick 2001). Types of ownerships can also be classified based on private-owned banks versus state-owned banks, or domestic-owned banks versus foreign-owned banks. Pinteris (2002) provides empirical finding that indicates there is a negative relationship between bank ownership concentration and bank performance.

Empirical research issues in financial banking also concerns the control effectiveness of private-owned banks versus public or state-owned banks. Cebenoyan et al. (1993) provides different evidences that there are no differences between mutual and private ownership on bank performance. Sarkar, Sarkar, and Bhaumik (1998) also provide empirical evidence that in the absence of well functioning capital markets, there may not be significant differences in the performance of private-owned firms and public-owned firms. Mester (1989) and

Mester (1993) document that public-owned banks and mutual banks[2] have slight cost and profit advantages over their private banks. While Altunbas, Evans and Molyneux (2001) also find that there is little evidence to suggest that private-owned banks are more efficient than their mutual and state-owned firm counterparts. The results are different from previous evidence provided by O'Hara (1981) and Nichols (1967), suggesting that management of mutual banks is less efficient than management of private-owned banks. On the other hand, La Porta, Lopez-de-Silanes, and Shleifer (2000) provide contradictory empirical evidence. They mention that state-owned banks are inconsistent with the optimistic "development" theories of government ownership of banks common in the 1960s. The results are consistent with the political view of government ownership of firms, including banks, according to which such government ownership politicises the resource allocation process and reduces the efficiency.

Lang and So (2002) examine the composition of ownership structures of banks in emerging markets. They observe that foreign banks have higher holdings than do domestic banks if state stakes are excluded. In terms of bank performance, ownership structure has no impacts on the bank performance. These findings suggest further study to rethink about the system of privatization of state-controlled banks. Will the foreign banks have control of domestic banking system once the state-controlled banks are privatized? While, Havrylchyk (2003) finds that foreign-owned banks are found to be more efficient than their domestic-owned bank counterparts.

Goldberg, Dages, and Kinney (2000) compare the bank performance of domestic- and foreign-owned banks in Argentina and Mexico. They find that foreign banks generally have higher loan growth rates than do domestic private-owned banks which have lower volatility of lending that contributes to lower overall volatility of credit. Additionally, in both of countries, foreign banks show notable credit growth during crisis periods. In Argentina, the loan portfolios of

[2] Mutual ownership refers to the organisation format that members (customers), rather than the shareholders, own the banks.

foreign and domestically private-owned banks are similar and lending rates analogously respond to aggregate demand fluctuations. In Mexico, foreign and domestic banks with lower levels of impaired assets have been similar to loan responsiveness and portfolios. State-owned banks (Argentina) and banks with high levels of impaired assets (Mexico) have more stagnant loan growth and weak responsiveness to market signals.

Claessen and Fan (2003) study corporate governance in Asia. They find that agency problems arise from certain ownership structures. Conventional corporate governance mechanisms (through takeovers and boards of directors) are not strong enough to relieve the agency problems in Asia. Firms use other mechanisms to reduce their agency problems (for example, employing reputable auditors), although they have only limited effectiveness. The low transparency of Asian corporations relates to these agency problems and the prevalence of connection-based transactions that motivate all owners and investors to protect rents. The rents often appear from government actions, including a large safety net provided to the financial sector. Forms of crony capitalism (i.e., the combination of weak corporate governance and government interference) are not only leading to poor performance and risky financing patterns but also conducive to macro-economic crises. Their survey suggests that corporate governance in Asia, including Indonesia, remains unresolved problems, both in conceptual and empirical matters of corporate governance in banking sector. The research also attempts to cover the unresolved problem by examining the relationship sensitivity between corporate governance and performance for domestic-owned banks versus foreign-owned banks.

Agency theory predicts that conflict between managers and shareholders would harm firm value. Agency theory argues that the separation of ownership and controls enacts conflict of interests between parties. Ownership structure, as agency theory predicts, will reduce conflict between parties when, for instance, managers have significant amount of ownership in the firm. Meanwhile, existing shareholders will benefit from reducing gap between managers' and shareholders' interests.

The dispersion of ownership structure also plays a major role in reducing agency conflict. Dispersion of ownership also plays a significant factor in implementing good corporate governance. Shleifer and Vishny (1997) argue that dispersion level of ownership will have impact on corporate governance mechanism. They argue that the effect of political cost and free riders problems with regard to level of concentration ownership will influence shareholders (with significant proportion of ownership) to control managers. Therefore, ownership structure will play a major role in corporate governance mechanism.

In portfolio context, investors concern both risk and return. They may choose a given level of risk, and then find the investment portfolio that provides the highest return. They can also choose a given level of return, and then find the investment portfolio that provides the lowest risk. Thus, it represents reciprocal relationships between risk and return on investment. Based on this concept, risk management and bank performance can be stated as endogenous constructs.

Problems Formulation and Objectives of the Research

Based on the issues discussed above, the purpose of this research is to answer (solve) research problems that can be formulated as follows:

1. Is there relationship between ownership structure and corporate governance?
2. Is there inter-relationship between risk management and bank performance?
3. Is there relationship between corporate governance and risk management?
4. Is there relationship between corporate governance and bank performance?
5. Is relationship between corporate governance and bank performance sensitive to type of bank ownership?
6. Is the relationship between corporate governance and risk management sensitive to type of bank ownership?

Research Originals

The conceptual framework proposed in this study is different from previous studies in some points of view. First of all, previous studies discussing corporate governance in Indonesian banking are more focused on concepts than empirical study. Ciancanelli and Gonzales (2000) comment that consideration of corporate governance in banks is, however, apparently easier to be said than to be done. While there is a great deal of empirical research on corporate governance,

very little of it concerns the behavior of owners and managers of banks; all of it assumes that banks conform to the concept of the firm used in agency theory. This study attempts to investigate these behaviours in empirical study on Indonesian banks.

Secondly, previous studies are more concerned about differentiation and correlation between the degree of corporate governance and bank performance. However, there is little attention about causal relationship between them. In this study, the problem is integrated with manager's interest in risk-taking behavior (risk management) using simultaneous equation models that allow this research to examine the causal relationship in higher level of analysis.

At last, the model consists of five main constructs, those are: corporate governance, risk management, bank performance, ownership structure, and type of ownership. These constructs have been discussed in previous studies both conceptually and empirically. However, only few of them concern the complex inter-relationship between the constructs. Meanwhile, in business practices, the four main constructs are inter-related in particular manners. This study develops a model focused on that problem called "Triangle Gap Model" (TGM). How TGM conceptually works will be discussed in detail in section 2.

This study uses two research methods to verify robustness of TGM. The first method uses secondary data and the second method uses primary data. Secondary data are collected from quarterly financial reports. The detail of the research method will be presented in Chapter 3. Primary data were collected from respondents (commissioners, directors, and managers) who answered questionnaires. The detail of the research method will be presented in Chapter 5.

Research Contributions

The findings of this research project would contribute to improving understanding about corporate governance practices in Indonesian banking, and in what ways the banks can implement good corporate governance that aligns with bank performance. The empirical results would also provide general indicators of corporate governance useful for both regulator and business people in making

policies and decisions as well as in rewarding or punishing the banks that have great or little intention to improve their corporate governance aligning with managers-owners risk-taking behaviour and bank performance.

Research Report Outline

There are two different research methods and two different analyses in this report. In order to improve readability of this report, the outline of this report is divided into eight chapters. The brief contents of each chapter are summarised as follows:

Chapter 1 presents research background and issues. This chapter discusses problems formulation and the objectives of the research. Furthermore, the originality and contribution of this research are also presented in this chapter.

Chapter 2 presents theoretical framework and develops a new model and hypotheses. This chapter discusses literature reviews, both previous empirical and analytical research. The important effect in implementing good corporate governance on risk management and bank performance is discussed in this chapter.

Chapter 3 presents research method for secondary data. The data are collected from quarterly financial reports. This chapter explains operational definition and measurement of regression variables. Some instrument variables are also explained in this chapter to meet the necessary and sufficient conditions of simultaneous equation model.

Chapter 4 presents research results for secondary data. This chapter reports descriptive and inferential statistical analyses for secondary data. This chapter provides information about confirming the hypotheses testing.

Chapter 5 presents research method for primary data using survey research. The data are collected from respondents who answer questionnaires. Because the sample size is relatively low, this study uses bootstrap method to increase the number of observation from 66 to 5000 observation. This chapter explains operational definition and measurement of regression variables. This chapter also provides validity and reliability tests to verify the primary data before further

analysis will be done. In addition, factor analysis is used to reduce a lot of data before running the simultaneous equation model.

Chapter 6 presents research results for primary data. This chapter reports descriptive and inferential statistical analyses for primary data. This chapter provides information about confirming the hypotheses testing as done in Chapter 4.

Chapter 7 presents results discussion. In this chapter, each hypothesis will be discussed based on the results in Chapters 4 and 6. Some rational explanations about the results both secondary data and primary data are discussed in this chapter.

Chapter 8 presents conclusions and implications. This chapter concludes all analysis results for both primary and secondary data. Research implications provide suggestions for decision makers for corporate governance policy, including owners, regulator, and managers.

At the end of this research report, we provide appendices, including questionnaires, statistical program printouts (SPSS 14.0 and EVIEWS 4.0) for regression results and factor analysis. These appendices also show statistical program printouts for validity and reliability tests.

CHAPTER 2

LITERATURES REVIEW AND RESEARCH FRAMEWORK

Agency Problem in Banking Sector

The separation of ownership and control leads to an agency problem whereby management operates the firm aligning with their own interests, not those of shareholders (Jensen and Meckling 1976). This creates opportunities for managers to spend firm resources maximising their utilities rather than owners' utilities. Agency problem not only occurs in the conflict of interests between managers and owners, but also in broader conflict areas, such as shareholders through managers versus bondholders, and major (dominant) shareholders versus minor ones.

Agency theory suggests that there are several mechanisms to reduce the agency problem in the firm. For examples, managerial incentive mechanism compensates managerial efforts to serve the owners' interests; dividend mechanism reduces managerial intention to make an overinvestment decision which will be financed by internal free cash flow; bonding mechanism reduces managerial moral hazard which potentially occurs when they are not restricted by bond contract and bankruptcy risk. Other owners' efforts to reduce agency cost of equity, potentially created by moral hazard managers, include the intention of owners to choose reputable board of directors; direct intervention by shareholders, the threat of firing, and the threat of takeover.

In banking sector, there are unusual agency problems. The conflict areas involve more than two parties simultaneously. Bank shareholders tend to invest their capital equal to or little more than required by regulator (about 12%). This condition increases shareholders' incentives to maximise their utilities by exploiting other suppliers of funds. Most suppliers of funds in banking sector are investors who have only small portions in the bank, such as individuals and

institutional depositors. They have no enough power to monitor and control the managers and owners in operating the bank. Such information is incommunicable and very costly to reveal, implying that a bank's loan portfolio is highly fungible (Bhattacharya, Boot, and Thakor 1998). In this state of nature, external market for corporate control potentially fails to discipline the managers and owners of banks.

In the market failure context, agency theory has lacked the clarity to overcome the agency problems. In this situation, government takes over the role of market to control the banks for some reasons:

1. Banking sector has pivotal position in the economy. Bank instability will lead to contagion effect, which would affect a class of banks or even the entire financial system and the economy.
2. In some countries, bank is also used as an instrument of public policy. For example, it is used to support certain industries or small and medium firms.
3. Competitive environment in banking sector is, in some countries, less demanding than in other sectors of the economy, and the government often condones anti-competitive behavior that would not be accepted in other parts of the economy (Llewellyn and Sinha 2000).

Financial economists argue that competition in the product or service market may act as a substitute for corporate governance mechanisms. Firms with inferior and expropriating management will be forced out of the market by firms possessing non-expropriating management due to competitive pressure in nature. However, the banking sector may be a lot less competitive than other business sectors, possibly due to its information-intensive (Caprio and Levine 2002).

Unusual agency problems in banking sector, the lack of competitive pressure, and the special nature of banking suggest that banks need stronger corporate governance mechanisms than do the other firms. Recent discussions in the literature of banking and finance are aimed at understanding a concept of corporate governance in banking sector. The next section briefly presents conceptual issues of corporate governance in banking sector.

Corporate Governance in Banking Sector

The narrow approach of corporate governance views the subject as the mechanism, through which shareholders are assured that managers will act in their interests. Shleifer and Vishny (1997) define corporate governance as the methods by which suppliers of finance control managers in order to ensure that their capital cannot be expropriated and that they earn a return on their investment. Corporate governance operates in a different context in banking sector compared to other economic sectors. Macey and O'Hara (2001) argue that a broader view of corporate governance should be adopted in the case of banking institutions. They also argue that because of the peculiar contractual form of banking, corporate governance mechanisms for banks should encapsulate depositors as well as shareholders.

External Corporate Governance Mechanism

In common practices, depositors rely on the government role in protecting their bank deposits from expropriating management. It might encourage economic agents to deposit their funds into banks because a substantial part of the moral hazard cost is guaranteed by the government. In other words, even if the government may explicitly provide deposit insurance, bank managers probably still have an incentive to opportunistically increase their risk-taking, however it will bear the government's expense. This moral hazard problem can be restored through the use of economic regulations such as asset restrictions, interest rate ceilings, reserve requirements, and separation of commercial banking from insurance and investment banking. The effects of these regulations limit the ability of bank managers to over-issue liabilities or divert assets into high-risk ventures. Thus, the special nature of banking requires not only a broader view of corporate governance but also government intervention through regulation and supervision in order to restrain the expropriating management behavior in banking sector. In this view, managers and owners are subject to the regulation.

In general, the literature on bank regulation emphasises the stated purpose of regulation as that of maintaining the integrity of the market system. Recent

attention is more focused on the role of government in the financial sector; government's participation as the owner of financial intermediaries, government's intervention in pricing and allocating credit, and government's role in regulating and supervising financial intermediaries. Regulation is commonly associated with the resolution of market failure in provision of the public good of financial stability. The characteristic limitations imposed are not concerned with market structure per se (for examples barriers to entry or power of market monopoly). Instead, the constraints imposed by bank regulators in many countries attempt the opposite action.

Ciancanelli and Gonzales (2000) state that in banking sector the regulation and regulator represent external corporate governance mechanism. In the conventional literature on corporate governance, the market is the only external governance force with the power to discipline the agent. The existence of regulation means there is an additional external force with the power to discipline the agent. The force is quite different from the market. This implies that the power of regulation has different effects to those produced by markets.

Bank regulation represents the existence of interests different from the private interests of the firm. As a governance force, regulation aims to serve the public interests, particularly the interests of the customers of the banking services. An agent of the public interest, the regulator, also enforces regulation itself. This agent does not have a contractual relationship either with the firm's principal or with the banking organisations because of different interests from the principal (Ciancanelli and Gonzales 2000).

Internal Corporate Governance Mechanism

Although there is implicit government's guarantee to bailout bank deposit for depositors of illiquid banks, the bailout process may take a lot of time. During the waiting time to get their money, depositors have lost time value of money and opportunities. Accordingly, they are willing to select banks which have credible commitment to depositors. Hence, it does not only rely on external corporate governance to force the management discipline, but also on the intention of bank

managers and owners to inform the market about their intentions to implement the good corporate governance. This attention more relies on internal side rather than on external side, so-called internal corporate governance. Internal corporate governance is about mechanism for the accountability, monitoring, and control of a firm's management with respect to the use of resources and risk taking (Llewellyn and Sinha 2000).

The Basel Committee on Banking Supervision (1999) relies on the responsibility of board directors and bank management on implementing good corporate governance. Nam (2004) suggests some aspects that should be concerned in the internal mechanism of corporate governance, including its independency and structure, function and activity, compensation and other relevant responsibilities of board of directors.

Corporate Governance and Bank Performance

Managers and owners of banks showing efforts and intention to implement good corporate governance will increase market credibility. Subsequently, they will collect funds at lower cost and lower risk. It can be argued that better corporate governance will lead to higher performance. Some empirical evidences support this argument. Black, Jang, and Kim (2003) investigate the relationship between corporate performance and good corporate governance in Korea. They find positive relationship between corporate performance and corporate governance.

La Porta et al. (2002) study firm's performance from 27 developed countries. They find evidence that there is higher valuation of firms in countries with better protection of minority shareholders. Parallel with this study, Klapper and Love (2003) use firm-level data from 14 emerging stock markets and document that corporate governance provisions matter more in countries with weak legal environments. They also find that better corporate governance is highly correlated with better operating performance and higher market valuation.

Corporate Governance in Indonesia

Indonesian business people also have high concerns about implementing good corporate governance in Indonesia. One of the popular groups promoting this issue is Forum for Corporate Governance in Indonesia (FCGI) established on February 8th, 2000. The forum was declared by five private sectors of businesses and professional associations, namely: the *Asosiasi Emiten Indonesia* (AEI), the *Ikatan Akuntan Indonesia-Kompartemen Akuntan Manajemen* (IAI-KAM), the Indonesian Financial Executives Association (IFEA) and the *Masyarakat Transparansi Indonesia* (MTI), supported by the Indonesian Netherlands Association (INA). After five others associations joined the FCGI, currently it has ten members. The members of the FCGI are:

1. AEI (the Association of Indonesian Public Listed Company);
2. APEI (the Association of Indonesian Securities Company);
3. FKSPI BUMN/BUMD (the Association of Internal Auditor of State-Owned Companies/Local State-Owned Companies);
4. IAI-KAM (the Indonesian Accountant Association – Management Accountant Compartment);
5. IFEA (the Indonesian Financial Executives Association);
6. IIA (the Institute of Internal Auditors);
7. INA (the Indonesian Netherlands Association);
8. MAPPI (the Indonesian Society of Appraisers);
9. MTI (the Indonesian Society for Transparency); and
10. YPIA (the Internal Auditor Education Foundation).

The main objective of this forum is to promote and to foster the implementation of principles and rules of good corporate governance amongst companies in Indonesia. The FCGI's aim is to enhance awareness and to socialise good corporate governance principles to the Indonesian business community based on international best practices, so that they can gain the benefits associated with good corporate governance. The activities of the FCGI complement the activities of the National Committee on Good Corporate Governance (NCGG) responsible for drafting the code of conducts of good corporate governance and formulating the strategies required to implement this code.

In January 2006, the Central Bank announced the rule of implementing good corporate governance (Rule number 8/4/PBI/2006). The rule consists of 15

chapters and 79 articles, regulating the independencies and transparencies of Board of Commissioners and Board of Directors, Committees (audit committee, risk monitoring committee, remuneration and nomination committee), obedience function, portfolio of fund resource, solving conflict of interests, the self-evaluation and report the implementation of good corporate governance. The rule also concerns the important role of implementing risk management as part of good corporate governance.

Relationship between Type of Bank Ownership, Bank Performance, and Risk Management

There are similarities and differences between type and structure of bank ownerships. Both type and structure of bank ownership explain the parties controlling the banks. They basically concern the major party which has more power to influence the policies and strategies of the bank. However, structure of bank ownership is more concerned about the shareholder proportion of control, whilst type of bank ownership concerns different organisational culture between the parties, such privately domestic-owned banks (private-owned banks), state-owned banks, and foreign-owned banks. The three types of bank ownership may have different cultures, attitudes, and behaviours in nature to manage the banks which lead the different level in risk-taking behaviour and bank performance.

Principal-agent theory (Jensen and Meckling 1976) is widely used to explain why closely-held firms have better economic performance than do publicly owned firms. The theoretical framework tends to suggest that public enterprises are inefficient due to the fact that there is a lack of capital market discipline. Because of the lack of market monitoring, managers attempt to pursue their own interests at the expense of enterprises' interests. Thus, agency theory views that there is a relationship between ownership structure and economic performance: the cost of monitoring makes private or closely-held firms economically more efficient than publicly owned firms.

However, private-owned firms in banking sector potentially shift agency problem from conflict of managers versus owners into conflict of managers-

owners versus other suppliers of funds (mutual-owners). Boot and Thakor (1993) argue that further issue of agency problem is the interests of bank owners may oppose those of governmental regulators, who have their own agendas, which may not necessarily coincide with maximising bank value. Shareholders may want managers to take more risk than is socially optimal, while regulators want managers to take less risk due to their concerns about the stability of financial system. Shareholders could motivate managers to take higher risk by improving incentive compensation scheme. However, from the regulators' point of view, managers' compensation schemes should be structured in order to discourage banks from becoming too risky.

In many developing economies, the issue of bank corporate governance is complicated by extensive political intervention in the operations of the banking system. This issue is related to government ownership of banks or state-owned bank and restrictions on foreign bank entry. State-owned firms, especially in banking sector, are commonly found in many developing countries (La Porta et al. 2002). This phenomenon refers to the economic history of each country, that both good and financial markets have not been well established. Currently, many private-owned firms have good serving and financial market in almost all economic sectors. Hence, it leads to the recent practical and conceptual issue, referred to as a classical question: does state-ownership of firms matter?

In banking sector, with a state-owned bank, the severity of the conflict between depositors and the managers very much depends on the credibility of the government. In economies in which there are extensive state-owned banks, the main corporate governance problem is the conflict between the government and taxpayers (as principals) and the managers and bureaucrats who control the bank. The managers of state-owned banks may have many different incentives that are not aligned with those of taxpayers. These managers may maximise their wealth through several ways, including consumption of perquisites, leisure time and staff numbers. Shleifer and Vishny (1997) argue that the managers may also seek to advance their careers in political area by serving particular interest groups. The managers are less risk averse than shareholders who have managed their portfolio

well. Therefore, managers will undertake less risk than is optimal from the taxpayers' point of view. In order to mitigate such opportunism, the managers may be given little autonomy.

State-owned banks may face public policy to serve particular economic sectors such as agricultural and small-medium enterprises that are considered important from a social point of view. However, in the absence of market-provided incentives, the managers of state-owned banks may still be able to get opportunity at the taxpayers' expense through shirking or empire building (Arun and Turner 2003). In extreme words, a state-owned enterprise is a perfect type of widely held firms. In this type of ownership, the principals (public) have no power to control the agents, and the firm represents agent without principal. Arun and Turner (2003) also argue that in terms of regulators exerting governance, the government is virtually removed as an effective monitor in the case of government-owned banks. If the government acts as both the owner and regulator, there will be a conflict of interests in its two roles. These arguments suggest that the operations of state-owned banks tend to be inefficient by nature, especially the banks which no longer serve the special missions of public policies. Thus, some strong arguments suggest that it is better for government to divest their ownership.

However, Arun and Turner (2002) also argue that the divestment policy of state-owned banks raises several corporate governance issues. If banks are completely privatised, then there must be adequate deposit insurance schemes and supervisory arrangements established in order to protect depositors and to prevent financial crash. On the other hand, if government only divests part of ownerships, there may be opportunities for the government as the dominant shareholder to expropriate minority shareholders using banks to aid fiscal problems or support certain distributional cartels. Therefore, the question in this case is whether the government can credibly commit that it will not expropriate private capital owners.

Arun and Turner (2003) also argue that an integral part of banking reforms in developing economies is the privatisation of banks. They suggest that corporate governance reforms may be a prerequisite for the successful divestiture of government ownership. Furthermore, they also suggest that the increased

competition resulting from the entrance of foreign banks may improve the corporate governance of developing-economy banks.

Whether foreign-owned bank outperforms domestic-owned bank in developing countries has been discussed both in literatures of banking and finance and in practices. Although previous studies provide mixed results, common opinions argue that some reputable foreign-owned banks outperform domestic-owned banks in developing countries due to better implementation of strong corporate governance. In addition, Unite and Sullivan (2003) examine the effect of foreign entry on the Philippine domestic banking market. They find that foreign competition compels domestic banks to be more efficient on account of increased risk, and to become less dependent on relationship-based banking practices.

Risk Management and Bank Performance

A major objective of bank management is to increase shareholders' return epitomising bank performance. The objective often comes at the cost of increasing risk. Bank faces various risks such as interest risk, market risk, credit risk, off-balance risk, technology and operational risk, foreign exchange risk, country risk, liquidity risk, and insolvency risk. The bank's motivation for risk management comes from those risks which can lead to bank underperformance.

Issues of risk management in banking sector have greater impact not only on the bank but also on the economic growth. Tai (2004) concludes that some empirical evidence indicates that the past return shocks emanating from banking sector have significant impact not only on the volatilities of foreign exchange and aggregate stock markets, but also on their prices, suggesting that bank can be a major source of contagion during the crisis.

In January 2006, the Central Bank announced the rule about the implementation of risk management. The rule consists of 11 chapters and 21 articles regulating banks to control their risk exposure by implementing risk management based on the principals of international standard. The rule also forces bank to make reports of the risk management both for subsidiaries and

consolidated companies. This action indicates that risk management is an important factor to reduce risk exposure in banking sector.

Banks which better implement the risk management may have some advantages: (i) It is in line with obedience function toward the rule; (ii) It increases their reputation and opportunity to attract more wide customers in building their portfolio of fund resources; (iii) It increases their efficiency and profitability. Cebenoyan and Strahan (2004) find evidence that banks which have advanced in risk management have greater credit availability, rather than reduced risk in the banking system. The greater credit availability leads to the opportunity to increase the productive assets and bank's profit.

Conceptual Framework and Hypotheses

Figure 1 presents a conceptual framework model of relationship between corporate governance, risk management, and bank performance. The figure shows that corporate governance influences performance in two ways; it directly influences performance, and it indirectly influences performance through forcing the risk management. The model also shows that type of bank ownership moderates the effect of corporate governance on both risk management and bank performance.

How the model works to explain and solve the research problems? What reasons behind the scheme? There is threefold essence in the model relevant to answering these questions. First, the model shows that ownership structure leads to corporate governance practices. Second, there are gaps between: corporate governance and risk management, corporate governance and bank performance, and risk management and bank performance. Third, the type of bank ownership brings differences in the level of gaps within these constructs.

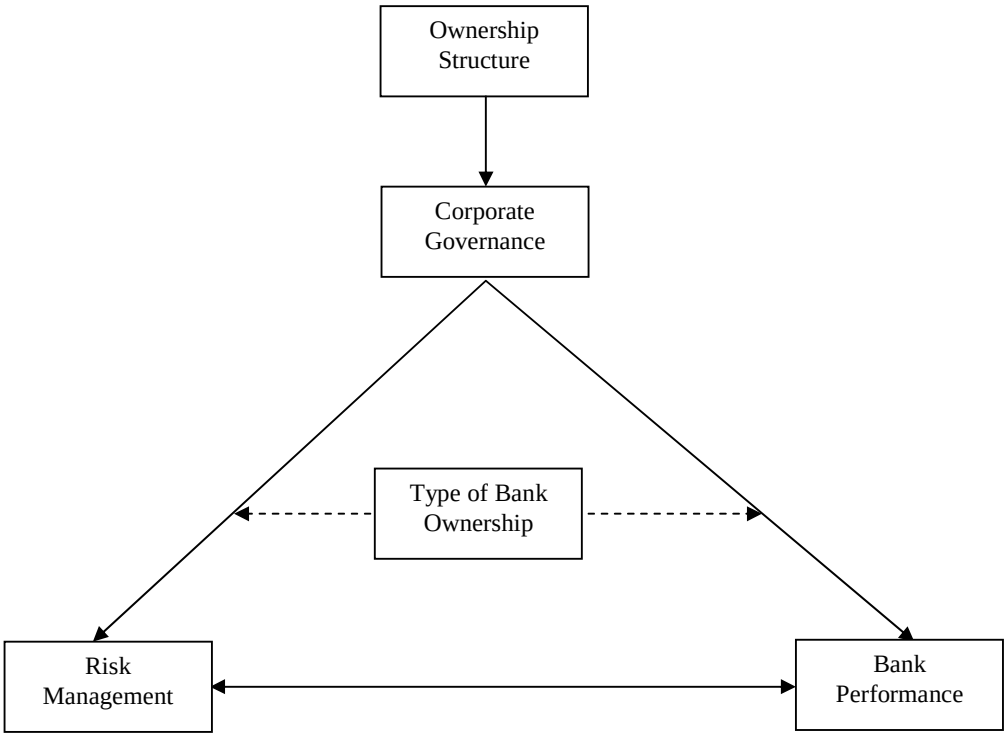

Figure 2.1 Conceptual Framework: Triangle Gap Model

The gaps in this model are defined as some inconsistent degrees of roles and interests amongst the parties. The gaps naturally appear in bank operations due to asymmetric information and agency problem. This model also assumes that: (1) Bank owners are only concerned about maximising their wealth or return on their investments in the bank;[1] (2) Business people are normally risk averse.

The Ownership Structure as a Key Determinant of Corporate Governance

Agency theory suggests that dispersion ownership plays an important role in controlling of the firm. The theory assumes that each party attempts to maximise their own wealth. Shleifer and Vishny (1997) suggest that concentration level of ownership is a significant factor attracting shareholders to control managers and to perform corporate governance mechanism. The concentrated

[1]It means that other firms or assets that belong to the bank owners have no economic relationship or link with the operations of the bank.

shareholders have more power to control the firm than do disperse shareholders. Hence, they will attempt to govern the directors to manage the firm as expected.

H_1: There is positive relationship between ownership structure (OS) and corporate governance

Interrelationship between Bank Performance and Risk Management

Both bank performance and risk management are dependent on implementing good corporate governance; hence, the two constructs are interrelated by nature. Interrelationship between the two represents the risk and return trade-off. When banks manage their risk better, they will get advantage to increase their performance (return). Better risk management indicates that banks operate their activities at lower relative risk and at lower conflict of interests between parties. These advantages of implementing better risk management lead to better banks performance. Better bank performance increases their reputation and image from public or market point of view. The banks will get lower cost of risky capital and other sources of funds. The banks also get more opportunities to increase the productive assets, leading to higher bank profitability (Cebenoyan and Strahan 2004). Hypothesis 2 can be stated as follows:

H_2: There is negative inter-relationship between risk management and bank performance.

Relationship between Corporate Governance and Risk Management

Banks as interest intermediaries are also useful to explain the relationship between corporate governance and risk management. The interested parties are not only concerned about earning better return on their investment but are also concerned over how the bank's risk exposure is distributed to them. Thus, better implementing good corporate governance is not only concerned about better expected return but is also concerned about better managing the risk. Risk management is determined by mechanisms of corporate governance in banking sector through different points of view. Markets have no adequate power to

control the operations of banks. Hence, it needs government intervention to overcome the market failure. In this situation, the main role of regulator and regulation is to serve the public interest by controlling and monitoring the operations of bank in order to restrain potentially expropriating management behaviour. Specifically, regulator and regulation, as external corporate governance, control managerial behavior in making decisions relevant to improving risk management. Corporate governance also offers some fair incentives, compensation, and career plans for the managers that reduce the expropriating managerial behaviour. Thus, hypothesis 3 can be stated as follows:

H_3: Better corporate governance will lead to better risk management.

Relationship between Corporate Governance and Bank Performance

The main role of bank managers is to serve shareholders' interest, which is to maximise return on shareholders investment (bank performance). The role of bank managers, as representing bank owners' interest, is to press the bank to take risk higher than is socially expected, related to higher shareholders' required rate of return. Besides the roles, managers, as agents, may have different interests from their principals (shareholders). Managers may spend bank assets beyond the optimal size in order to increase incentives and compensation due to increasing size (Jensen 1986; Murphy 1985). In this view, they annex not only shareholders' assets but also public assets in the bank. They will restrain their expropriating behaviour if the level of bankruptcy risk arises until up to beyond their control. Although managers may have less risk preference than shareholders expected, managers' risk preference behavior may be less relevant to both the behavior of shareholders and public, and then it will be less relevant to bank performance.[2]

Agency theory suggests the firms to involve managers as insider ownership in order to align their interests. This mechanism shifts the conflict of

[2] Managers are tempted to build asset portfolio that serves their interest rather than shareholders' interest (bank performance). This behaviour renders actual bank performance lower than expected due to transferred wealth from shareholders to managers. Jensen and Meckling (1976) suggest that the gap of performance represents residual losses born to shareholder's expenses.

interests toward owners/managers and public or depositors. Regulator protects the public interest by issuing rules to force owners and managers of the bank to be obedient toward the rules. This situation leads each party toward "prisoners' dilemma". Each prisoner attempts to bear witness letting fall the others. Thus, they suffer more from harsh punishment.

Agency mechanism could not solve the multi-conflict sufficiently. It needs awareness of each party to change their perspective to concern the other party's interests as a constraint to their objectives and interests. In this perspective, they should focus on optimum result rather than maximum result due to the constraints. All parties (stakeholders) expect the bank to serve their interests for long run rather than for short run. The banks should be viewed not only as financial intermediaries but also as interest intermediaries. Banks who serve better interest indicate that they implement better good corporate governance. Because the interest of owners is to earn better return on their investment (equity), they will attempt to implement better good corporate governance. Based on this argument, the hypothesis 4 can be stated as follows:

H_4: Better corporate governance will lead to better bank performance

The Sensitivity of Triangle Gap Model Relationships on Type of Bank Ownerships

The three hypotheses represent the test of a form of necessary condition whether bank implements good corporate governance. However, confirming the first hypothesis is not sufficient to conclude that firms implement good corporate governance. It requires further explanation and investigation to meet a sufficient condition to conclude that corporate governance is able to converge the roles and interests among parties.

Managers and owners of bank who show efforts and intention to implement good corporate governance will increase their credibility in the market. Subsequently, the soundness of bank increases investor conviction to invest or deposit their funds into the bank. Getting the long-term investor's conviction is

very important aspect in banking sector. Banks have fiduciary relationship with their customers, which is generally not the case in relationship between other firms and their customers. The nature of business in banking sector creates additional principal-agent relationships. Furthermore, asymmetric information and fragility in banking business increase the investor's awareness to select the sound banks rather than banks offering higher return. Thus, sound banks will easily collect funds at the lower cost and lower risk.

Bank's owners play an important role in promoting their banks to adopt and implement good corporate governance. With regard to the general assumption of separation between ownership and control, owners are assumed not to be able to directly determine the operation management of bank. However, they attempt to control and determine managers in making a risk-taking decision in relation with their return on investment (bank performance). The owner's fashion in controlling and determining manager's behaviour in order to align with owner's interest is through moderating the effect of corporate governance on risk management and bank performance.

Agency theory suggests that conflict of interests can be reduced if owners have enough power to control the operations of the bank. Power of owners depends on their shares proportion. Higher power of control commonly appears in privately or closely owned banks compared to widely owned banks. In many developing countries, many state-owned banks commonly exist. In agency views, state-owned bank represents perfect type of widely owned bank. The principals (public) have no power to control the agents. Other types of ownerships commonly found in developing countries are foreign-owned banks and joint-venture-owned banks. Previous studies find that foreign-owned banks outperform domestic-owned banks in developing countries (Goldberg, Dages, and Kinney 2000; and Havrylchyk 2003). The results suggest that reputable foreign-owned banks may be able to implement good corporate governance better than do domestic-owned banks.

In Indonesian case, the type of ownerships can be classified into three major groups: private domestic-owned banks, state-owned banks, and foreign-

owned banks. Private domestic-owned banks consist of listed and non-listed banks. Both listed and non-listed banks have quite similarities that the major proportion of ownerships is concentrated into small numbers of controlling shareholders. State-owned banks represent perfectly dispersed ownership. The principals (citizen) have less power to control the banks, thus controlling ownership of the banks fully come from the agents. Foreign-owned banks (excluded joint-venture-owned banks) are controlled by more dispersed ownership than domestic ownership. DeAngelo and DeAngelo (1985), and Zingales (1994) suggest that major controlling shareholders lead the owners to expropriating the assets of banks to maximise their interests. Thus, foreign-owned banks may implement good corporate governance better than may domestic-owned banks.

Theoretically, major controlling shareholders maximise their interests by expropriating operating assets of banks. Hence, domestic-owned banks may have potential problem in implementing good corporate governance. However, state-owned banks are subject to multi-agents who have conflict of interests without any principals who have sufficient power to control the banks. Three are three perspectives that can explain the relationship between the role of state-owned banks and their performance. Political perspective suggests that state-owned companies may be intervened by the regime to increase their popularity and political voting (Shapiro and Willig 1990; Shleifer and Vishny 1994). Agency perspective suggests that state-owned banks have no principals who have enough power to control the banks. Social welfare perspective suggests that state-owned companies serve special mission to support the government policies. It seems that state-owned banks address many problems to implement good corporate governance more than do domestic owned banks. It supports the argument that state-owned banks underperform domestic-owned banks (Bonin et al. 2003; Cornett, Guo, Khaksari, and Tehranian 2000).

Furthermore, foreign-owned banks have different characteristics from domestic-owned banks due to different cultures, rules, and regulations in the original countries. The foreign-owned banks may have long-time experience in legal enforcement and banking supervision that lead their attitudes and behaviours

to implementing better practices in good corporate governance. They are also supported by excellent advantages in technology, services, innovation, and their expertise. The discussion indicates that different types of ownership may have different intentions, abilities, and powers in implementing good corporate governance. Foreign-owned banks implement good corporate governance better than do domestic-owned banks and state-owned banks. Thus, hypotheses 5 and 6 can be stated as follows:

H_{5a}: Relationship between corporate governance and risk management is more sensitive for foreign-owned banks than for private domestic-owned banks.

H_{5b}: Relationship between corporate governance and risk management is more sensitive for private domestic-owned banks than for state-owned banks.

H_{6a}: Relationship between corporate governance and bank performance is more sensitive for foreign-owned banks than for private domestic-owned banks.

H_{6b}: Relationship between corporate governance and bank performance is more sensitive for private domestic-owned banks than for state-owned banks.

CHAPTER 3

RESEARCH METHOD
(Secondary Data)

Data and Samples

This research uses secondary data. The data are collected from Indonesian Banking Directory and quarterly banks' financial statements for the period of analysis 1999-2004. This research employs 51 banks that geographically operate in Indonesia. The sample consists of 25 private domestic-owned banks, four state-owned banks, 13 joint-venture-owned banks, and nine foreign-owned banks.

Operational Definition and Measurement of Variables

This study concerns three constructs: corporate governance, risk management, and bank performance. This section attempts to derive the three construct into specific variables that can be defined and measured operationally. This study employs some relevant variables to proxy each construct.

Proxy Variables for Corporate Governance

Corporate governance (CG) consists of external corporate governance and internal corporate governance that serve public's interest, employee's interest, and owner's interest. External corporate governance is defined as a mechanism, which places the government responsibility to control the operations of bank through prevailing bank regulations. Bank Indonesia provides guideline to evaluate bank's health. Bank's health comprises some financial ratios.

During the period of 1997-2001, Indonesian banking sector suffered from financial performance deterioration due to severe financial crisis in South-East Asia. Central Bank has then been attempting to alleviate the deterioration by classifying the banks into three categories: A, B, and C categories. Banks that had Capital Adequacy Ratio (CAR) of less than -25% are classified into C category. In

1999, the Central Bank closed the operations of 38 banks which have C category. Banks, which have CAR between -25% and 4%, are classified into B category. Eventually, banks that have CAR of more than 4% are classified into A category. Predicated upon this classification, this study uses CAR as the main proxy for corporate governance.

Capital adequacy ratio (CAR) is capital divided by risk-weighted average assets. Capital included in the CAR comprises main capital and secondary capital. Central Bank determines that banks should reserve minimum level of CAR at least 8%. The CAR number represents the degree of bank's obedient function toward the rules, which serves and protects the public interest. Larger CAR number represents higher banks' sensitivity toward public interest. Konishi and Yasuda (2004) find that the implementation of the capital adequacy requirement reduces risk taking of commercial banks. Thus, this ratio represents a good proxy for implementing good corporate governance mechanism.

This study also considers some financial ratio, which related to the CAR. Supriyatna (2006) develops model to get composit value of corporate governance based on the bank category. He uses six exogenous variables are also relevant to assess corporate governance. This study adopts these variables. These variables represent other capital or asset ratios such as:

1. Capital Ratio (CR):

$$CR = \frac{LLP + Equity}{Total\ Loan}$$

2. Cash Claim on Central Bank (CCC):

$$CCC = \frac{Central\ Bank\ Account}{Total\ Deposits}$$

3. Secondary Reserve Ratio (SRR):

$$SRR = \frac{Marketable\ Securities}{Total\ Deposits}$$

4. Loan to deposits ratio (LDR). Loan is represented by total loan in the balance sheet, whilst the deposits include demand deposits, time deposits, certificate of deposits, savings, issued securities, prime capital, loan capital, and borrowing.

This ratio shows the proportion of public contribution as a source of capital to finance the banks' loans. Smaller LDR number indicates that public provides smaller proportion to support the banks' loans. In addition, Central Bank determines that banks concern the level of LDR to be lower than 85%. Smaller LDR number suggests that banks attempt to maintain obedient function toward the rules, which serves and protects public interest. Hence, the ratio represents a good proxy for external corporate governance mechanism:

$$LDR = \frac{Total\ Loan}{Total\ Deposits}$$

5. Loan Loss Provisioning (LLP):

$$LLP = \frac{Allowance\ for\ Losses}{Total\ Loan}$$

6. Fixed Assets and Inventories to Capital (FAI):

$$FAI = \frac{Fixed\ Asset\ and\ Inventory}{Capital}$$

Proxy Variables for Risk Management

Risk management represents risk-taking behaviour of managers. All interested parties concern how banks manage their risk carefully. This study uses some measurements of risk management, which are value at risk (VAR) as endogenous variable, and non performing loan (NPL), and business risk (BR) as exogenous variables.

1. Value at risk (VAR) is a ratio of value at risk of individual bank to mean cross section value at risk of banks (based on all samples). It is represented by 5% quarterly profit and loss measure. Jorion (2001) defines that VAR summarises the worst loss over a target horizon with a given level of confidence. More formally, VAR describes the quintile of the projected distribution of gains and losses over the target horizon. Since α is the selected confidence level, VAR corresponds to the $1 - \alpha$ lower-tail levels. This study uses 95 percent confidence level, thus VAR should exceed 5 percent of the total number of observations in the distribution. VAR can be estimated as follows:

i. Ascend nine quarterly data of profits or losses of each bank at the last two years. For observation at first quarter of 2001, data used in this study are quarterly data from the first quarter of 1999 through the first quarter of 2001. For observation at second quarter of 2001 data used in this study are quarterly data from the second quarter of 1999 through the second quarter of 2001. Thus, the values of profits or losses are used for overlapping data.

ii. Calculate arithmetic mean profits or losses for each nine quarterlies, average net profit (ANP).

iii. Calculate standard deviation of profits or losses for each nine quarterlies σ_{NP}.

iv. Using 95% confidence level of interval ($2\sigma_{NP}$), calculate absolute number of value at risk (VAR_{abs}) as follows:

$$VAR_{abs} = ANP - 2\sigma_{NP}.$$

v. In order to eliminate size-effect bias of absolute number of VAR, the VAR will be deflated by mean cross section VAR of all banks (based on all samples). Those VARs represent risk sharing in banking sector. In this study, all mean cross section VARs have negative values (see Table 3.1). The VAR used in the models is:

$$VAR = \frac{VAR_{abs} \text{ for individual bank}}{\text{Mean Cross Section VAR based on all samples}}$$

Higher VAR suggests that banks address a bigger problem in risk exposure. Thus, the bank should manage the risk carefully. Table 3.1 shows quarterly VAR from 2002 until 2004.

Table 3.1. Mean VAR based on Quarterly Data

Year	Quarter	Mean VAR (IDR billion)
2002	1	-713.82
	2	-1901.28
	3	-1282.43
	4	-2612.30
2003	1	-183.01
	2	-259.26
	3	-169.11
	4	-133.04
2004	1	-49.90
	2	-60.01
	3	-282.00
	4	-206.85

2. Non-performing loan ratio (NPL) is a ratio of non-performing loan to total loans. This ratio also represents managerial risk-taking behaviour relative to all organisation resources. Higher NPL indicates that banks take more risk in their operations and investment. This behavior tends to expropriate the public interest. In order to protect the public interest and to maintain the stability of banking systems, Central Bank determines that banks should maintain their NPL less than 5%. Hence, this ratio is also a relevant proxy for both risk management and external good corporate governance.
3. Business risk (BR) can be represented by standard deviation of return on asset using nine overlapping periods on quarterly basis. For observation at the first quarter of 2001, data used in this study are quarterly data from the first quarter of 1999 through the first quarter of 2001. For observation at the second quarter of 2001 data used in this study are quarterly data from the second quarter of 1999 through the second quarter of 2001. Thus, ROA is used for overlapping data. The risk represents unsystematic risk that arises due to the operations of individual bank. This measure is also used by Cebenoyan and Strahan (2004) as a proxy for risk management.

Proxy Variable for Bank Performance

Bank performance represents the objective of shareholder's interest. This study employs a single proxy for bank performance relevant to return on shareholder's investment, called return on equity (ROE). This study also employs

net profit margin (NPM) as an instrument variable in the bank performance equation. These variable equations can be calculated as follows:

1. Return on Equity (ROE):

$$ROE = \frac{Earnings}{Common\ Equity}$$

2. Net Profit Margin (NPM):

$$NPM = \frac{Net\ Income}{Operating\ Income}$$

Ownership Structure and Type of Bank Ownership

Ownership structure (OWN) refers to the dispersion of ownership. Disperse ownership may have less power to control the banks while the concentrated ownership may have stronger power to control the banks. Accordingly, higher proportion percentage of the majority indicates higher power of the owners to control the bank. In this research, the measurement of ownership structure is based on the highest proportion percentage of single ownership (individual or institutional ownership).

Ownership Structure (OWN) also plays an important role as a key determinant of corporate governance. This variable represents controlling shareholders who govern the policy of the firm in implementing good corporate governance.

Types of bank ownership consist of foreign-owned banks, joint venture-owned banks, private domestic-owned banks, and state-owned banks. This study uses three dummy variables to identify the four different types of bank ownership. Table 3.2 shows the detail of these dummy variables and the number of observation range.

Table 3.2. Dummy Variables of Type of Bank Ownership

Dummy Variable	Type of Bank Ownership	Observation
	Foreign Owned Bank	96
D1	1 = Private Domestic Owned Bank 0 = Others	281
D2	1 = Joint Venture Owned Bank 0 = Others	129
D3	1 = State Owned Bank 0 = Others	44
		550

Regression Model

This study uses simultaneous equation model. The coefficient parameters will be estimated using generalised method of moment (GMM). This technique is useful to eliminate the econometric assumption problem. Since endogenous variables for corporate governance and risk management have been chosen, the simultaneous equation model can be performed as follows:

$$CAR = \alpha_{10} + \beta_{11}CR + \beta_{12}CCC + \beta_{13}SRR + \beta_{14}LDR + \beta_{14}LLP + \beta_{15}FAI + \beta_{16}OWN + \varepsilon_1$$

$$VAR = \alpha_{20} + \beta_{21}ROE + \beta_{22}NPL + \beta_{23}BR + \beta_{24}CAR + \beta_{25}D_1*CAR + \beta_{26}D_2*CAR + \beta_{27}D_3*CAR + \beta_{28}D_1 + \beta_{29}D_2 + \beta_{30}D_3 + \varepsilon_2$$

$$ROE = \alpha_{30} + \beta_{31}VAR + \beta_{32}NPM + \beta_{33}D_3 + \beta_{34}CAR + \beta_{35}D_1*CAR + \beta_{36}D_2*CAR + \beta_{37}D_3*CAR + \beta_{38}D_1 + \beta_{39}D_2 + \beta_{310}D_3 + + \beta_{311}CAR^2 + \beta_{312}D_1*CAR^2 + \beta_{313}D_2*CAR^2 + \beta_{314}D_3*CAR^2 + \varepsilon_3$$

Where;

CR	= Capital Ratio	NPM	= Net profit margin
CCC	= Cash Claim on Central Bank	D_1	= 1 for private domestic-owned bank, and 0 for others
SRR	= Secondary Reserve Ratio		
LDR	= Loan to Deposits Ratio	D_2	= 1 for joint venture bank, and 0 for others
LLP	= Loan Loss Provisioning		
FAI	= Fixed Asset and Inventory	D_3	= 1 for state-owned bank, and 0 for others
OWN	= Ownership Structure		
CAR	= Capital Adequacy Ratio	α	= Intercept
VAR	= Value at Risk	β	= Coefficient of parameters
NPL	= Non-performing loan ratio	ε	= Residual error
BR	= Business Risk		
ROE	= Return on Equity		

CHAPTER 4

RESULTS
(Secondary Data)

This chapter discusses descriptive statistics and regression results based on secondary data. The descriptive statistics report the means and standard deviations of regression variables. The regression results report the simultaneous equation model using a general method of moment technique of the three equations of corporate governance: risk management, and bank performance. This section also shows the results of hypotheses tested.

Summary Statistics

Table 4.1 reports samples' mean and standard deviation of regression variables. Panel A in the table exhibits instrument variables of corporate governance. The table shows that joint-venture-owned banks have the highest CAR, foreign-owned banks in the second order, and state-owned banks have the lowest CAR. All banks have mean CAR more than minimum requirement of 8% determined by central bank. Joint-venture-owned banks also have the highest value of capital ratio (CR) and cash claim on central bank account (CCC). However, joint-venture-owned banks have mean LDR of 109%, higher than maximum level of 85% determined by Central Bank. Foreign-owned banks have mean LDR of 60%, higher than domestic-owned banks' LDR. Foreign-owned banks have the highest number of four proxies for corporate governance. Those are secondary reserved ratio (SRR), loan losses provisioning (LLP), fixed asset and inventory capital (FAI), and ownership structure.

Panel B presents statistic descriptive of instrument variables of risk management. The panel shows that state-owned banks have the highest VAR, while joint-venture-owned banks have the lowest VAR. Foreign owned-banks

have the highest NPL, and private owned-banks suffer the lowest NPL. In addition, joint-venture-owned banks have the highest business risk (BR).

Panel C presents statistic descriptive of bank performance based on ROE and NPM. NPM is included in the system of simultaneous equation to support the fitted bank performance model. The table shows that foreign-owned banks have the highest bank performance than the other types of bank ownership, while private-owned banks have the worst bank performance.

Table 4.1 Descriptive Statistics of Regression Variables

The table presents sample means and standard deviations (SD) of regression variables. Variables used in this study are classified into three constructs. Those are represented by three endogenous variables: capital adequacy ratio (CAR), proxy for corporate governance – CG), value at risk (VAR, proxy for risk management – RM), and return on equity (ROE, proxy for bank performance – BP). Exogenous variables are: capital ratio (CR), cash claim on central bank account (CCC), secondary reserved ratio (SRR), loan to deposit ratio (LDR), loan losses provisioning (LLP), Fixed asset and inventory capital (FAI), Ownership structure (OWN), nonperforming loan (NPL), and Business risk (BR). The descriptive statistics are based on panel data of quarterly financial reports 2002-2004.

Variable	Aggregate Sample (N=550)		Foreign (N=96)		Joint Venture (N =129)		Private Domestic (N=281)		State (N=44)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Panel A: Proxies for Corporate Governance										
CAR	0.29	0.29	0.31	0.26	0.49	0.45	0.21	0.14	0.19	0.06
CR	0.22	0.32	0.11	0.13	0.46	0.47	0.16	0.24	0.09	0.04
CCC	0.36	0.47	0.20	0.12	0.55	0.71	0.36	0.41	0.12	0.04
SRR	0.20	0.25	0.41	0.33	0.22	0.21	0.14	0.22	0.06	0.04
LDR	0.65	0.44	0.60	0.45	1.09	0.54	0.50	0.22	0.46	0.12
LLP	0.03	0.11	0.06	0.20	0.03	0.12	0.01	0.04	0.02	0.03
FAI	0.35	0.53	0.46	0.67	0.06	0.04	0.42	0.58	0.46	0.21
OWN	0.72	0.27	0.98	0.11	0.84	0.21	0.56	0.22	0.88	0.17
Panel B: Proxies for Risk Management										
VAR	0.87	3.76	0.68	2.79	0.05	0.32	0.66	3.36	5.02	8.31
NPL	0.10	0.15	0.20	0.21	0.15	0.18	0.05	0.09	0.08	0.05
BR	0.02	0.03	0.02	0.01	0.04	0.05	0.01	0.02	0.02	0.02
Panel C: Proxies for Bank Performance										
ROE	0.19	0.75	0.77	1.51	0.06	0.15	0.05	0.41	0.17	0.08
NPM	0.17	0.24	0.27	0.18	0.27	0.40	0.10	0.13	0.15	0.07

In general, the descriptive statistics indicate that foreign-owned banks attempt to be more concerned about implementing corporate governance than

other bank's owners do. Foreign-owned banks also concern value at risk (VAR) rather than the other types of risk. Indeed, they have ability to control their risk management to be in line with bank performance. The findings suggest that foreign-owned banks have better ability in integrating the corporate governance, risk management, and bank performance. Despite their performance, state-owned bank have higher risk management than the other types of bank ownership do.

The next section of this report provides further investigation of interrelationship between corporate governance, risk management, and bank performance. The analysis focuses on the sensitivity of these interrelationships on different types of bank ownership.

Regression Results

Table 4.2 presents simultaneous regression results for triangle gap model of corporate governance. The table provides three equations analysis based on four classified samples, those are foreign-owned banks, joint-venture-owned banks (D1), private domestic-owned banks (D2), and state-owned banks (D3). The first equation uses CAR (capital adequacy ratio) as the endogenous variable. This variable represents the main proxy for corporate governance (CG), the second equation uses VAR (value at risk) as endogenous variable. This variable represents the main proxy for risk management (RM), and the third equation uses ROE (return on equity) as the endogenous variable. This variable represents the main proxy for bank performance (BP).

The first equation estimates seven coefficients of parameters of corporate governance variables. Six variables represent capital and asset ratios as instrument variables, and one variable represents the power of owners to control the bank in maintaining their corporate governance. The table shows that loan to deposit ratio (LDR) and ownership structure (OWN) have negative effect on CAR, while other variables have positive effect on CAR. However, only four variables have significant effect on CAR at 1% level of alpha, those are capital ratio (CR), secondary reserved ratio (SRR), loan to deposit ratio (LDR), and loan losses provisioning (LLP). The table shows that OWN has no significant effect on CAR.

This finding does not confirm the first hypothesis (H_1), which states that ownership structure as a key determinant of corporate governance.

Table 4.2 Regression Results for Triangle Gap Model of Corporate Governance

The models are estimated by *generalized method of moment* (GMM) in a system of simultaneous equations. Three endogenous variables are capital adequacy ratio (CAR) as proxy for corporate governance), value at risk (VAR) as proxy for risk management, and return on equity (ROE) as proxy for bank performance. Exogenous variables are capital ratio (CR), cash claim on central bank account (CCC), secondary reserved ratio (SRR), loan to deposit ratio (LDR), loan losses provisioning (LLP), Fixed asset and inventory capital (FAI), Ownership structure (OWN), nonperforming loan (NPL), and Business risk (BR). Types of bank ownership are represented by three dummy variables; D1=1 for joint-venture owned-banks, and 0 for other, D2=1 for private domestic owned banks and 0 for other, D3=1 for state owned banks and 0 for other. The regression analyses are based on panel data of quarterly financial report 2002-2004.

Variable	Endogenous Variable								
	CAR			VAR			ROE		
	Coef.	t-value		Coef.	t-value		Coef.	t-value	
Constant	0.132	8.167	***	1.942	3.294	***	2.049	2.866	***
CR	0.657	13.385	***						
CCC	0.003	0.087							
SRR	0.220	6.554	***						
LDR	-0.085	-6.373	***						
LLP	0.833	7.916	***						
FAI	0.003	0.531							
OWN	-0.009	-0.610							
ROE				-0.719	-3.994	***			
NPL				2.149	4.655	***			
BR				22.402	6.018	***			
VAR							-0.061	-3.092	***
NPM							0.758	5.543	***
CAR				-5.569	-3.667	***	-9.929	-2.459	**
CAR*D1				3.839	2.656	***	9.885	2.463	**
CAR*D2				4.892	3.087	***	10.515	2.606	***
CAR*D3				24.656	1.456		2.165	0.277	
D1				-2.245	-3.974	***	-2.145	-2.983	***
D2				-1.879	-3.089	***	-2.102	-2.950	***
D3				-0.950	-0.341		-1.057	-1.179	
CAR^2							7.169	2.070	**
CAR^2*D1							-7.250	-2.098	**
CAR^2*D2							-8.216	-2.377	**
CAR^2*D3							14.925	0.757	
Goodness of Fit:									
R^2	0.698			0.131			0.141		
Adj. R^2	0.694			0.115			0.121		

*, **, *** sig at 10%, 5%, 1%

The first equation provides composite index of corporate governance. In general, the results provide better estimation of coefficients of parameters and

relatively high goodness of fit with the number of R^2 of 69%. The first equation in Table 4.2 can be expressed as follows:

$$\begin{array}{lccccccc} CAR = & 0.132 & + 0.657CR & + 0.003CCC & + 0.22\ SRR & - 0.085LDR & + 0.833LLP & \\ t & (8.167) & (13.385) & (0.087) & (6.554) & (-6.373) & (7.916) & \\ & + 0.003FAI & - 0.009OWN & & & & & \\ & (0.531) & (-0.61) & & & & & \end{array}$$

The second equation estimates four coefficients of parameters of risk management variables. Two variables represent other types of risk management besides value of risk (VAR) as instrument variables: one variable is return on equity (ROE), and the other is CAR. In this regression, three dummy variables of type of bank ownership are included in the equation. The type of bank ownership moderates the effect of CAR on VAR. Dummy variables D1, D2, and D3 represent joint-venture-owned banks, private domestic-owned banks, and state-owned banks, respectively. Another type of banks ownership, foreign-owned banks, is not represented by dummy variable.

The table shows that nonperforming loan (NPL) and business risk (BR) have significant effect on VAR at 1% level of alpha. Both NPL and BR have positive effect on VAR. Furthermore, ROE has significant effect on VAR at 1% level of alpha. ROE has negative effect on VAR. This result confirms the second hypothesis (H_2), which states that there is negative inter-relationship between bank performance and risk management.

The second equation in Table 4.2 can be expressed as follows:

$$\begin{array}{lccccccc} VAR = & 1.942 & - 0.719ROE & + 2.149NPL & + 22.402BR & - 5.569CAR & + 3.839CAR*D1 & \\ t & (3.294) & (-3.994) & (4.655) & (6.018) & (-3.670) & (2.656) & \\ & + 4.892CAR*D2 & + 24.656CAR*D3 & - 2.245D1 & - 1.88D2 & - 0.95D3 & & \\ & (3.087) & (1.456) & (-3.974) & (-3.09) & (-0.341) & & \end{array}$$

The equation shows that CAR has negative effect on VAR for foreign-owned banks, joint-venture-owned-banks, and private domestic-owned-banks. However, CAR has positive effect on VAR for state-owned banks. In addition,

CAR has significant effect on VAR at 1% level of alpha for all types of ownership except for state-owned banks. These findings partially confirm the third hypothesis (H_3), which states that better corporate governance would lead to better risk management.

The table shows that the effect of CAR on VAR is sensitive to different types of bank ownership. Coefficients of parameters of CAR are -5.569, -1.730, -0.677, and 19.087 for foreign-owned banks, joint-venture-owned banks, private domestic-owned-banks, and state-owned banks, respectively.[1] The results indicate that the relationship between corporate governance and risk management is more sensitive for foreign-owned banks than for other types of bank ownership, while the state-owned banks are placed in the last order of sensitivity. The results confirm the fifth hypothesis (H_{5a} and H_{5b}), which predicts that there is particular sensitivity order of the relationship due to different types of bank ownership.

The third equation estimates four coefficients of parameters of bank performance variables. One variable represents other types of profitability besides ROE as instrument variables: one variable is VAR and two variables are CAR and CAR^2. In this regression, CAR may have nonlinear effect on ROE subject to central bank regulation. The types of bank ownership moderate the effect of CAR on ROE. Dummy variables D1, D2, and D3 represent joint-venture-owned banks, private domestic-owned banks, and state-owned banks, respectively. Another type of banks ownership, foreign-owned banks, is not represented by dummy variable.

Table 4.2 shows that net profit margin (NPM) and VAR have significant effect on ROE at 1% level of alpha. NPM has positive effect on ROE. Furthermore, VAR has negative effect on VAR. This result confirms the second hypothesis (H_2), which states that there is negative inter-relationship between bank performance and risk management.

[1] The CAR coefficient of parameter for foreign-owned banks is -5.569. The CAR coefficient of parameter for joint-venture-owned banks is -5.569+3.839. The CAR coefficient of parameter for private domestic-owned-banks is -5.569+4.892. The CAR coefficient of parameter for state-owned banks is -5.569+24.856.

The third equation in Table 4.2 can be expressed as follows:

$$
\begin{array}{lllllll}
ROE_t = & 2.049 & -0.061VAR & +0.758NPM & -9.929CAR & +9.885CAR*D1 & \\
 & (2.866) & (-3.092) & (5.543) & (-2.459) & (2.463) & \\
 & +10.515CAR*D2 & +2.165CAR*D3 & -2.15D1 & -2.1D2 & -1.06D3 & \\
 & (2.206) & (0.277) & (-2.98) & (-2.95) & (-1.18) & \\
 & +7.169CAR^2 & -7.25CAR^2*D1 & -8.216\ CAR^2*D2 & +14.925CAR^2*D3 & & \\
 & (2.07) & (-2.098) & (-2.377) & (0.757) & &
\end{array}
$$

Table 4.2 shows that the effect of CAR on ROE is sensitive to different types of bank ownership. The equation shows that CAR has negative effect on ROE for foreign-owned banks, joint-venture owned banks, and state-owned banks. However, CAR has positive effect on ROE for private domestic-owned-banks. Coefficients of parameters of CAR are -9.929, -0.044, 0.586, and -7.764 for foreign-owned banks, joint-venture-owned banks, private domestic-owned-banks, and state-owned banks, respectively.[2] In addition, CAR has significant effect on ROE for all types of ownership except for state-owned banks. The negative effect suggests that better CAR would lead to lower ROE. However, the effect CAR on ROE is not linear. This pattern may occur subject to central bank regulation. The central bank determines that banks should maintain their CAR at least 8%. The purpose of the CAR minimum requirement is to protect depositors' interest. Hence, it can be predicted that negative effect of CAR on ROE will turn to be positive when CAR exceeds the particular CAR number of which depositors perceive and believe that bank will be concerned about implementing good corporate governance. Based on this argument, the third model uses nonlinear regression for CAR variable.

The equation shows that CAR^2 has positive effect on ROE for foreign-owned banks and state-owned banks. However, CAR^2 has negative effect on ROE for joint-venture-owned banks and private domestic-owned banks. Table

[2] The CAR^2 coefficient of parameter for foreign owned-banks is -9.929. The CAR coefficient of parameter for joint-venture owned-banks is -9.929+9.885. The CAR coefficient of parameter for private-domestic owned-banks is -9.929+10.515. The CAR coefficient of parameter for state owned-banks is -9.929+2.165.

4.2 shows that the effect of CAR^2 on ROE is sensitive to different types of bank ownership. Coefficients of parameters of CAR^2 are 7.169, -0.081, -1.047, and 22.094 for foreign-owned banks, joint-venture-owned banks, private domestic-owned banks, and state-owned banks, respectively.[3] In addition, CAR^2 has significant effect on ROE at 5% level of alpha for all types of ownership except for state-owned banks. Table 4.3 summarises the coefficients of parameters of CAR and CAR^2.

Table 4.3 Summary of the Coefficients of Parameters of CAR and CAR^2 in Bank Performance Equation based on Each Type of Ownership

Variable Exogenous	Foreign-owned bank	Joint-Venture-owned bank	Private-Domestic-owned bank	State-owned banks
CAR,	-9.929**	-0.044**	0.586***	-7.764
CAR^2	7.169**	-0.081**	-1.047**	22.094

*, **, *** sig at 10%, 5%, 1%

Table 4.3 shows that nonlinear relationship between CAR and ROE occurs in all types of bank ownership except joint-venture-owned banks. However, the nonlinear patterns for foreign-owned banks and state-owned banks are different from that of private domestic-owned banks. Private domestic-owned banks have inverse pattern, which is irrelevant with nonlinear argument, while state-owned banks have insignificant nonlinear relationship pattern. Thus, the results indicate that only foreign-owned banks have nonlinear relationship pattern as theory predicts, while the other types of ownership do not show strong pattern of nonlinear relationship. These findings partially confirm the third hypothesis (H_3), which states that better corporate governance would lead to better risk management.

[3] The CAR^2 coefficient of parameter for foreign-owned banks is 7.169. The CAR^2 coefficient of parameter for joint-venture-owned banks is 7.169-7.25. The CAR^2 coefficient of parameter for private-domestic-owned banks is 7.169-8.216. The CAR^2 coefficient of parameter for state-owned banks is 7.169+14.925.

CHAPTER 5
RESEARCH METHOD
(Primary Data)

Data and Samples

This chapter presents survey research method based on primary data. The data were collected from Indonesian bankers (commissioners, directors, and managers) with cooperation with Risk Management Center Indonesia. The primary data were collected by asking respondents to fulfil a set of questionnaires sent by postal mail or e-mail. We sent 700 questionnaires through mail and direct method of delivery[1]. Direct approach method was conducted when Central Bank and Risk Management Center Indonesia held regular seminar and discussion with Indonesian bankers. The questionnaires' low return rate becomes our major problem in conducting survey research. Only 94 questionnaires were collected from such an approach. Table 5.1 shows the details of response rate and methods of delivery of survey research.

Table 5.1. Methods of Delivery and Collection Rate

700 questionnaires through direct and mail approach sent with cooperation of Risk Management Center Indonesia

	Approach		
	Mail	Direct	Total
Delivered	550	150	700
Collected	63	31	94
Response rate	11.45%	20.67%	13.43%

Bootstrap Method

We have conducted data collection activities as shown in Table 5.1. The collection rate is only 94 respondents (13.43%). The number of observation is relatively small and it leads to bias statistical test (type II error). After eliminating several questionnaires that contained missing value and unreliable answers, the final data are 66 questioners. Bootstrap is used as a method to eliminate bias type

[1] Other data collection methods such as phone or face-to-face interviews may be employed when there are quite low response rate.

II error in statistical test due to small number of observation as the result of low response rate.

Bootstrap method is a method, which allows the researcher to take a random unit sample by a replacement sample method based on the given sample size. Random unit samples are run until 5,000 units (observations). Random numbers between 1 until 66 observations are generated into 5,000 samples. This study uses computer programs to generate the random numbers.

Operational Definition and Measurement of Variables

This section attempts to derive the seven constructs into specific attributes that can be operationally defined and measured. Corporate governance consists of five constructs: shareholders' rights and responsibilities, corporate governance policies, corporate governance practices, disclosure policies and practices, and audit. Some corporate governance items of questionnaires are developed and used by Forum of Corporate Governance Indonesia (FCGI) to analyse Indonesian firm in conducting their self-assessment on corporate governance. These items are also validated and in line with good corporate governance rules for general banks issued by Central Bank (Rule No. 8/4/PBI/2006). This survey uses the questionnaires with several modifications as can be seen in Appendix A1.

Bank performance comprises four items. Those items basically represent qualitative return on equity and return on asset of the banks during last three years, and compare the performance to their benchmarks. Risk management consists of three constructs: capital risk, diversification risk, and reliability risk. Subsequently, each construct consists of several items.

All items are measured by five Likert scales. The score ranges from 1 for disagree to 5 for agree with the statement. The details of each item are presented in Appendix A1.

This study uses three endogenous variables, those are: corporate governance practice, capital risk, and bank performance. Especially for bank performance, the endogenous variable is based on improvement of return on equity (ROE) in the last three years. Other constructs are treated as exogenous

variables. This study also uses two dummy variables, D1=1 for private domestic-owned bank, 0 for other types of ownership, and D2=1 for state-owned banks, 0 for other types of ownership.

Shareholders' Rights and Responsibilities (SRR)

The construct of shareholders' rights and responsibilities is based on several items viewing shareholders as the owners of the firm. As the owners, shareholders have several rights and responsibilities that should be induced and justified. Managers as people in charge of daily-basis operations have to fulfil each right of shareholders and maintain the level of obedience that will affect shareholders' value. Managers' responsibilities will induce management performance to increase the firm value (and shareholders' wealth). Table 5.2 shows 16 items representing the measurement of shareholders' rights and responsibilities. Details of questionnaires are presented in Appendix A1.

Table 5.2. Description of Shareholders' Rights and Responsibilities

SRR = Shareholders' Rights and Responsibilities with 16 questions that use Likert scale 1 (disagree) to 5 (agree).

Item	Description of Item
SRR_1	The annual meeting of shareholders after the accounting year-end.
SRR_2	Notice before the annual shareholder meeting
SRR_3	Shareholders are encouraged to attend and vote during the annual shareholder meeting.
SRR_4	Shareholders are encouraged to attend and vote during the special shareholder meeting.
SRR_5	Shareholders are given right to subscribe when the board of company increases its share capital by less than 5%.
SRR_6:	Rate the way financial information is provided to all shareholders to assist investment decisions, especially in terms of:
SRR_6a	a. Highly reliable and accurate information
SRR_6b	b. Speed transmitted on time
SRR_6c	c. Clarity of presentation to show comparisons
SRR_7:	Rate the way non-financial information (e.g. Information on the Board of Directors (BoD) and Board of Commissioners (BoC)) is provided to all shareholders, especially in terms of:
SRR_7a	a. Highly reliable and accurate information
SRR_7b	b. Speed transmitted on time
SRR_7c	c. Includes important non-financial information to explain performance
SRR_8	There are adequate opportunities for shareholders to receive and review the financial reports in order to ask for questions to be put on the Agenda at the annual shareholder meeting.
SRR_9	Is there adequate time given during the annual shareholder meeting for shareholders to ask questions?

SRR_10:	The annual meeting of shareholders decides the following items:
SRR_10a	a. Appointment of BoC and BoD
SRR_10b	b. Compensation of BoD and BoC
SRR_10c	c. Appointment of external auditors

Corporate Governance Policies (CGPO)

Corporate governance policies represent the intention of banks to implement corporate governance. This study uses several items to measure the corporate governance policies. These items assign several issues regarding corporate governance policies. Table 5.3 shows 17 items that represent the measurement of corporate governance policies. Details of questionnaires are described in Appendix A1.

Table 5.3. Description of Corporate Governance Policies (CGPO)

CGPO = Corporate Governance Policies with 17 questions that use Likert scale 1 (disagree) to 5 (agree). The questions also concern ethics and ethical standard to justify governance policies.

Item	Description of Item
CGPO_1:	The company has a written code of corporate governance which covers the specification of:
CGPO_1a	a. the rights of shareholders
CGPO_1b	b. duties of the Boards
CGPO_1c	c. the rules of disclosure
CGPO_2:	The policies of the company are easily available to:
CGPO_2a	a. Regulator
CGPO_2b	b. Employees
CGPO_2c	c. Public
CGPO_3	Compliance officer's competence to ensure full compliance of the company with existing laws and regulations
CGPO_4	The Board of Commissioners, to the extent permissible under the law, is specifically made responsible for ensuring adherence to the codes of corporate governance
CGPO_5	The company has revealed a code of conduct / ethics clearly
CGPO_6:	The company distributes the code of conduct / ethics to:
CGPO_6a	a. All employees
CGPO_6b	b. Shareholders
CGPO_7:	The code of conduct takes into account the following issues
CGPO_7a	a. Ethical standards in dealing with customers, vendors and other relevant parties
CGPO_7b	b. Company expectations of management and employees
CGPO_7c	c. The privacy of information about outsider companies
CGPO_7d	d. The privacy of information about employees
CGPO_7e	e. The importance of compliance with laws and regulations
CGPO_8	All employees required to confirm periodically by writing that they have complied with the code of conduct

Corporate Governance Practices (CGPR)

Corporate governance practices represent the actual efforts (behaviours) of banks in implementing good corporate governance. This construct consists of several attributes, focusing on the rules of board of commissioners' and directors' practices. Table 5.4 shows 41 items representing the measurement of corporate governance practices. Details of questionnaires are described in Appendix A1.

Table 5.4. Description of Corporate Governance Practices (CGPR)

CGPR = Corporate Governance Practices with 41 questions that use Likert scale 1 (disagree) to 5 (agree).

Item	Description of Item
CGPR_1	BoD has regular meetings with the BoC
CGPR_2	There are any potential conflict of interests between the company and the members of BoC and BoD.
CGPR_3:	The company has an unequivocal list of the shares owned by:
CGPR_3a	a. the members of BoD and BoC.
CGPR_3b	b. the families of the members of \BoD and BoC.
CGPR_4:	Internal written policy:
CGPR_4a	a. The company has an internal written policy regarding BoD members having concurrent positions as directors in the other companies
CGPR_4b	b. The company has an internal written policy regarding BoC members having concurrent positions as directors in the other companies
CGPR_5:	The following committees are actively functioning in the company
CGPR_5a	a. Audit committee (for supervising the external and internal auditors)
CGPR_5b	b. Compensation committee (for reviewing BoC, BoD, and management compensation).
CGPR_5c	c. Nomination committee (for selecting BoD and BoC members)
CGPR_5d	d. Compliance committee (for adherence to laws and regulations)
CGPR_5e	e. Risk management committee
CGPR_5f	f. Executive committee
CGPR_5g	g. Insurance committee
CGPR_6	The company provides formal performance appraisal review of the BoD regularly.
CGPR_7	The company provides formal performance appraisal review of the BoC regularly.
CGPR_8	The company provides an internal nomination process for the BoC (including fit-and-proper test).
CGPR_9	The company provides an internal nomination process for the BoD (including fit-and-proper test, and has at least 5-year work experience as an executive officer).
CGPR_10	All candidates are given a written appointment letter as commissioners.
CGPR_11	All candidates are given a written appointment letter as directors.
CGPR_12:	The following types of compensation are sufficient to Directors:
CGPR_12a	a. Salary independent of performance
CGPR_12b	b. Bonus dependent on performance
CGPR_12c	c. Stock options
CGPR_13:	The following types of compensation are sufficient to Commissioners:
CGPR_13a	a. Salary independent of performance

CGPR_13b	b. Bonus dependent on performance
CGPR_13c	c. Stock options
CGPR_14:	The roles, responsibilities, and delegated authorities:
CGPR_14a	a. The roles, responsibilities, and delegated authorities of the BoC are clearly mentioned in writing.
CGPR_14b	b. The roles, responsibilities, and delegated authorities of the BoD are clearly mentioned in writing.
CGPR_15	The BoD has effective meeting procedures (for example, are meeting agendas and board papers distributed in advance?)
CGPR_16	The BoC has effective meeting procedures (for example, are meeting agendas and board papers distributed in advance?)
CGPR_17:	BoD and BoC meetings:
CGPR_17a	a. The BoD meetings are minuted.
CGPR_17b	b. The BoC meetings are minuted.
CGPR_18	The BoD actively monitors the results of monthly business.
CGPR_19	The BoC gives sufficient inputs to the BoD on the matter of strategy.
CGPR_20	The BoC gives sufficient inputs to the BoD on the matter of company performance.
CGPR_21	The BoD is responsible to the vision and mission, business plan and strategic plan.
CGPR_22	The BoD identifies and selects external specialists when needed expertise is not possessed by existing directors or staff.
CGPR_23:	Introductory training for BoD, and BoC:
CGPR_23a	a. Members of BoD are given introductory training.
CGPR_23b	b. Members of BoC are given introductory training.
CGPR_24:	Ongoing training for BoD, and BoC:
CGPR_24a	a. Members of BoD are provided with the opportunity of ongoing training.
CGPR_24b	b. Members of BoC are provided with the opportunity of ongoing training.
CGPR_25	The company regularly does self-assessment of good corporate governance

Disclosure Policies and Practices (DPP)

Disclosure policies and practices try to measure certain disclosure level especially from manager's perspective. A survey by PricewaterhouseCoopers (1999)[2], in which the respondents were institutional investors in Singapore, shows that amongst a dozen countries in Asia-Pacific region, Indonesia is ranked very low in the perceived standard of disclosure and transparency[3]. According to the

[2] PricewaterhouseCoopers (in collaboration with the Singapore Exchange), 1999 Survey of Institutional Investors.

[3] Determined by a range of factors: disclosure of information in a timely manner, avoidance of selective disclosure during meeting with major investors, broad market disclosure to transnational investors, disclosure levels are above home country requirements, etc.

survey, Indonesia is also ranked very low in other areas such as accountability to shareholders, board processes and auditing and compliance. Table 5.5 shows 18 items representing the measurement of disclosure policies and practices. Detailed questionnaires are described in Appendix A1.

Table 5.5. Description of Disclosure Policies and Practices (DPP)

DPP = Disclosure Policies and Practices with 18 questions that use Likert scale 1 (disagree) to 5 (agree).

Item	Description of Item
DPP_1	Your company provides equal access to information for shareholders and investment analysts.
DPP_2	The company publishes and distributes its financial results and management analysis for analysts.
DPP_3	The company posts its financial results and management analysis on the internet.
DPP_4	How frequently does the company conduct analyst briefings?
DPP_5	The reports prepared for the annual shareholder meeting contain only basic information of sufficient details to enable investment analysts to assess the financial and non-financial performance of the corporation
DPP_6:	The annual reports clearly describe the following:
DPP_6a	a. Risk management systems
DPP_6b	b. Business goals and strategies
DPP_6c	c. Cross-shareholding and cross-debt guarantees
DPP_6d	d. Management assessment on business climate and risk
DPP_6e	e. Names of Commissioners and Directors
DPP_6f	f. Commissioners' and Directors' compensation rates
DPP_6g	g. Principal external jobs held by the Commissioners
DPP_6h	h. Corporate governance practices of the company
DPP_6i	i. Material claims and court cases
DPP_6j	j. Related parties' transactions
DPP_6k	k. Existing and potential conflict of interests
DPP_6l	l. Shareholding of Commissioners, Directors or their family members in the company or its related companies
DPP_7	The company tracks changes in its ownership structure so that any and all voting blocks are known

Audit (AUD)

Audit reveals the quality of financial reports and ensures that users of the reports can make financial decision based on reliable information. Table 5.6 shows nine items representing audit. Details of questionnaires are described in Appendix A1. Audit also forces independency. Independence is defined here as having no financial interest in the company or significant relationships with major shareholders, management, suppliers or customers

Table 5.6. Description of Audit (AUD)

AUD = Audit with 9 questions that use Likert scale 1 (disagree) to 5 (agree). Audit will reveal quality of financial reports and information reliability.

Item	Description of Item
AUD_1:	Please rate the quality of:
AUD_1a	a. Internal Audit
AUD_1b	b. Audit Committee
AUD_1c	c. External Audit
AUD_3	How many members does your Audit Committee have?
AUD_4	How many of these members are independent?
AUD_5	The Audit Committee have regular meetings
AUD_6	The Audit Committee reports regularly to the BoC
AUD_7:	The Audit Committee has regular meetings with the external auditors:
AUD_7a	a. The BoC responds to audit findings from internal auditors, external auditors, and regulator.
AUD_7b	b. The BoC responds to recommendations from internal auditors, external auditors, and regulators.

Bank Performance (BP)

Bank performance represents the financial performance improvement. Bank performance also can be seen in comparison with the related industry as benchmark. Table 5.7 shows four items that represent bank performance. BP_1 is used as an endogenous variable for 3-state least squares regression. Details of questionnaires are described in Appendix A1.

Table 5.7. Description of Bank Performance (BP)

BP = Bank Performance with 4 questions that use Likert scale 1 (disagree) to 5 (agree). The questions concern managers' judgment on return on equity and its benchmarks, and return on assets and its benchmarks.

Item	Description of Item
BP_1	The company has good improvement of return on equity in the last three years.
BP_2	The company has good improvement of return on assets in the last three years.
BP_3	The company has better return on equity than industry average (benchmark).
BP_4	The company has better return on assets than industry average (benchmark).

Risk Management

Risk management represents the bank practices in managing their risk. Risk management is divided into three constructs, which are: capital risk (CAPR), diversification risk (DIVER), and reliability risk (RELI). Table 5.8 shows 11 items representing risk management. Details of questionnaires are described in Appendix A1.

Table 5.8. Description of Risk Management

Risk Management items are divided into three categories. The categories are: CAPR = capital risk; DIVER = diversification risk; and RELI = reliability risk.

Item	Description of Item
CAPR_1	The company maintains a liquidity asset ratio higher than the minimum ratio set by the central bank (overshooting).
CAPR_2	The company provides buffer reserves target.
CAPR_3	The company prefers individual investors to institutional investors.
CAPR_4	Besides deposit insurance mandatory, the company also provides other liability guarantees.
DIVER_1	The company maintains a capital adequacy ratio higher than the minimum ratio set by the central bank.
DIVER_2	The company offers a wide variety of products as its competitive advantage.
DIVER_3	The company has domestic branch offices in mostly major cities.
DIVER_4	The company has international branch offices in most countries.
RELI_1	The company hedges their risk through derivative instruments
RELI_2	The company uses marking-to-market approach (on daily basis) for their current position in most derivative instruments
RELI_3	The company has stable net interest margin in the last three years.

Type of Bank Ownership

The type of bank ownership represents the status of majority shareholders. Survey method uses three main types of ownership: state-owned banks, domestic private-owned banks, and foreign-owned banks. This study uses two dummy variables for classifying the type of ownership: D1=1 for domestic private-owned banks and 0 for other types of ownership, D2=1 for state-owned banks and 0 for other types of ownership.

Validity and Reliability Tests

This study uses Pearson's correlation coefficient to test the items' validity. This method measures the relationship between each item and total score of all items from the particular constructs. Item that has no significant correlation at 5% level will be excluded in the regression model. Appendix A3 presents Pearson's correlation test for the relationship between each item and relevant constructs. Based on these results in Appendix A3, five items should be excluded in the regression model. Those variables are: CGPR_2, CGPR_3a, CGPR_3b, and AUD_2.

The reliability analysis procedure calculates a number of commonly used measures of scale reliability and provides information about the relationships between individual items in the scale. Intra-class correlation coefficients can be used to compute inter-rater reliability estimates. Using reliability analysis, this survey can determine the extent to which the items in the questionnaire are related to each other; we can get an overall index of the repeatability or internal consistency of the scale as a whole, and we can identify problem items that should be excluded from the scale. The reliability is actually estimated from the consistency of all items in the sum scales, the reliability coefficient computed in this manner is also referred to as the internal-consistency reliability. This survey uses Alpha (Cronbach), the model of internal consistency, based on the average inter-item correlation. Appendix A3 presents reliability test using Cronbach's Alpha. All reliability tests have Cronbach's Alphas of higher than 0.70. The results suggest that all items have higher than minimum requirement of Alpha (less than 0.60).

Technique Analysis

a. Factor Analysis: Data Reduction

There are a lot of items that should be considered in each main construct. Hence, this study uses factor analysis to reduce a lot of items, except bank performance item (BP). There are two common approaches to reducing the data in factor analysis. First, one can select a surrogate variable based on the highest factor loading for each factor. If there is a high correlation between one item and another item in a particular factor, a surrogate variable as the representation of other items is more efficient than using all items in the factor. Unfortunately, this approach may reduce the data variance when factor loadings of other items are relatively low. Second, one can use score factor based on score coefficient matrix. This approach covers all items' variances in the factors, which are weighted by score coefficient. Hence, it reduces variance losses in the data.

Based on this condition, this study uses score factor rather than surrogate variable for further analysis. Score factors of composite index are based on new

factors, which have Eigen value more than 1.00. However, especially for CGPR, this study extracts the items only for single factor as an endogenous variable of corporate governance model.

This section provides summary results of factor analysis for each construct in the questionnaires. Principal Component analysis and varimax rotation techniques are used to run the data reduction. Appendix A4 provides the details of factor analysis results for each construct.

Factor Score of Shareholders' Rights and Responsibilities (SRR). Factor analysis reduces fifteen SRR items into four factors. The correlations between each item and the factor called factor loading are presented in Table 5.9. Contribution of each factor for the total variance (72.373%) is provided by FS_SRR1, FS_SRR2, FS_SRR3, and FS_SRR4 are 21.589%, 17.061%, and 11.833%, respectively. These factors generate score factors based on score coefficient (see Appendix A4) used in the corporate governance practices (CGPR) equation as exogenous variables.

Table 5.9. Factor Loading for Shareholders' Rights and Responsibilities

Factor loading is correlation between each item and the factor. SRR = shareholders' rights and responsibilities, and FS = factor score.

Items	Factor Loading (Total Variance is 72.373%)			
	FS_SRR1	**FS_SRR2**	**FS_SRR3**	**FS_SRR4**
Variance (%)	21.890	21.589	17.061	11.833
SRR_13	0.714			
SRR_12	0.707			
SRR_10	0.701			
SRR_11	0.688			
SRR_9	0.685			
SRR_4	0.680			
SRR_5	*)			
SRR_7		0.936		
SRR_8		0.874		
SRR_6		0.694		
SRR_16		0.619		
SRR_1			0.812	
SRR_3			0.774	
SRR_2			0.772	
SRR_14				0.832
SRR_15				0.804

*) Factor loading of the item less than 0.60.

Factor Score of Corporate Governance Policies (CGPO). Factor analysis reduces seventeen CGPO items into five factors. The correlations between each item and the factor called factor loading are presented in Table 5.10. Contribution of each factor for the total variance (75.21%) is provided by FS_CGPO1, FS_CGPO2, FS_CGPO3, FS_CGPO4, and FS_CGPO5 are 26.783%, 15.452%, 12.078%, 10.5%, and 10.396%, respectively. These factors generate score factors based on score coefficient (see Appendix A4) used in the corporate governance practices (CGPR) equation as exogenous variables.

Table 5.10. Factor Loading for Corporate Governance Policies

Factor loading is correlations between each item and the factor. CGPO = corporate governance policies, and FS = factor score.

Items	Factor Loading (Total Variance is 75.21%)				
	FS_CGPO1	**FS_CGPO2**	**FS_CGPO3**	**FS_CGPO4**	**FS_CGPO5**
Variance (%)	26.783	15.452	12.078	10.500	10.396
CGPO_14	0.855				
CGPO_3	0.813				
CGPO_16	0.786				
CGPO_13	0.734				
CGPO_1	0.709				
CGPO_12	0.682				
CGPO_15	0.678				
CGPO_4		0.855			
CGPO_8		0.743			
CGPO_5		0.742			
CGPO_11			0.799		
CGPO_17			0.743		
CGPO_6			0.695		
CGPO_7				0.913	
CGPO_2				0.848	
CGPO_9					0.718
CGPO_10					0.707

Factor Score of Corporate Governance Practices (CGPR). Factor analysis reduces thirty seven CGPR items into seven factors. This construct is selected as an endogenous variable. Hence, it is only a single factor that will be held in further analysis. Table 5.11 shows eleven items contributing to the factor. Factor loading of the first factor (FS_CGPR) provides variance of 24.389%. The factor generates score factor based on score coefficient (see Appendix A4) used in the corporate governance practices (CGPR) equation as an endogenous variable.

Table 5.11. Factor Loading for Corporate Governance Practices
Factor loading is correlation between each item and the factor. CGPR = corporate governance practices, and FS = factor score.

Items	Factor Loading of FS_CGPR (Total Variance is 75.21%)
Variance (%)	24.389%
CGPR_24	0.725
CGPR_26	0.703
CGPR_17	0.701
CGPR_21	0.697
CGPR_14	0.654
CGPR_32	0.640
CGPR_41	0.636
CGPR_15	0.626
CGPR_12	0.620
CGPR_33	0.610
CGPR_16	0.607

Factor Score of Disclosure Policies and Practices (DPP). Factor analysis reduces eighteen DPP items into four factors. The factor loading of each item is presented in Table 5.12. The total variance is 65.226%.

Table 5.12. Factor Loading for Disclosure Policies and Practices
Factor loading is correlation between each item and the factor. DPP = disclosure policies and practices, and FS = factor score.

Items	Factor Loading (Total Variance is 65.226%)			
	FS_DPP1	FS_DPP2	FS_DPP3	FS_DPP4
Variance (%)	27.161	17.970	10.829	9.266
DPP_14	0.894			
DPP_16	0.860			
DPP_17	0.814			
DPP_12	0.803			
DPP_11	0.762			
DPP_15	0.702			
DPP_13	0.657			
DPP_6		0.848		
DPP_9		0.770		
DPP_7		0.648		
DPP_8		*)		
DPP_1		*)		
DPP_10			0.779	
DPP_5			0.624	
DPP_18			*)	
DPP_4				-0.730
DPP_2				0.625
DPP_3				*)

*) Factor loading of the item less than 0.60.

Contribution of each factor for the total variance (65.226%) provided by FS_DPP1, FS_DPP2, FS_DPP3, and FS_DPP4 are 27.161%, 17.97%, 10.829%, and 9.266%, respectively. These factors generate score factors based on score coefficient (see Appendix A4) used in the corporate governance practices (CGPR) equation as exogenous variables.

Factor Score of Audit (AUD). Factor analysis reduces eight AUD items into four factors. The factor loading of each item is presented in Table 5.13. Contribution of each factor to the total variance (65.226%) provided by FS_AUD1 and FS_ AUD2 are 43.222% and 24.972%, respectively. These factors generate score factors based on score coefficient (see Appendix A4) utilised in the corporate governance practices (CGPR) equation as exogenous variables.

Table 5.13. Factor Loading for Audit

Factor loading is correlation between each item and the factor. AUD is audit, and FS_AUD is factor score for Audit.

Items	Factor Loading (Total Variance is 65.226%)	
	FS_AUD1	**FS_AUD2**
Variance (%)	43.222	24.972
AUD_9	0.841	
AUD_10	0.831	
AUD_1	0.781	
AUD_3	0.711	
AUD_8	0.619	
AUD_5		0.746
AUD_6		0.728
AUD_7		0.704

Factor Score of Capital Risk (CAPR). Factor analysis reduces three capital risk items into one factor. The factor loading of each item is presented in Table 5.14.

Table 5.14. Factor Loading for Capital Risk

Factor loading is correlation between each item and the factor. CAPR is capital risk, and FS_CAPR is factor score for capital risk.

Item	Factor Loading of FS_CAPR (Total Variance is 59.815%)
CAPR_1	0.869
CAPR_2	0.894
CAPR_3	0.490

Contribution of the factor (FS_CAPR) for the total variance is 59.815%. This factor generates score factor based on score coefficient (see Appendix A4) used in the capital risk (CAPR) equation as an endogenous variable.

Factor Score of Diversification Risk (DIVER). Factor analysis reduces four diversification risk items into one factor. The factor loading of each item is presented in Table 5.15. Contribution of the factor (FS_DIVER) to the total variance is 49.757%. This factor generates score factor based on score coefficient (see Appendix A4) utilised in the capital risk (CAPR) equation as an exogenous variable.

Table 5.15. Factor Loading for Diversification Risk

Factor loading is correlation between each item and the factor. DIVER is diversification risk, and FS_DIVER is factor score for diversification risk.

Item	Factor Loading of FS_DIVER (Total Variance is 49.757%)
DIVER_2	0.805
DIVER_3	0.767
DIVER_1	0.651
DIVER_4	*)

*) Factor loading of the item less than 0.60.

Factor Score of Reliability Risk (RELI). Factor analysis reduces three reliability risk items into one factor. The factor loading of each item is presented in Table 5.16. Contribution of the factor (FS_RELI) to the total variance is 55.895%. This factor generates score factor based on score coefficient (see Appendix A4) utilised in the capital risk (CAPR) equation as an exogenous variable.

Table 5.16. Factor Loading for Reliability Risk

Factor loading is correlation between each item and the factor. RELI is reliability risk, and FS_RELI is factor score for reliability risk.

Item	Factor Loading of FS_RELI (Total Variance is 55.895%)
RELI_1	0.839
RELI_2	0.735
RELI_3	0.658

b. Simultaneous Equation Model

The next step is to analyse data using inferential statistics. This study employs simultaneous equation model using three-stage least squares (3SLS). The 3SLS can be expressed as follows:

$$FS\_CGPR = \alpha_{10} + \beta_{11}FS\_SRR1 + \beta_{12}FS\_SRR2 + \beta_{13}FS\_SRR3 + \beta_{14}FS\_SRR4 + \beta_{15}FS\_CGPO1 + \beta_{16}FS\_CGPO2 + \beta_{17}FS\_CGPO3 + \beta_{18}FS\_CGPO4 + \beta_{19}FS\_CGPO5 + \beta_{110}FS\_DPP1 + \beta_{111}FS\_DPP2 + \beta_{112}FS\_DPP3 + \beta_{113}FS\_DPP4 + \beta_{114}FS\_AUD1 + \beta_{115}FS\_AUD2 + \varepsilon_1$$

$$FS\_CAPR = \alpha_{20} + \beta_{21}FS\_CGPR + \beta_{22}BP\_1 + \beta_{23}SFDIV + \beta_{24}SFRELI + \beta_{25}(D1)(FS\_CGPR) + \beta_{26}(D2)(FS\_CGPR) + \beta_{27}D1 + \beta_{28}D2 + \varepsilon_2$$

$$BP\_1 = \alpha_{30} + \beta_{31}FS\_CGPR + \beta_{32}FS\_CAPR + \beta_{33}BP\_2 + \beta_{34}BP\_3 + \beta_{35}BP\_4 + \beta_{36}(D1)(FS\_CGPR) + \beta_{37}(D2)(FS\_CGPR) + \beta_{38}D1 + \beta_{39}D2 + \varepsilon_3$$

Where;

CGPR	= Score factor of corporate governance practices
SF_SRR1	= Score factor 1 of shareholders' rights and responsibilities.
SF_SRR2	= Score factor 2 of shareholders' rights and responsibilities.
SF_SRR3	= Score factor 3 of shareholders' rights and responsibilities.
SF_SRR4	= Score factor 4 of shareholders' rights and responsibilities.
SF_CGPO1	= Score factor 1 of corporate governance policies.
SF_CGPO2	= Score factor 2 of corporate governance policies.
SF_CGPO3	= Score factor 3 of corporate governance policies.
SF_CGPO4	= Score factor 4 of corporate governance policies.
SF_CGPO5	= Score factor 5 of corporate governance policies.
SF_DPP1	= Score factor 1 of disclosure policies and practices.
SF_DPP2	= Score factor 2 of disclosure policies and practices.
SF_DPP3	= Score factor 3 of disclosure policies and practices.
SF_DPP4	= Score factor 4 of disclosure policies and practices.
SF_AUD1	= Score factor 1 of audit.
SF_AUD2	= Score factor 2 of audit.
SF_CAPR	= Score factor of capital risk.
SF_DIVER	= Score factor of diversifiable risk.
SF_RELI	= Score factor of reliable risk.
SF_CAPR	= Score factor of capital risk.
BP_1	= Improvement of ROE in the last three years
BP_2	= Improvement of ROA in the last three years
BP_3	= Company's ROE relative to average industry's ROE
BP_4	= Company's ROA relative to average industry's ROA
D_1	= 1 for private domestic-owned bank, and 0 for others.
D_2	= 1 for state-owned bank, and 0 for others.
α	= Intercept
β	= Coefficient of parameters
ε	= Residual error

CHAPTER 6

RESULTS
(Primary Data)

This chapter discusses the descriptive statistics and regression results based on primary data. The descriptive statistics report the original items' means and standard deviations. This study excludes four items owing to unmet validity and reliability tests. The regression results report the three-stage least squares (3SLS) of the three equations of corporate governance practices: risk management, and bank performance.

Summary Statistics

Shareholders' rights and responsibilities (SRR)

Table 6.1 reports samples' means and standard deviations of items that represent shareholders' rights and responsibilities (SRR). The table shows that item scores have range from 3.5 (SRR_2) to 4.6 (SRR_4). The score ranges of the items' means for all types of ownership are quite similar.

Table 6.1 Descriptive Statistics of Shareholders' Rights and Responsibilities Items
This table presents samples' means and standard deviations (SD) of shareholders' rights and responsibilities items. Each item refers to item questionnaire number in appendix A1.

	Foreign		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
SRR_1	4.1	1.0	4.5	0.9	4.4	0.8	4.3	0.9
SRR_2	3.5	1.3	4.3	1.1	4.3	0.7	4.0	1.1
SRR_3	3.7	1.3	4.2	1.2	4.3	1.0	4.0	1.2
SRR_4	4.2	1.0	4.6	0.8	4.3	0.9	4.3	0.9
SRR_5	3.7	1.0	4.2	1.0	4.0	0.9	3.9	1.0
SRR_6a	4.1	1.1	4.4	0.6	3.9	1.0	4.0	1.0
SRR_6b	3.7	1.3	4.2	1.2	3.7	1.0	3.8	1.2
SRR_6c	3.8	1.2	4.2	0.9	3.8	0.9	3.9	1.0
SRR_7a	4.4	1.0	4.3	0.6	3.9	0.9	4.2	0.9
SRR_7b	4.2	1.1	4.2	1.0	3.8	0.9	4.0	1.0
SRR_7c	4.2	1.0	4.1	0.7	3.9	0.8	4.1	0.9
SRR_8	3.6	1.1	4.4	0.8	4.0	0.7	3.9	0.9
SRR_9	3.9	1.1	4.2	0.8	4.1	0.8	4.0	0.9
SRR_10a	4.4	0.6	4.5	0.7	4.0	1.0	4.3	0.8
SRR_10b	4.3	0.8	4.1	1.2	4.0	1.0	4.1	1.0
SRR_10c	3.7	1.2	4.1	1.0	4.0	0.9	3.9	1.1

Corporate Governance Policies (CGPO)

Table 6.2 shows the descriptive statistics of corporate governance policies. The score ranges from 3.4 (CGPO_3) to 4.7 (CGPO_7d) and CGPO_2a). These results also show the same results as those of SRR descriptive results. In general, different types of ownerships have indifferent items' mean scores of corporate governance policies.

Table 6.2 Descriptive Statistics of Corporate Governance Policies Items

This table presents samples' means and standard deviations (SD) of Corporate Governance Policies Items. Each item refers to item questionnaire number in appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
CGPO_1a	4.6	0.6	4.6	0.5	4.6	0.6	4.6	0.6
CGPO_1b	4.2	1.3	4.7	0.6	4.6	0.6	4.4	1.0
CGPO_1c	4.6	0.7	4.6	0.8	4.5	0.7	4.5	0.7
CGPO_2a	3.9	0.8	4.7	0.5	4.5	0.6	4.3	0.7
CGPO_2b	4.0	0.9	4.4	0.8	4.2	0.8	4.2	0.9
CGPO_2c	3.5	1.1	4.0	0.9	3.2	0.9	3.5	1.0
CGPO_3	3.4	1.1	4.5	0.7	4.2	0.8	4.0	1.0
CGPO_4	3.9	0.7	4.2	0.7	4.2	0.7	4.1	0.7
CGPO_5	4.3	0.7	4.4	0.8	4.3	0.7	4.3	0.7
CGPO_6a	4.8	0.6	4.6	0.8	4.6	0.7	4.7	0.7
CGPO_6b	4.6	0.8	4.0	0.9	3.6	1.1	4.1	1.0
CGPO_7a	4.8	0.5	4.6	0.7	4.5	0.5	4.6	0.5
CGPO_7b	4.7	0.6	4.6	0.6	4.3	0.5	4.5	0.6
CGPO_7c	4.5	0.7	4.5	0.8	4.2	0.9	4.4	0.8
CGPO_7d	4.7	0.7	4.2	0.8	4.2	0.9	4.4	0.8
CGPO_7e	4.5	0.7	4.7	0.6	4.5	0.6	4.6	0.7
CGPO_8	4.1	1.2	4.2	1.0	3.8	1.4	4.0	1.3

Corporate Governance Practices (CGPR)

Table 6.3 shows the descriptive statistics of corporate governance practices. The highest score is 4.8 (CGPR_1) while the lowest is 2.5 (CGPR_5g). In Chapter 5, validity test shows that CGPR_2, CGPR_3a, and CGPR_3b are not valid items. Hence, the three items are excluded from further analysis. Descriptive results for corporate governance practices show that the items' mean scores of different types of ownership are indeed different.

Table 6.3 Descriptive Statistics of Corporate Governance Practices Items

This table presents samples' means and standard deviations (SD) of Corporate Governance Practices Items. Each item refers to item questionnaire number in appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
CGPR_1	4.4	0.7	4.8	0.4	4.5	0.6	4.5	0.6
CGPR_4a	3.7	1.4	4.3	1.2	3.9	1.1	3.9	1.3
CGPR_4b	3.8	1.3	4.3	1.2	3.5	1.4	3.7	1.4
CGPR_5a	4.1	1.3	4.6	0.6	4.5	0.9	4.4	1.1
CGPR_5b	3.9	1.1	4.0	1.0	3.3	1.4	3.7	1.3
CGPR_5c	3.8	1.4	4.2	1.1	3.2	1.2	3.6	1.3
CGPR_5d	4.2	1.1	4.7	0.6	4.2	0.9	4.3	0.9
CGPR_5e	4.7	0.7	4.7	0.5	4.5	0.7	4.6	0.7
CGPR_5f	4.1	1.1	4.6	0.6	3.4	1.5	3.9	1.3
CGPR_5g	3.9	1.3	3.1	1.6	2.5	1.3	3.2	1.5
CGPR_6	4.1	1.1	4.1	0.8	3.2	1.5	3.7	1.3
CGPR_7	4.0	1.1	3.8	1.0	3.0	1.5	3.6	1.3
CGPR_8	3.6	0.8	3.8	1.0	3.0	1.4	3.4	1.2
CGPR_9	3.5	0.9	3.8	1.0	3.3	1.3	3.5	1.1
CGPR_10	3.3	1.2	4.1	0.9	3.8	1.1	3.7	1.2
CGPR_11	3.5	1.1	4.1	0.9	3.7	1.2	3.7	1.1
CGPR_12a	3.2	1.6	4.2	1.2	4.2	1.1	3.8	1.4
CGPR_12b	4.4	0.8	4.6	0.9	4.1	1.2	4.3	1.0
CGPR_12c	4.3	0.7	3.9	0.8	3.4	1.4	3.8	1.2
CGPR_13a	2.9	1.7	4.1	1.3	4.1	1.0	3.6	1.5
CGPR_13b	4.0	1.3	4.3	1.0	3.8	1.2	4.0	1.2
CGPR_13c	3.8	1.4	3.5	1.2	3.1	1.5	3.4	1.4
CGPR_14a	4.5	0.7	4.5	0.8	4.1	0.7	4.3	0.8
CGPR_14b	4.4	4.7	4.5	0.8	4.1	0.7	4.7	3.1
CGPR_15	3.5	1.0	4.3	0.8	4.2	0.7	3.9	0.9
CGPR_16	3.7	0.8	4.2	0.8	4.2	0.6	4.0	0.8
CGPR_17a	4.0	0.9	4.4	0.8	4.5	0.8	4.3	0.8
CGPR_17b	3.9	0.8	4.4	0.8	4.5	0.7	4.2	0.8
CGPR_18	4.3	0.7	4.6	0.6	4.4	0.7	4.4	0.7
CGPR_19	4.1	0.7	4.3	0.7	4.4	0.7	4.3	0.7
CGPR_20	4.3	0.6	4.2	0.7	4.6	0.6	4.4	0.6
CGPR_21	4.5	0.7	4.7	0.4	4.5	0.6	4.5	0.6
CGPR_22	4.2	1.0	4.4	0.6	4.2	0.8	4.2	0.9
CGPR_23a	3.2	1.1	4.1	0.9	3.4	1.1	3.4	1.1
CGPR_23b	3.2	1.0	3.6	1.3	3.2	1.2	3.3	1.1
CGPR_24a	3.5	1.0	4.3	0.8	4.1	0.9	3.9	1.0
CGPR_24b	3.3	1.0	3.7	1.2	3.9	0.9	3.6	1.0
CGPR_25	4.4	0.7	4.2	0.9	3.8	1.1	4.1	1.0

Disclosure Policies and Practices (DPP)

Table 6.4 shows the descriptive statistics of disclosure policies and practices. The mean items scores ranges from 3.1 (DPP_4) to 4.7 (DPP_6e). These findings are parallel to the above results, showing that the items' mean scores of different types of ownership are indifferent.

Table 6.4 Descriptive Statistics of Disclosure Policies and Practices Items

This table presents samples' means and standard deviations (SD) of Disclosure Policies and Practices Items. Each item refers to item questionnaire number in appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
DPP_1	4.3	0.8	4.7	0.6	4.0	0.8	4.2	0.8
DPP_2	4.2	0.8	4.6	0.6	4.1	0.9	4.2	0.8
DPP_3	3.3	1.1	3.9	1.2	4.1	0.8	3.7	1.1
DPP_4	3.1	0.8	3.5	1.2	3.6	1.1	3.4	1.0
DPP_5	3.8	0.9	3.7	1.2	3.6	1.2	3.7	1.1
DPP_6a	4.0	0.9	4.1	0.8	4.0	0.7	4.0	0.8
DPP_6b	4.4	0.7	4.6	0.6	4.4	0.6	4.5	0.7
DPP_6c	4.0	0.7	4.3	0.6	3.7	1.1	3.9	0.9
DPP_6d	4.1	0.7	4.3	0.6	4.2	0.7	4.2	0.7
DPP_6e	4.5	1.0	4.6	0.6	4.7	0.5	4.6	0.8
DPP_6f	3.6	1.2	4.3	0.7	3.0	1.4	3.4	1.3
DPP_6g	3.7	1.2	4.1	0.8	3.5	1.0	3.7	1.1
DPP_6h	4.2	1.1	4.4	0.9	4.2	0.7	4.2	0.9
DPP_6i	3.7	1.4	4.2	1.1	3.5	1.2	3.7	1.3
DPP_6j	4.3	0.9	4.2	1.1	3.8	0.9	4.1	1.0
DPP_6k	3.6	1.3	3.9	1.3	3.4	1.3	3.6	1.3
DPP_6l	3.4	1.2	3.8	1.2	3.1	1.2	3.3	1.2
DPP_7	3.7	1.0	3.9	0.9	3.9	0.9	3.8	0.9

Audit (AUD)

Table 6.5 shows the descriptive statistics of audit as one of the components for transparency and reliable information. Validity test examined in Chapter 5 shows that question number 2 (AUD_2) is not a valid item. This item is excluded from the item of audit. The score ranges from 2.2 (AUD_1c) to 4.4 (AUD_3, AUD_6, and AUD_7). Although there is a wide gap between minimum and maximum items' mean scores, the items' mean scores are basically similar.

Table 6.5 Descriptive Statistics of Audit Items

This table presents samples' means and standard deviations (SD) of Audit Items. Each item refers to item questionnaire number in appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
AUD_1a	3.8	0.8	4.2	0.7	3.8	0.8	3.9	0.8
AUD_1b	4.0	0.7	4.1	0.7	4.1	0.7	4.1	0.7
AUD_1c	2.2	1.3	2.9	1.2	3.1	1.3	2.7	1.4
AUD_3	3.7	0.9	4.3	0.7	4.4	0.7	4.1	0.9
AUD_4	3.7	1.0	4.1	1.0	4.2	0.8	4.0	1.0
AUD_5	3.5	0.9	3.9	1.2	3.8	0.9	3.7	1.0
AUD_6	4.1	0.7	4.3	0.7	4.4	0.7	4.3	0.7
AUD_7	4.1	0.7	4.2	0.9	4.4	0.7	4.3	0.7

Bank Performance (BP)

Table 6.6 shows the descriptive statistics of bank performance of foreign-, private domestic-owned banks, and state-owned banks. The score ranges from 3.0 (BP_3) to 4.2 (BP_1). The result shows that the bank performance of the three types of ownership is not varied. However, state-owned banks persistently have the lowest bank performance.

Table 6.6 Descriptive Statistics of Bank Performance Items

This table presents samples' means and standard deviations (SD) of Bank Performance Items. Each item refers to item questionnaire number in appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
BP_1	4.2	0.5	4.1	0.8	3.4	1.0	3.8	0.9
BP_2	4.0	0.6	4.1	0.8	3.4	1.0	3.8	0.9
BP_3	3.9	0.6	4.0	0.7	3.0	0.9	3.5	0.9
BP_4	3.9	0.7	3.9	0.7	3.1	1.0	3.5	0.9

Risk Management

Risk management is divided into three constructs, which are: capital risk (CAPR), diversification risk (DIVER), and reliability risk (RELI). Table 6.7 shows the descriptive statistics of risk management items. Mean score of capital risk ranges from 3.8 (CAPR_1 and CAPR_2), and 4.6 (CAPR_3 for foreign-owned and private domestic owned banks). Mean score of diversification risk ranges from 3.4 (RELI_3) to 4.3 (RELI_2). Table 6.7 shows capital risk and

diversification risk quite similar between types of ownership. In general, mean score items is similar for different type of banks ownership.

Table 6.7 Descriptive Statistics of Risk Management Items

This table presents samples' means and standard deviations (SD) of Risk Management Items. Each item refers to item questionnaire number in Appendix A1.

	Foreign Bank		Private Domestic		State		Aggregate Sample	
Variable	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
CAPR_1	3.8	0.8	4.2	0.9	4.0	1.0	3.9	0.9
CAPR_2	3.8	0.6	4.4	0.6	4.1	1.0	4.0	0.9
CAPR_3	4.6	0.6	4.6	0.6	4.5	0.7	4.6	0.7
CAPR_4	4.0	0.5	4.4	0.6	4.2	0.7	4.2	0.6
DIVER_1	3.6	1.2	2.8	1.2	3.0	1.2	3.2	1.2
DIVER_2	4.3	1.0	4.0	1.1	4.5	0.6	4.3	0.9
DIVER_3	4.7	0.7	4.4	0.9	4.7	0.4	4.7	0.7
DIVER_4	2.6	1.2	1.5	0.9	3.1	1.2	2.6	1.3
RELI_1	3.8	1.1	3.6	1.4	3.8	0.8	3.8	1.1
RELI_2	3.7	0.9	4.3	0.7	4.3	0.7	4.1	0.8
RELI_3	3.8	0.7	3.9	0.8	3.4	1.0	3.7	0.9

Regression Results

Table 6.8 presents simultaneous regression results for triangle gap model of corporate governance using three-stages least square (3SLS). The table provides three equations analysis including three classified samples, those are: foreign-owned bank, private domestic-owned banks (D1), and state-owned banks (D2). The first equation uses composite index of corporate governance practices (FS_CGPR) as the endogenous variable. This variable is represented by score factor of corporate governance policies items. The second equation uses composite index of capital risk as the endogenous variable. This variable is represented by score factor of capital risk items. The third equation uses qualitative ROE (return on equity) as the endogenous variable. This variable represents the main proxy for bank performance (BP).

Table 6.8 Regression Results for Triangle Gap Model of Corporate Governance

Three-Stage Least Squares (3SLS) in a system of simultaneous equations estimate the triangle gap model of corporate governance. Three endogenous variables are: corporate governance practices (FS_CGPR) as proxy for corporate governance), capital risk (FS_CAPR) as proxy for risk management, and bank performance (BP) as proxy for bank performance. Exogenous variables are shareholders' rights and responsibilities (FS_SRR), corporate governance polices (FS_CGPO), disclosure policies and practices, audit (FS_AUD), diversifiable risk (FS_DIVER), reliability risk (FS_RELI), three instrument variables of bank performance (BP_2, BP_3, and BP_4). Types of bank ownership are represented by three dummy variables; D1=1 for private domestic-owned banks and 0 for the others, D2=1 for state-owned banks and 0 for the others. The regression analysis is based on primary data of research survey 2006.

Variable	Endogenous Variable								
	Corporate Governance Practices (FS_CGPR)			Risk Management (FS_CAPR)			Bank Performance (BP_1)		
	Coef.	t-value		Coef.	t-value		Coef.	t-value	
Constant	0.001	0.079		0.088	0.943	0.756	21.445	***	
FS_SRR1	-0.176	-15.228	***						
FS_SRR2	-0.053	-5.733	***						
FS_SRR3	0.031	3.300	***						
FS_SRR4	0.073	9.861	***						
FS_CGPO1	0.249	25.551	***						
FS_CGPO2	-0.018	-1.569							
FS_CGPO3	0.282	30.004	***						
FS_CGPO4	0.070	8.240	***						
FS_CGPO5	0.196	23.781	***						
FS_DPP1	0.354	33.544	***						
FS_DPP2	0.446	38.453	***						
FS_DPP3	0.013	1.491							
FS_DPP4	-0.035	-3.755	***						
FS_AUD1	0.140	16.697	***						
FS_AUD2	0.224	26.709	***						
BP_1				-0.075	-3.531	***			
FS_DIVER				0.083	4.551	***			
FS_RELI				0.188	11.047	***			
FS_CAPR							-0.281	-30.342	***
BP_2							0.629	64.608	***
BP_3							0.612	58.997	***
BP_4							-0.398	-35.803	***
FS_CGPR				0.352	12.614	***	0.243	22.834	***
D1* FS_CGPR				-0.013	-0.366		-0.133	-8.777	***
D2* FS_CGPR				-0.378	-11.436	***	-0.211	-14.848	***
D1				0.558	13.202	***	-0.073	-4.483	***
D2				0.287	8.080	***	-0.167	-11.578	***
Goodness of Fit:									
R^2	0.769			0.203			0.822		
Adj. R^2	0.769			0.202			0.822		

*** significant at 1%

The first equation estimates seventeen coefficients of parameters of corporate governance variables. Four variables represent composite indices of shareholders' rights and responsibilities (FS_SRR), five variables represent composite indices of corporate governance policies (FS_CGPO), four variables represent composite indices of disclosure policies and practices (FS_DPP), and two variables represent composite indices of audit (FS_AUD).

The table shows that most exogenous variables have significant influence on FS_CGPR at 1% level of alpha. Only FS_CGPO2 and FS_DPP3 have no significant effect on FS_CGPR. The results suggest that corporate governance practices are related to stakeholders' interests, corporate governance policies, management transparencies, and monitoring mechanisms.

The second equation estimates eight coefficients of parameters of risk management variables. Two variables represent other types of risk management besides capital risk (FS_CAPR) as instrument variables; one variable is bank performance (BP_1) and the other is FS_CGPR.

In this regression, two dummy variables of types of bank ownership are included in the equation. The type of bank ownership moderates the effect of FS_CGPR on FS_CAPR. Dummy variables D1 and D2 represent private domestic-owned banks, and state-owned banks, respectively. Another type of bank ownership, foreign-owned banks, is not represented by dummy variable.

The table shows that FS_DIVER and FS_RELI have significant effect on FS_CAPR at 1% level of alpha. Both FS_DIVER and FS_RELI have positive effect on FS_CAPR. Furthermore, BP_1 has significant effect on FS_CAPR at 1% level of alpha. BP_1 has negative effect on FS_CAPR. These results substantiate the second hypothesis (H_2), which states that there is negative inter-relationship between bank performance and risk management. This finding confirms the regression analysis using secondary data (see Chapter 4).

The equation shows that FS_CGPR has positive effect on FS_CAPR for foreign-owned banks and private domestic-owned banks. However, FS_CGPR has negative effect on FS_CAPR for state-owned banks. In addition, FS_CGPR has significant effect on FS_CAPR at 1% level of alpha for all types of ownership

except for private-owned banks. These findings partially confirm the third hypothesis (H_3), which states that better corporate governance would lead to better risk management.

The table shows that the effect of FS_CGPR on FS_CAPR is sensitive to different types of bank ownership. Coefficients of parameters of FS_CGPR are 0.352, 0.339, and -0.026 for foreign-owned banks, private domestic-owned banks, and state-owned banks, respectively.[1] The results indicate that the relationship between corporate governance and risk management is more sensitive for foreign-owned banks than for the other types of bank ownership, while the state-owned banks are placed in the last order of sensitivity. The results confirm the fifth hypothesis (H_{5a} and H_{5b}), which predicts that there is particular sensitivity order of the relationship due to different types of bank ownership. This finding confirms the regression analysis using secondary data (see Chapter 4). Different signs of coefficients of parameters between primary data and secondary data results are due to different operational variables for the two research methods.

The third equation estimates nine coefficients of parameters of bank performance variables. Three variables represent other types of bank performance as instrument variables, two endogenous variables are FS_CAPR and FS_CGPR. This equation is quite different from the nonlinear equation in the model based on secondary data due to different variable measurement. The type of bank ownership moderates the effect of FS_CGPR on BP_1. Dummy variables D1 and D2 represent private domestic-owned banks and state-owned banks, respectively. Another type of banks ownership, foreign-owned banks, is not represented by dummy variable.

Table 6.2 shows that three instrument variables of bank performance have significant effect on BP_1 at 1% level of alpha. BP_2 and BP_3 have positive effect on BP_1, however BP_4 has negative effect on BP_1. The results suggest that there is different target performance with lead trade-off between return on

[1] The FS_CGPR coefficient of parameter for foreign-owned banks is 0.352. The FS_CGPR coefficient of parameter for private domestic-owned banks is 0.352-0.013. The FS_CGPR coefficient of parameter for state-owned banks is 0.352-0.378.

equity and return on assets based on industry average performance as the benchmark.

FS_CAPR has significant effect on BP_1. Furthermore, FS_CAPR has negative effect on BP_1. This result substantiates the second hypothesis (H_2), which states that there is negative inter-relationship between bank performance and risk management. This result also confirms research finding based on secondary data (see Chapter 4).

FS_CGPR has significant effect on BP_1. FS_CGPR has positive effect on BP_1. The table shows that the effect of FS_CGPR on BP_1 is sensitive to different types of bank ownership. Coefficients of parameters of FS_CGPR are 0.243, 0.110, and 0.032, for foreign-owned banks, private domestic-owned-banks, and state-owned banks, respectively.[2] Thus, these findings confirm the fourth hypothesis (H_4), which states that better corporate governance would lead to better performance. The results also indicate that the relationship between corporate governance and bank performance is more sensitive for foreign-owned banks than for the other types of bank ownership, while the state-owned banks are placed in the last order of sensitivity. The results confirm the sixth hypothesis (H_{6a} and H_{6b}), which predicts that there is particular sensitivity order of the relationship due to different types of bank ownership.

[2] FS_CGPR coefficient of parameter for foreign-owned banks is 0.243. The FS_CGPR coefficient of parameter for private domestic-owned banks is 0.243-0.113. The FS_CGPR coefficient of parameter for state-owned banks is 0.243-0.211.

CHAPTER 7
DISCUSSION

The concept of triangle gap model of corporate governance provides a new approach to investigating the degree of corporate governance implementation. This study builds three equations simultaneously: corporate governance, risk management, and bank performance. Firstly, this study investigates the effect of corporate governance on risk management and bank performance. Secondly, this study examines interrelationship between risk management and bank performance. Thirdly, this study analyses the degree of sensitivity of these relationships due to different types of bank ownership. The sensitivity differences represent existing gap of interests due to different types of ownership. Secondary data and primary data are used separately to test these relationships.

This study finds that foreign-owned banks have better performance than the performance of the other types of bank ownership. They are also concerned about capital ratios, which represent better obedience towards the central bank regulation. The results are consistent with previous studies, which also find that foreign-owned banks outperform private domestic-owned banks (Koeva 2003; Havrylchyk 2003).

The Ownership Control as a Key Determinant of Corporate Governance

This study uses ownership structure (for secondary data) and shareholders' rights and responsibilities (for primary data) as proxies for ownership control. This study finds different results for the two research methods.

The study for secondary data finds that ownership structure has no significant effect on corporate governance. The result does not confirm the hypothesis, which states that there is a positive relationship between ownership structure (OS) and corporate governance. This finding contradicts Shleifer and Vishny's (1997) study who suggest that the concentration level of ownership is a

significant factor attracting shareholders to control managers and to perform corporate governance mechanism.

There are two possible rational explanations on the insignificant findings. First, ultimate shareholders do not inform explicitly in Indonesian financial and banking report systems. Most financial and banking reports only inform institutional shareholders rather than ultimate shareholders. Thus, the reports can not clearly identify the actual dispersion of ownership structure. Second, as shown in the descriptive statistics, the aggregate samples show that the ownership dispersion is very low, with more than 70% controlling shareholders. It suggests that most ownership structure has monotonic distribution towards concentrated ownership.

The study for primary data finds that variables of shareholders' rights and responsibilities (SRR) have significant effect on corporate governance practices. This result may provide more accurate information about the ultimate shareholders' role to direct management in implementing the corporate governance practices. Hence, this study confirms the hypothesis that ownership control plays an important role as a key determinant of corporate governance practices.

Interrelationship between Bank Performance and Risk Management

The study for secondary data finds that there is causal relationship between bank performance and risk management. Bank performance has negative effect on risk management; likewise, risk management has negative effect on bank performance. This result supports previous study by Cebenoyan and Strahan (2004). Banks with suitable and reliable risk management mechanism show an increase in performance, and vice versa. Interrelationship between the two represents a risk and return trade-off.

The study for primary data provides parallel result with secondary data study that there is negative causal relationship between bank performance and risk management. These findings confirm the hypothesis, which states that there is inter-relationship between bank performance and risk management. Statistical

results robustly support the hypothesis and prove that good risk management mechanism increase bank performance.

Relationship between Corporate Governance and Risk Management

The study for secondary data finds that there is a negative relationship between corporate governance and risk management for all types of bank ownership, except state-owned banks. This result partially confirms the hypothesis that better corporate governance leads to better risk management. Negative relationship between corporate governance and risk management indicates that good corporate governance may reduce the risk of bank.

The primary data study finds that there is a positive relationship between corporate governance practices and risk management. In this study, both corporate governance practices and risk management are measured based on Likert scale. Especially for risk management, higher score of risk management mean banks have better implementation in managing their risk. In other words, positive relationship between corporate governance and risk management indicates that good corporate governance may reduce the risk of bank.

Relationship between Corporate Governance and Bank Performance

This secondary data study finds that as predicted, there is nonlinear relationship between corporate governance and bank performance. The nonlinear relationship refers to the measurement of corporate governance proxy based on composite value of CAR equation. Central bank as the regulator determines the minimum CAR of 8%. Other capital and asset ratios should also meet the regulator's stipulations. Customers and stakeholders will be less interested in banks which can not meet these stipulations. Indeed, it takes the banks into unhealthy category and then reduces their reputation. As long as the banks do not fulfil the stipulations, public may perceive that the banks have no concern on implementing good corporate governance. Banks may find difficulties getting more funds at lower cost. In this situation, any efforts to improve the ratios will

need more costs than benefits. Thus, in this state of nature, there is negative effect of corporate governance on bank performance.

Furthermore when the capital and asset ratios of banks have fulfilled the stipulations, it will turn the status of bank into healthy banks category. This effort will attract public and customers to deposit their funds into the banks. In this state of nature, the negative effect of corporate governance on bank performance will turn to be positive effect. Hence, based on this argument, it can be predicted that there is nonlinear relationship between corporate governance and bank performance.

The primary data study finds that there is a positive relationship between corporate governance practices and bank performance. This result supports the finding the secondary data analysis. Both secondary data and primary data analyses confirm hypothesis 4 that better corporate governance leads to better bank performance.

The Sensitivity of Triangle Gap Model Relationships to the Type of Bank Ownership

Triangle gap model attempts to explain the effect of external forces on risk management and bank performance. These external forces are represented by composite value of capital ratios and ownership structure. Higher composite value indicates higher obedience of the bank towards the rules. The objective of the rules is to protect public and minority interests. Higher banks' capabilities of meeting the regulation stipulation are expected to have better risk management and bank performance. Hence, better implementing good corporate governance would be represented by these better relationships rather than by the composite value of corporate governance per se.

Different types of bank ownership may have different intention in implementing good corporate governance. The intention differences lead to different effect of corporate governance on risk management and bank performance. Wider spread of differences indicates wider gap in implementing good corporate governance amongst the different types of bank ownership.

a. The Sensitivity of Relationship between Corporate Governance Practices and Risk Management to the Type of Bank Ownership

Secondary data analysis provides mixed results. Table 7.1 summarises the estimation of CAR coefficients of parameters (composite value of corporate governance) from VAR equation (risk management) and ROE equation (bank performance). The table indicates that the relationship between corporate governance and risk management is sensitive to different types of bank ownership. The results clearly show that there are gap orders amongst different types of bank ownership. The table shows that foreign-owned banks have better implemented good corporate governance, joint-venture-owned banks in the second order, and private domestic-owned banks in the third order. This finding parallel with Unite and Sullivan (2003) who find foreign competition compels domestic banks to be more efficient on account of increased risk, and to become less dependent on relationship-based banking practices.

The state-owned banks show insignificant of CAR coefficient of parameter. This finding supports the previous study by Arun and Turner (2003). They argue that in terms of regulators exerting governance, the government is virtually removed as an effective monitor in the case of government-owned banks. If the government acts as both the owner and regulator, there will be a conflict of interests in its two roles. These arguments suggest that the operations of state-owned banks tend to be inefficient by nature, especially the banks which no longer serve the special missions of public policies.

Table 7.1. Gap Effect of Corporate Governance (CAR) on Risk Management and Bank Performance

Type of Bank Ownership	Risk Management		Bank Performance			
	CAR		CAR		CAR^2	
Foreign-owned banks	-5.569	***	-9.929	**	7.169	**
Joint-venture-owned banks	-1.73	***	-0.044	**	-0.081	**
Private domestic-owned banks	-0.677	***	0.586	***	-1.047	**
State-owned banks	19.087		-7.764		22.094	

*, **, *** sig at 10%, 5%, 1%

Primary data analysis provides clearer results than do secondary data results. This study finds that there are particular patterns of order sensitivity of the relationship to type of bank ownership. This study robustly confirms the hypothesis 5a that the relationship between corporate governance and risk management is more sensitive for foreign-owned banks than for private domestic-owned banks; and the hypothesis 5b that the relationship between corporate governance and risk management is more sensitive for private domestic-owned banks than for state-owned banks.

b. The Sensitivity of Relationship between Corporate Governance Practices and Bank Performance to the Type of Bank Ownership

Secondary data analysis yields mixed results. Table 7.1 shows that the relationship between corporate governance and bank performance is sensitive to different types of bank ownership. The results show that there is nonlinear relationship between corporate governance and bank performance for foreign-owned banks, private domestic-owned banks, and state-owned banks. There is a U-shape relationship between corporate governance and bank performance for foreign-owned banks. These results are parallel to our arguments in the discussion section about the relationship between corporate governance and bank performance.

This study also finds an inverse U-shape relationship between corporate governance and bank performance for private domestic-owned banks. The result indicates that lower level of CAR (as the main proxy for corporate governance) leads to bank performance deterioration in the first relationship, and vice versa for the second relationship. There is a possible explanation for this finding. Since financial crisis in 1997, many Indonesian banks have been experiencing deteriorated financial performance. Central Bank attempts to revive the financial banking systems by classifying the health of banks based on minimum CAR level. On account of these circumstances, customers perceive that higher CAR will improve the status of the banks towards healthy (sound) banks. An increasing CAR may attract the customers to deposit their money into the banks. As a

consequence, it will reduce the cost of funds of the banks. On the other hand, higher CAR may require higher cost of funds borne by the shareholders. Hence, the relationship between CAR and corporate governance is not linear. First, the effect of CAR on bank performance is positive up to a particular level. Second, the effect of CAR on bank performance turns to be negative. This argument suggests that there is a cost trade-off burdening depositors and owners.

Primary data analysis provides clearer results than does secondary data analysis. This study finds that there are particular patterns of order sensitivity of the relationship to the type of bank ownership. This study robustly confirms the hypothesis H_{6a} that the relationship between corporate governance and bank performance is more sensitive for foreign-owned banks than for private domestic-owned banks; hypothesis H_{6b} that the relationship between corporate governance and bank performance is more sensitive for private domestic-owned banks than for state-owned banks.

The results indicate that foreign-owned banks have better implemented good corporate governance. It suggests that other types of bank ownership have yet to show high intention to implement good corporate governance. Empirical findings support previous study by Douma, George, and Kabir (2003). They also document positive effect of foreign ownership on firm performance, and the effect is substantially attributable to foreign corporations that have, on average, larger shareholding, higher commitment and longer-term involvement. Furthermore, this study is also consistent with Goldberg, Dages, and Kinney (2000) and Havrylchyk, (2003) who find that foreign-owned banks outperform domestic-owned banks in developing countries. The results suggest that reputable foreign-owned banks be able to implement good corporate governance better than do domestic-owned banks.

Joint venture-owned banks show significant nonlinear negative effect of corporate governance on bank performance. There are two possible rational explanations about the result. Firstly, joint-venture-owned banks have unique characteristics. The banks mostly operate only in Jakarta and commonly serve the multinational companies related with their own countries, especially in import-

export transactions. Secondly, the banks are more concerned about business customers than about retail customers, represented by their highest CAR and other capital ratios. In this state of nature, higher level of CAR leads to more cost of funds and makes it less efficient whilst they do not take more benefits for the higher level of CAR due to their unique characteristics.

Private domestic-owned banks show that there is significantly inverse nonlinear relationship between corporate governance and bank performance. This result suggests that the banks are only concerned about minimum CAR. In this state of nature, higher level of CAR leads to more cost of funds and makes it less efficient. The banks' customers also believe that government implicitly provides bailout guarantee for their deposits in domestic-owned banks. Thus, domestic-owned banks may focus on maintaining their level of CAR to be closer to the minimum level.

Financial literatures provide rational explanations about insignificant finding for state-owned banks in implementing good corporate governance. As explained in the hypothesis development, there are three perspectives that can explain the roles of state-owned banks in the relationship between corporate governance and their performance. Those perspectives are: political perspective, agency perspective, and social welfare perspective.

Political perspective suggests that state-owned companies may be intervened by the regime to increase their popularity and political voting (Shapiro and Willig 1990; Shleifer and Vishny 1994). Agency perspective suggests that state-owned banks have no principals who have enough power to control the banks. Social welfare perspective suggests that state-owned companies serve special mission to support the government policies. It seems that state-owned banks are faced with many problems in implementing good corporate governance more than are domestic-owned banks. It supports the argument that state-owned banks underperform domestic-owned banks (Bonin et al. 2003; Cornett, Guo, Khaksari, and Tehranian 2000).

CHAPTER 8
CONCLUSIONS AND IMPLICATIONS

Conclusions

This study provides a new approach to explaining corporate governance mechanism called triangle gap model. The model consists of three constructs, those are corporate governance, risk management, and bank performance. The model also includes type of bank ownership as moderating variable, and ownership structure as a key determinant of corporate governance. The model suggests that implementing good corporate governance occurs when there are interrelationships amongst the three constructs.

The model uses simultaneous equation model, whilst the coefficients of parameters are estimated by generalised method of moment. The results can be concluded as follows:

1. Ownership structure has no significant effect on corporate governance. The result does not confirm the first hypothesis.
2. There is significant negative inter-relationship between risk management and bank performance. The result confirms the second hypothesis.
3. Corporate governance has significant and negative effect on risk management. The result confirms the third hypothesis.
4. Corporate governance has nonlinear effect on bank performance. The result confirms the fourth hypothesis.
5. Relationship between corporate governance and risk management is sensitive to type of bank ownership. The results are statistically robust for all types of bank ownership, except state-owned banks. The result strongly confirms the fifth hypothesis.
6. Relationship between corporate governance and bank performance is sensitive to different types of bank ownership. The study finds the U-shape relationship for foreign-owned banks and the inverse U-shape relationship for private owned-banks. The result partially confirms the sixth hypothesis.

The model for primary data also uses three-state least squares (3SLS) with combination of factor analysis to increase the robustness of results. Type of ownership plays major differences in shareholders' rights and responsibility, corporate governance policies, corporate governance practices, disclosures policies and practices, audit, banks performance, and risk management. The results of primary data analysis can be concluded as follows:

1. The effects of shareholder rights and responsibilities (as representation of ownership control) on corporate governance practices are statistically significant. This finding supports the first hypothesis.
2. There is negative interrelationship between risk management and bank performance. This finding confirms the second hypothesis.
3. Corporate governance practices have significant effect on risk management. There is positive relationship between corporate governance practices and risk management. This result supports the third hypothesis.
4. Corporate governance practices have significant effect on bank performance. There is positive relationship between corporate governance practices and bank performance. This result confirms the fourth hypothesis.
5. The relationships between corporate governance and risk management are sensitive to different type of ownership. The magnitude of sensitivity follows particular order as theory predicted. Foreign owned-bank has highest coefficient of parameter, follows by private domestic-owned banks, and state-owned banks. The results support the fifth hypothesis.
6. The relationships between corporate governance and bank performance are sensitive to different type of ownership. The magnitude of sensitivity follows particular order as theory predicted. Foreign owned-bank has highest coefficient of parameter, follows by private domestic-owned banks, and state-owned banks. The results support the sixth hypothesis.

In general, the findings for both secondary data and primary data analyses are parallel. Primary data analyses shows support and strengthen findings for secondary data analysis.

Implications

Empirical research findings provide several implications. Managers should know that in order to implement good corporate governance, they should be concerned about inter-relationships among the three constructs, those are corporate governance, risk management, and bank performance. The findings robustly confirm that banks that implement good corporate governance have higher advantage of increasing their performance and reducing their risk.

The findings provide shareholders with information that they have an important role to force the banks' management to implement good corporate governance. In order to control the managers to implement good corporate governance, they should establish certain control mechanism.

Empirical findings indicate that different types of ownership have different concerns on implementing good corporate governance. The findings inform the government that it has to be more concerned over banks with worse corporate governance practices. In addition, the government should also promote and socialize corporate governance and its relationship to performance.

Indonesian Central Bank has to encourage banks to implement corporate governance practices through enacting rules and regulations. Corporate governance practices will ensure that banks maintain the level of risk they can handle and give depositors sufficiently safe level of their savings and investments. Several regulations encouraging corporate governance practices are: legal lending limits, the quality of assets, knowledge of your customers' rules, protection rules against money laundering, etc.

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APPENDIX A1

Survey Research

East Asian Development Network
2006

Questionnaire

INTRODUCTION

Dear Respondent,

We have been doing research about the interrelationship amongst corporate governance, risk management, and bank performance (three constructs). The purposes of this study are to analyze and to identify relevant factors of corporate governance and risk management which are in line with bank performance. The results of this study provide important information for both bankers and regulator to cope with potential multi-conflict in banking sector.

This research attempts to cover both secondary data and primary data. In order to get high quality research results, we need high quality data. Therefore, we make a request for your support to fill in all the answers of the following statements/questions.

This research is funded by East Asian Development Network (EADN). The completed research study will be published on-line as EADN working paper. EADN also encourages researchers to submit their research for publication and to disseminate their research results to policy makers in their countries. In case where the research findings are judged to have particularly important topical policy implications, EADN may provide additional funding for the organisation of a dissemination seminar to policy makers, academia, and other interested parties.

We are grateful for your enthusiastic supports. We hope this research helps build the foundation for the debate on the interrelationship amongst the three constructs in banking sector.

Yogyakarta, 1 March 2006.
Yours sincerely,

Prof.Dr. Eduardus Tandelilin, MBA.
(Researcher team leader)

Please, append √ sign(s) to box(es) when you want result of the completed research:

☐ Yes, I want to get the completed research report

☐ Yes, I want to know further information about the research result through a seminar.

General Information about the Company

The following questions are facts about your corporation and its ownership that are required to classify the respondents in the survey. The information, which you provide, will be held confidentially, and will not be disclosed without prior permission from you.

Name of the company:	
Name of person who completed/authorized this questionnaire:	
Position in the company:	
Your e-mail address or other contact details:	

Is your company a listed company? ☐ Yes ☐ No

Please focus on the present controlling shareholders of your corporation (if any):

a. State Owned Enterprise? ☐ Yes ☐ No
b. family controlled company? ☐ Yes ☐ No
c. Subsidiary of multinational company? ☐ Yes ☐ No
d. Joint venture ☐ Yes ☐ No

How many directors in the Board represent this controlling group? ☐

Are the Chairman of The Commissions and The President Director either affiliated with or appointed by the controlling shareholders?

☐ Yes
☐ No
☐ CEO only
☐ Chairman only
☐ NA

General Guidance

Append an **X** or √ sign to a box of particular score, which is suitable to your agreement about following statements. The range scores are 1 for disagree unto 5 for agree with the statement.

I. Shareholder Right and Responsibility

No.	Item	1	2	3	4	5
1.	The annual meetings of shareholders conducted within 6 months after the accounting year-end.	☐	☐	☐	☐	☐
2.	Shareholders given at least 28 days notice of the annual shareholders' meetings	☐	☐	☐	☐	☐
3.	Shareholders are encouraged to attend and vote during the annual shareholders meetings.	☐	☐	☐	☐	☐
4.	Shareholders are encouraged to attend and vote during the special shareholders meetings.	☐	☐	☐	☐	☐
5.	Shareholders are given right to subscribe when the board of company increases its share capital by less than 5%.	☐	☐	☐	☐	☐
6.	Rate the way financial information is provided to all shareholders to assist investment decisions, especially in terms of:					
	a. High reliable and accurate information	☐	☐	☐	☐	☐
	b. Speed transmitted on time	☐	☐	☐	☐	☐
	c. Clarity of the presented to show comparisons	☐	☐	☐	☐	☐
7.	Rate the way non-financial information (e.g. Information on the Board of Directors (BoD) and Board of Commissioners (BoC)) is provided to all shareholders, especially in terms of:					
	a. High reliable and accurate information	☐	☐	☐	☐	☐
	b. Speed transmitted on time	☐	☐	☐	☐	☐
	c. Includes important non-financial information to explain performance					
8.	There is adequate opportunity for shareholders to receive and review the financial reports in order to ask for questions to be put on the Agenda at the annual shareholders' meeting.	☐	☐	☐	☐	☐
9.	Is there adequate time given during the annual shareholders' meeting for shareholders to ask questions?	☐	☐	☐	☐	☐
10.	The annual meeting of shareholders decide the following items:					
	a. appointment of BoC and BoD	☐	☐	☐	☐	☐
	b. compensation of BoD and BoC	☐	☐	☐	☐	☐
	c. appointment of external auditors	☐	☐	☐	☐	☐

II. Corporate Governance Polices

No.	Item	1	2	3	4	5
1.	The company have a written code of corporate governance which covers the specification of:					
	a. the rights of shareholders	☐	☐	☐	☐	☐
	b. duties of the Boards	☐	☐	☐	☐	☐
	c. the rules of disclosure	☐	☐	☐	☐	☐
2.	The policies of the company are easily available to:					
	a. Regulators	☐	☐	☐	☐	☐
	b. Employee	☐	☐	☐	☐	☐
	c. Public	☐	☐	☐	☐	☐
3.	Compliance officer competence to ensure full compliance of the company with existing laws and regulations	☐	☐	☐	☐	☐
4.	The Board of Commissioners, to the extent permissible under the law, specifically made responsible for ensuring adherence to the code of corporate governance	☐	☐	☐	☐	☐
5.	The company have revealed a code of conduct / ethics clearly	☐	☐	☐	☐	☐
6.	The company distributes code of conduct / ethics to:					
	a. All employee	☐	☐	☐	☐	☐
	b. Shareholders	☐	☐	☐	☐	☐
7.	The code of conduct takes into account the following issues					
	a. Ethical standards in dealing with customers, vendors and other relevant parties	☐	☐	☐	☐	☐
	b. Company expectations of management and employees	☐	☐	☐	☐	☐
	c. The privacy of information about outsider companies	☐	☐	☐	☐	☐
	d. The privacy of information about employees	☐	☐	☐	☐	☐
	e. The importance of compliance with laws and regulations	☐	☐	☐	☐	☐
8.	All employees required to confirm periodically in writing that they have complied with the code of conduct	☐	☐	☐	☐	☐

III. Corporate Governance Practices

No.	Item	1	2	3	4	5
1.	BoD have regular meetings with the BoC	☐	☐	☐	☐	☐
2.	There are any potential conflicts of interest between the company and the member of its BoC and BoD.	☐	☐	☐	☐	☐
3.	The company has an unequivocal list of the share owned by:	☐	☐	☐	☐	☐
	a. the members of the BoD and BoC.	☐	☐	☐	☐	☐
	b. the families of the members of the BoD and BoC.	☐	☐	☐	☐	☐
4.	a. The company has an internal written policy regarding BoD members having concurrent positions as directors in the other companies	☐	☐	☐	☐	☐
	b. The company has an internal written policy regarding BoC members having concurrent positions as directors in the other companies	☐	☐	☐	☐	☐
5.	The following committees are actively functioning in the company	☐	☐	☐	☐	☐
	a. Audit committee (for supervising the external and internal auditors)	☐	☐	☐	☐	☐
	b. Compensation committee (For reviewing BoC, BoD, and management compensation).	☐	☐	☐	☐	☐
	c. Nomination committee (for selecting BoD, and BoC members)	☐	☐	☐	☐	☐
	d. Compliance committee (for adherence to laws, and regulations)	☐	☐	☐	☐	☐
	e. Risk management committee	☐	☐	☐	☐	☐
	f. Executive committee	☐	☐	☐	☐	☐
	g. Insurance committee	☐	☐	☐	☐	☐
6.	The company provides formal performance appraisal review of the BoD regularly.	☐	☐	☐	☐	☐
7.	The company provides formal performance appraisal review of the BoC regularly.	☐	☐	☐	☐	☐
8.	The company provides an internal nomination process for the BoC (including fit and proper test).	☐	☐	☐	☐	☐
9.	The company provides an internal nomination process for the BoD (including fit and proper test, and has at least 5 years work experience as executive officer).	☐	☐	☐	☐	☐
10.	All candidates are given a written appointment letter as commissioners.	☐	☐	☐	☐	☐
11.	All candidates are given a written appointment letter as directors.	☐	☐	☐	☐	☐
12.	The following type of compensation are sufficient to Directors:					
	a. Salary independent of performance	☐	☐	☐	☐	☐
	b. Bonus dependent on performance	☐	☐	☐	☐	☐
	c. Stock options	☐	☐	☐	☐	☐
13.	The following type of compensation are sufficient to Commissioners:					
	a. Salary independent of performance	☐	☐	☐	☐	☐
	b. Bonus dependent on performance	☐	☐	☐	☐	☐
	c. Stock options	☐	☐	☐	☐	☐

14.	a. The roles, responsibilities, and delegated authority of the BoC are clearly spelled out in writing.	☐ ☐ ☐ ☐ ☐
	b. The roles, responsibilities, and delegated authority of the BoD are clearly spelled out in writing.	☐ ☐ ☐ ☐ ☐
15.	The BoD has effective meeting procedures (for example, are meeting agendas and board papers distributed in advance?)	☐ ☐ ☐ ☐ ☐
16.	The BoC have effective meeting procedures (for example, are meeting agendas and board papers distributed in advance?)	☐ ☐ ☐ ☐ ☐
17.	a. The BoD meetings are minuted.	☐ ☐ ☐ ☐ ☐
	b. The BoC meetings are minuted.	☐ ☐ ☐ ☐ ☐
18.	The BoD actively monitors the results of the monthly business.	☐ ☐ ☐ ☐ ☐
19.	The BoC gives sufficient input to the BoD on matters of strategy.	☐ ☐ ☐ ☐ ☐
20.	The BoC gives sufficient input to the BoD on matters concerning company performance.	☐ ☐ ☐ ☐ ☐
21	The BoD is responsible to the vision and mission, business plan and strategic plan.	☐ ☐ ☐ ☐ ☐
22.	The BoD identifies and selects external specialists when needed expertise is not possessed by existing directors or staff.	☐ ☐ ☐ ☐ ☐
23.	a. Members of BoD are given introduction training.	☐ ☐ ☐ ☐ ☐
	b. Members of BoC are given introduction training.	☐ ☐ ☐ ☐ ☐
24.	a. Members of BoD are provided with the opportunity of ongoing training.	☐ ☐ ☐ ☐ ☐
	b. Members of BoC are provided with the opportunity of ongoing training.	☐ ☐ ☐ ☐ ☐
25.	The company regularly held self assessment of good corporate governance	☐ ☐ ☐ ☐ ☐

IV. Disclosures Policies and Practices

No.	Item	1	2	3	4	5
1.	Your company provides equal access to information for shareholders and investment analysts.	☐	☐	☐	☐	☐
2.	The company publishes and distributes its financial results and management analysis for analysts.	☐	☐	☐	☐	☐
3.	The company posts its financial results and management analysis on the internet.	☐	☐	☐	☐	☐
4.	How frequently does the company conduct analyst briefings? (If 1=1 points, 2=2points, 3=3 points, 4=4points, 5 or more=5 points)	☐	☐	☐	☐	☐
5.	The reports prepared for the annual shareholders meeting contain only basic information of sufficient details to enable investment analysts to assess the financial and non-financial performance of the corporation	☐	☐	☐	☐	☐
6.	The annual report clearly describe the following:					
	a. Risk management system	☐	☐	☐	☐	☐
	b. Business goals and strategies	☐	☐	☐	☐	☐
	c. Cross-shareholdings and cross debt guarantees	☐	☐	☐	☐	☐
	d. Management assessment of business climate and risks	☐	☐	☐	☐	☐
	e. Names of Commissioners and Directors	☐	☐	☐	☐	☐
	f. Commissioners and Directors compensation rates	☐	☐	☐	☐	☐
	g. Principal external jobs held by the Commissioners	☐	☐	☐	☐	☐
	h. Corporate governance practices of the company	☐	☐	☐	☐	☐
	i. Material claims and court cases	☐	☐	☐	☐	☐
	j. Related party transactions	☐	☐	☐	☐	☐
	k. Existing and potential conflicts of interest	☐	☐	☐	☐	☐
	l. Shareholding of Commissioners, Directors or their family members in the company or its related companies	☐	☐	☐	☐	☐
7.	The company track changes in its ownership structure so that any and all voting blocks are known	☐	☐	☐	☐	☐

V. Audit

No.	Item	1	2	3	4	5
1.	Please rate the quality of:					
	a. Internal Audit	☐	☐	☐	☐	☐
	b. Audit Committee	☐	☐	☐	☐	☐
	c. External Audit	☐	☐	☐	☐	☐
2.	How many members does your Audit Committee have? (If 1=1 points, 2=2points, 3=3 points, 4=4points, 5 or more=5 points)	☐	☐	☐	☐	☐
3.	How many of these members are independent? (If 1=1 points, 2=2points, 3=3 points, 4=4points, 5 or more=5 points *Independence is defined here as having no financial interest in the company or significant relationships with major shareholders, management, suppliers or customers*	☐	☐	☐	☐	☐
4.	The Audit Committee have regular meetings	☐	☐	☐	☐	☐
5.	The Audit Committee report regularly to the BoC	☐	☐	☐	☐	☐
6.	The Audit Committee have regular meetings with the external auditors	☐	☐	☐	☐	☐
7.	a. The BoC responds to audit findings from internal auditors, external auditors, and regulators.					
	b. The BoC responds to recommendations from internal auditors, external auditors, and regulators.	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐

VI. Bank Performance

No.	Item	1	2	3	4	5
1.	The company has good improvement of return on equity in the last three years.	☐	☐	☐	☐	☐
2.	The company has good improvement of return on assets in the last three years.	☐	☐	☐	☐	☐
3.	The company has better return on equity than industry average (benchmarks).	☐	☐	☐	☐	☐
4.	The company has better return on assets than industry average (benchmarks).	☐	☐	☐	☐	☐

VII. Risk Management

No.	Item	1	2	3	4	5
1.	The company maintains a liquidity asset ratio higher than minimum ratio set by the central bank (overshooting).	☐	☐	☐	☐	☐
2.	The company provides buffer reserves target.	☐	☐	☐	☐	☐
3.	The company prefers to individual investors than institutional investors.	☐	☐	☐	☐	☐
4.	Beside deposit insurance mandatory, the company also provides other liability guarantees.	☐	☐	☐	☐	☐
5.	The company maintains a capital adequacy ratio higher than minimum ratio set by the central bank.	☐	☐	☐	☐	☐
6.	The company offers a wide variety of product as his competitive advantage.	☐	☐	☐	☐	☐
7.	The company has domestic branch office in most of major city.	☐	☐	☐	☐	☐
8.	The company has international branch office in most of country.	☐	☐	☐	☐	☐
9.	The company hedge their risk through derivative instruments	☐	☐	☐	☐	☐
10.	The company uses marking to market approach (on daily basis) for their current position in most derivative instruments	☐	☐	☐	☐	☐
11.	The company has stable net interest margin in the last three years.	☐	☐	☐	☐	☐

Thank You for Your Cooperation

APPENDIX A2

System: EADN1
Estimation Method: Generalized Method of Moments
Date: 06/10/06 Time: 01:25
Sample: 1 606
Instruments: CR GWM RCS LDR PPAPT ATIM MAYOR SDROA NPL2 NPM D4 D7 D3 D4*CAR D7*CAR D3*CAR CAR^2*D4 CAR^2*D7 CAR^2*D3 C

White Covariance

		Coefficient	Std. Error	t-Statistic	Prob.
Constant	C(10)	0.1324	0.0162	8.1670	0.0000
CR	C(11)	0.6570	0.0491	13.3847	0.0000
CCC	C(12)	0.0029	0.0329	0.0867	0.9309
SRR	C(13)	0.2196	0.0335	6.5544	0.0000
LDR	C(14)	-0.0848	0.0133	-6.3730	0.0000
LLP	C(15)	0.8328	0.1052	7.9160	0.0000
FAI	C(16)	0.0032	0.0060	0.5305	0.5958
OWN	C(17)	-0.0087	0.0142	-0.6097	0.5422
Constant	C(20)	1.9419	0.5894	3.2944	0.0010
ROE	C(21)	-0.7186	0.1799	-3.9937	0.0001
NPL	C(22)	2.1492	0.4617	4.6554	0.0000
BR	C(23)	22.4015	3.7222	6.0184	0.0000
CAR	C(24)	-5.5689	1.5186	-3.6672	0.0003
CAR*D1	C(25)	3.8394	1.4455	2.6560	0.0080
CAR*D2	C(26)	4.8919	1.5847	3.0869	0.0021
CAR*D3	C(27)	24.6560	16.9322	1.4562	0.1455
D1	C(28)	-2.2451	0.5649	-3.9745	0.0001
D2	C(29)	-1.8794	0.6085	-3.0887	0.0020
D3	C(210)	-0.9497	2.7818	-0.3414	0.7329
Constant	C(30)	2.0487	0.7148	2.8659	0.0042
VAR	C(31)	-0.0610	0.0197	-3.0925	0.0020
NPM	C(32)	0.7578	0.1367	5.5432	0.0000
CAR	C(33)	-9.9292	4.0384	-2.4587	0.0140
CAR*D1	C(34)	9.8847	4.0129	2.4632	0.0139
CAR*D2	C(35)	10.5149	4.0346	2.6062	0.0092
CAR*D3	C(36)	2.1654	7.8086	0.2773	0.7816
D1	C(37)	-2.1447	0.7189	-2.9834	0.0029
D2	C(38)	-2.1017	0.7126	-2.9496	0.0032
D3	C(39)	-1.0573	0.8969	-1.1789	0.2386
CAR^2	C(310)	7.1692	3.4639	2.0697	0.0386
CAR^2*D1	C(311)	-7.2501	3.4554	-2.0982	0.0360
CAR^2*D2	C(312)	-8.2157	3.4566	-2.3768	0.0176
CAR^2*D3	C(313)	14.9251	19.7122	0.7572	0.4491

Determinant residual covariance		0.121244	
J-statistic		0.414051	

Equation: CAR=C(10)+C(11)*CR+ C(12)*GWM+ C(13)*RCS+ C(14)*LDR+ C(15)*PPAPT +C(16)*ATIM+C(17)*MAYOR
Observations: 550

R-squared	0.698284	Mean dependent var	0.293432
Adjusted R-squared	0.694388	S.D. dependent var	0.287369
S.E. of regression	0.158864	Sum squared resid	13.67886
Durbin-Watson stat	1.530274		

Equation: VAR_MEAN = C(20)+C(21)*ROE+ C(22)*NPL2+ C(23)*SDROA+ C(24)*CAR + C(25)*CAR*D4+ C(26)*CAR*D7+ C(27)*CAR*D3+C(28)*D4+C(29)*D7+C(210)*D3

Observations: 550

R-squared	0.130708	Mean dependent var	0.867834
Adjusted R-squared	0.114580	S.D. dependent var	3.756109
S.E. of regression	3.534376	Sum squared resid	6733.087
Durbin-Watson stat	1.955055		

Equation: ROE= C(30)+C(31)* VAR_MEAN + C(32)*NPM + C(33)*CAR+C(34)*CAR*D4+ C(35)*CAR*D7+ C(36)*CAR*D3+C(37)*D4+C(38)*D7+C(39)*D3+C(310)*(CAR^2) +C(311)*(CAR^2)*D4+ C(312)*(CAR^2)*D7+ C(313)*(CAR^2)*D3

Observations: 550

R-squared	0.141466	Mean dependent var	0.190162
Adjusted R-squared	0.120644	S.D. dependent var	0.749009
S.E. of regression	0.702376	Sum squared resid	264.4261
Durbin-Watson stat	1.487508		

APPENDIX A3

Validity Analysis

Shareholders Right and Responsibility

Correlations

		SUMSRR
X1.1	Pearson Correlation	0.505
	Sig. (2-tailed)	0.000
	N	66.000
X1.2	Pearson Correlation	0.604
	Sig. (2-tailed)	0.000
	N	66.000
X1.3	Pearson Correlation	0.573
	Sig. (2-tailed)	0.000
	N	66.000
X1.4	Pearson Correlation	0.577
	Sig. (2-tailed)	0.000
	N	66.000
X1.5	Pearson Correlation	0.528
	Sig. (2-tailed)	0.000
	N	64.000
X1.6	Pearson Correlation	0.660
	Sig. (2-tailed)	0.000
	N	66.000
X1.7	Pearson Correlation	0.641
	Sig. (2-tailed)	0.000
	N	66.000
X1.8	Pearson Correlation	0.647
	Sig. (2-tailed)	0.000
	N	66.000
X1.9	Pearson Correlation	0.659
	Sig. (2-tailed)	0.000
	N	66.000
X1.10	Pearson Correlation	0.715
	Sig. (2-tailed)	0.000
	N	66.000
X1.11	Pearson Correlation	0.681
	Sig. (2-tailed)	0.000
	N	66.000
X1.12	Pearson Correlation	0.556
	Sig. (2-tailed)	0.000
	N	66.000
X1.13	Pearson Correlation	0.646
	Sig. (2-tailed)	0.000
	N	65.000
X1.14	Pearson Correlation	0.623
	Sig. (2-tailed)	0.000
	N	66.000
X1.15	Pearson Correlation	0.696

	Sig. (2-tailed)	0.000
	N	66.000
X1.16	Pearson Correlation	0.525
	Sig. (2-tailed)	0.000
	N	66.000
SUMSRR	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	66
**	Correlation is significant at the 0.01 level (2-tailed).	
*	Correlation is significant at the 0.05 level (2-tailed).	

Corporate Governance Policies

Correlations

		SUMCGP
X2.1	Pearson Correlation	0.690
	Sig. (2-tailed)	0.000
	N	65.000
X2.2	Pearson Correlation	0.318
	Sig. (2-tailed)	0.010
	N	65.000
X2.3	Pearson Correlation	0.726
	Sig. (2-tailed)	0.000
	N	65.000
X2.4	Pearson Correlation	0.429
	Sig. (2-tailed)	0.000
	N	66.000
X2.5	Pearson Correlation	0.630
	Sig. (2-tailed)	0.000
	N	66.000
X2.6	Pearson Correlation	0.383
	Sig. (2-tailed)	0.001
	N	66.000
X2.7	Pearson Correlation	0.226
	Sig. (2-tailed)	0.073
	N	64.000
X2.8	Pearson Correlation	0.602
	Sig. (2-tailed)	0.000
	N	65.000
X2.9	Pearson Correlation	0.582
	Sig. (2-tailed)	0.000
	N	66.000
X2.10	Pearson Correlation	0.578
	Sig. (2-tailed)	0.000
	N	66.000
X2.11	Pearson Correlation	0.538
	Sig. (2-tailed)	0.000

	N	66.000
X2.12	Pearson Correlation	0.750
	Sig. (2-tailed)	0.000
	N	66.000
X2.13	Pearson Correlation	0.740
	Sig. (2-tailed)	0.000
	N	66.000
X2.14	Pearson Correlation	0.720
	Sig. (2-tailed)	0.000
	N	65.000
X2.15	Pearson Correlation	0.730
	Sig. (2-tailed)	0.000
	N	66.000
X2.16	Pearson Correlation	0.680
	Sig. (2-tailed)	0.000
	N	66.000
X2.17	Pearson Correlation	0.587
	Sig. (2-tailed)	0.000
	N	66.000
SUMCGP	Sig. (2-tailed)	1
	N	66

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Corporate Governance Practices

Correlations

		SUMCGPR
X3.1	Pearson Correlation	0.273
	Sig. (2-tailed)	0.029
	N	64.000
X3.2	Pearson Correlation	-0.101
	Sig. (2-tailed)	0.421
	N	66.000
X3.3	Pearson Correlation	0.067
	Sig. (2-tailed)	0.605
	N	62.000
X3.4	Pearson Correlation	0.034
	Sig. (2-tailed)	0.802
	N	57.000
X3.5	Pearson Correlation	0.358
	Sig. (2-tailed)	0.003
	N	66.000
X3.6	Pearson Correlation	0.424
	Sig. (2-tailed)	0.000
	N	65.000
X3.7	Pearson Correlation	0.278
	Sig. (2-tailed)	0.024

	N	66.000
X3.8	Pearson Correlation	0.456
	Sig. (2-tailed)	0.000
	N	66.000
X3.9	Pearson Correlation	0.442
	Sig. (2-tailed)	0.000
	N	65.000
X3.10	Pearson Correlation	0.460
	Sig. (2-tailed)	0.000
	N	66.000
X3.11	Pearson Correlation	0.363
	Sig. (2-tailed)	0.003
	N	66.000
X3.12	Pearson Correlation	0.546
	Sig. (2-tailed)	0.000
	N	65.000
X3.13	Pearson Correlation	0.232
	Sig. (2-tailed)	0.067
	N	63.000
X3.14	Pearson Correlation	0.591
	Sig. (2-tailed)	0.000
	N	66.000
X3.15	Pearson Correlation	0.576
	Sig. (2-tailed)	0.000
	N	66.000
X3.16	Pearson Correlation	0.591
	Sig. (2-tailed)	0.000
	N	65.000
X3.17	Pearson Correlation	0.665
	Sig. (2-tailed)	0.000
	N	65.000
X3.18	Pearson Correlation	0.470
	Sig. (2-tailed)	0.000
	N	65.000
X3.19	Pearson Correlation	0.351
	Sig. (2-tailed)	0.004
	N	66.000
X3.20	Pearson Correlation	0.444
	Sig. (2-tailed)	0.000
	N	64.000
X3.21	Pearson Correlation	0.650
	Sig. (2-tailed)	0.000
	N	66.000
X3.22	Pearson Correlation	0.453
	Sig. (2-tailed)	0.000
	N	66.000
X3.23	Pearson Correlation	0.416
	Sig. (2-tailed)	0.001
	N	66.000
X3.24	Pearson Correlation	0.663

	Sig. (2-tailed)	0.000
	N	66.000
X3.25	Pearson Correlation	0.447
	Sig. (2-tailed)	0.000
	N	66.000
X3.26	Pearson Correlation	0.627
	Sig. (2-tailed)	0.000
	N	66.000
X3.27	Pearson Correlation	0.190
	Sig. (2-tailed)	0.127
	N	66.000
X3.28	Pearson Correlation	0.453
	Sig. (2-tailed)	0.000
	N	66.000
X3.29	Pearson Correlation	0.452
	Sig. (2-tailed)	0.000
	N	66.000
X3.30	Pearson Correlation	0.182
	Sig. (2-tailed)	0.143
	N	66.000
X3.31	Pearson Correlation	0.214
	Sig. (2-tailed)	0.084
	N	66.000
X3.32	Pearson Correlation	0.598
	Sig. (2-tailed)	0.000
	N	66.000
X3.33	Pearson Correlation	0.561
	Sig. (2-tailed)	0.000
	N	66.000
X3.34	Pearson Correlation	0.555
	Sig. (2-tailed)	0.000
	N	65.000
X3.35	Pearson Correlation	0.463
	Sig. (2-tailed)	0.000
	N	66.000
X3.36	Pearson Correlation	0.474
	Sig. (2-tailed)	0.000
	N	65.000
X3.37	Pearson Correlation	0.456
	Sig. (2-tailed)	0.000
	N	66.000
X3.38	Pearson Correlation	0.414
	Sig. (2-tailed)	0.001
	N	66.000
X3.39	Pearson Correlation	0.489
	Sig. (2-tailed)	0.000
	N	66.000
X3.40	Pearson Correlation	0.300
	Sig. (2-tailed)	0.014
	N	66.000

X3.41	Pearson Correlation	0.565
	Sig. (2-tailed)	0.000
	N	66.000
SUMCGPR	Pearson Correlation	1.000
	Sig. (2-tailed)	
	N	66.000
**	Correlation is significant at the 0.01 level (2-tailed).	
*	Correlation is significant at the 0.05 level (2-tailed).	

Disclosures Policies and Practices

Correlations

		SUMDPP
X4.1	Pearson Correlation	0.644
	Sig. (2-tailed)	0.000
	N	66.000
X4.2	Pearson Correlation	0.519
	Sig. (2-tailed)	0.000
	N	66.000
X4.3	Pearson Correlation	0.210
	Sig. (2-tailed)	0.093
	N	65.000
X4.4	Pearson Correlation	0.297
	Sig. (2-tailed)	0.019
	N	62.000
X4.5	Pearson Correlation	0.421
	Sig. (2-tailed)	0.000
	N	66.000
X4.6	Pearson Correlation	0.332
	Sig. (2-tailed)	0.006
	N	66.000
X4.7	Pearson Correlation	0.640
	Sig. (2-tailed)	0.000
	N	66.000
X4.8	Pearson Correlation	0.601
	Sig. (2-tailed)	0.000
	N	65.000
X4.9	Pearson Correlation	0.524
	Sig. (2-tailed)	0.000
	N	66.000
X4.10	Pearson Correlation	0.350
	Sig. (2-tailed)	0.004
	N	66.000
X4.11	Pearson Correlation	0.659
	Sig. (2-tailed)	0.000
	N	66.000
X4.12	Pearson Correlation	0.767

	Sig. (2-tailed)	0.000
	N	64.000
X4.13	Pearson Correlation	0.761
	Sig. (2-tailed)	0.000
	N	66.000
X4.14	Pearson Correlation	0.736
	Sig. (2-tailed)	0.000
	N	65.000
X4.15	Pearson Correlation	0.776
	Sig. (2-tailed)	0.000
	N	66.000
X4.16	Pearson Correlation	0.735
	Sig. (2-tailed)	0.000
	N	66.000
X4.17	Pearson Correlation	0.647
	Sig. (2-tailed)	0.000
	N	65.000
X4.18	Pearson Correlation	0.643
	Sig. (2-tailed)	0.000
	N	65.000
SUMDPP	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	66.000
**	Correlation is significant at the 0.01 level (2-tailed).	
*	Correlation is significant at the 0.05 level (2-tailed).	

Audit

Correlations

		SUMAU
X5.1	Pearson Correlation	0.473
	Sig. (2-tailed)	0.000
	N	65.000
X5.2	Pearson Correlation	0.722
	Sig. (2-tailed)	0.000
	N	65.000
X5.3	Pearson Correlation	0.506
	Sig. (2-tailed)	0.000
	N	65.000
X5.4	Pearson Correlation	0.204
	Sig. (2-tailed)	0.105
	N	64.000
X5.5	Pearson Correlation	0.226
	Sig. (2-tailed)	0.077
	N	62.000
X5.6	Pearson Correlation	0.565
	Sig. (2-tailed)	0.000

	N	66.000
X5.7	Pearson Correlation	0.622
	Sig. (2-tailed)	0.000
	N	65.000
X5.8	Pearson Correlation	0.606
	Sig. (2-tailed)	0.000
	N	66.000
X5.9	Pearson Correlation	0.485
	Sig. (2-tailed)	0.000
	N	66.000
X5.10	Pearson Correlation	0.478
	Sig. (2-tailed)	0.000
	N	66.000
SUMAU	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	66.000
**	Correlation is significant at the 0.01 level (2-tailed).	
*	Correlation is significant at the 0.05 level (2-tailed).	

Bank Performance

Correlations

		SUMBP
BP1	Pearson Correlation	0.883
	Sig. (2-tailed)	0.000
	N	66.000
BP2	Pearson Correlation	0.894
	Sig. (2-tailed)	0.000
	N	66.000
BP3	Pearson Correlation	0.905
	Sig. (2-tailed)	0.000
	N	65.000
BP4	Pearson Correlation	0.891
	Sig. (2-tailed)	0.000
	N	65.000
SUMBP	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	66.000
**	Correlation is significant at the 0.01 level (2-tailed).	
*	Correlation is significant at the 0.05 level (2-tailed).	

Risk Management

Correlations

		SUMRM
RM1	Pearson Correlation	0.505
	Sig. (2-tailed)	0.000
	N	66.000
RM2	Pearson Correlation	0.637
	Sig. (2-tailed)	0.000
	N	66.000
RM3	Pearson Correlation	0.560
	Sig. (2-tailed)	0.000
	N	65.000
RM4	Pearson Correlation	0.159
	Sig. (2-tailed)	0.204
	N	65.000
RM5	Pearson Correlation	0.285
	Sig. (2-tailed)	0.020
	N	66.000
RM6	Pearson Correlation	0.590
	Sig. (2-tailed)	0.000
	N	66.000
RM7	Pearson Correlation	0.496
	Sig. (2-tailed)	0.000
	N	66.000
RM8	Pearson Correlation	0.619
	Sig. (2-tailed)	0.000
	N	66.000
RM9	Pearson Correlation	0.758
	Sig. (2-tailed)	0.000
	N	65.000
RM10	Pearson Correlation	0.434
	Sig. (2-tailed)	0.000
	N	65.000
RM11	Pearson Correlation	0.519
	Sig. (2-tailed)	0.000
	N	66.000
SUMRM	Pearson Correlation	1.000
	Sig. (2-tailed)	.
	N	66.000

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Reliability Analysis – Scale (Aplha)

Shareholders Right and Responsibility

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CG1.1	60.1918	88.1785	.4162	.8856
CG1.2	60.5264	84.2230	.5069	.8828
CG1.3	60.4481	84.5633	.4662	.8849
CG1.4	60.2289	85.9874	.5180	.8820
CG1.5	60.5728	86.4147	.4769	.8836
CG1.6	60.4745	84.2720	.5897	.8793
CG1.7	60.7462	82.6150	.5579	.8807
CG1.8	60.6619	83.6856	.5789	.8796
CG1.9	60.3259	84.8847	.6232	.8784
CG1.10	60.4893	82.2261	.6803	.8755
CG1.11	60.4297	84.7096	.6224	.8783
CG1.12	60.5724	86.4942	.4853	.8832
CG1.13	60.4923	85.2272	.5814	.8798
CG1.14	60.2190	86.4486	.5580	.8809
CG1.15	60.3584	83.6767	.6359	.8775
CG1.16	60.5866	86.0618	.4227	.8863

Reliability Coefficients

N of Cases = 4780.0 N of Items = 16

Alpha = .8878

Reliability Analysis – Scale (Aplha)

Corporate Governance Policies

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CG2.1	68.5123	56.6089	.6826	.8491
CG2.2	68.6985	58.8632	.2227	.8688
CG2.3	68.5561	55.3337	.6807	.8471
CG2.4	68.7987	58.6341	.3502	.8603
CG2.5	68.9113	55.4717	.5448	.8519
CG2.6	69.6833	57.5003	.2999	.8654
CG2.7	69.1732	59.9237	.1452	.8732
CG2.8	69.0273	55.9564	.6174	.8497
CG2.9	68.7729	56.9199	.5288	.8532
CG2.10	68.4154	57.9961	.5073	.8547
CG2.11	69.0030	56.8543	.3732	.8608
CG2.12	68.4641	56.8970	.7429	.8487
CG2.13	68.6080	56.0288	.7564	.8467
CG2.14	68.7013	54.8638	.6470	.8476
CG2.15	68.6842	55.1349	.6266	.8486
CG2.16	68.5532	56.1368	.6702	.8486
CG2.17	69.1619	52.2422	.5008	.8574

Reliability Coefficients

N of Cases = 4620.0 N of Items = 17

Alpha = .8623

Reliability Analysis – Scale (Aplha)

Corporate Governance Practices

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CG3.1	145.3755	414.0266	.2283	.8912
CG3.5	146.0644	403.3202	.3143	.8904
CG3.6	146.2016	398.2980	.3816	.8893
CG3.7	145.5670	410.6815	.1899	.8922
CG3.8	146.1619	396.4217	.4388	.8883
CG3.9	146.3973	395.5526	.4454	.8882
CG3.10	145.5508	399.8983	.5766	.8871
CG3.11	145.2914	409.8458	.3660	.8899
CG3.12	145.9940	385.7933	.6566	.8844
CG3.13	146.6853	401.6111	.2976	.8910
CG3.14	146.2167	382.2852	.6724	.8838
CG3.15	146.3135	384.8519	.6192	.8848
CG3.16	146.3937	388.6359	.6383	.8850
CG3.17	146.3420	386.4320	.6890	.8841
CG3.18	146.2268	400.0916	.3956	.8890
CG3.19	146.1291	408.0013	.2504	.8912
CG3.20	146.0225	396.0809	.4210	.8886
CG3.21	145.6272	390.9845	.6803	.8849
CG3.22	145.9672	399.5872	.4419	.8883
CG3.23	146.1664	395.7368	.4150	.8888
CG3.24	146.0127	383.6767	.6993	.8836
CG3.25	146.4914	393.7010	.4414	.8883
CG3.26	145.6176	400.4451	.6614	.8868
CG3.27	145.1152	404.8924	.0303	.9165
CG3.28	145.9076	403.5503	.4281	.8888
CG3.29	145.8087	407.7193	.4092	.8894
CG3.30	145.5591	415.0413	.1494	.8921
CG3.31	145.5793	414.0708	.1918	.8916
CG3.32	145.4799	401.7601	.6083	.8873
CG3.33	145.5896	404.6186	.5226	.8883
CG3.34	145.4217	407.2298	.5155	.8888
CG3.35	145.3927	407.3265	.4830	.8889
CG3.36	145.5790	404.0014	.5117	.8882
CG3.37	146.2641	399.4615	.4769	.8879
CG3.38	146.3731	399.9992	.4558	.8882
CG3.39	145.9476	401.1735	.4955	.8879
CG3.40	146.1329	407.3431	.3207	.8901
CG3.41	145.7708	396.4838	.5867	.8865

Reliability Coefficients

N of Cases = 4176.0 N of Items = 38

Alpha = .8916

Reliability Analysis – Scale (Aplha)

Disclosures Policies and Practices

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CG4.1	65.4716	99.3623	.5903	.8692
CG4.2	65.4889	102.2991	.4448	.8739
CG4.3	66.0259	107.6130	.0657	.8888
CG4.4	66.4347	106.1034	.1592	.8838
CG4.5	65.9779	100.7934	.3999	.8756
CG4.6	65.7027	105.4809	.2470	.8797
CG4.7	65.2357	101.9627	.5836	.8709
CG4.8	65.8062	99.4864	.5554	.8701
CG4.9	65.5221	102.6805	.4665	.8734
CG4.10	65.0812	106.0951	.2230	.8802
CG4.11	66.3585	92.9386	.6030	.8678
CG4.12	66.0721	93.3880	.7298	.8623
CG4.13	65.4629	96.7042	.7001	.8650
CG4.14	66.1017	91.2654	.6790	.8639
CG4.15	65.6692	94.9577	.7480	.8627
CG4.16	66.2052	90.0362	.7253	.8616
CG4.17	66.4675	94.6481	.5930	.8680
CG4.18	65.9274	99.0293	.5630	.8697

Reliability Coefficients

N of Cases = 4396.0 N of Items = 18

Alpha = .8781

Reliability Analysis – Scale (Aplha)

Audit

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CG5.1	27.1742	20.6158	.4555	.8272
CG5.3	26.9530	20.5543	.5766	.8156
CG5.5	28.3396	20.2993	.1967	.8934
CG5.6	26.9683	17.9699	.7790	.7856
CG5.7	27.0200	17.9193	.7332	.7905
CG5.8	27.3613	18.1142	.7139	.7935
CG5.9	26.7785	19.6585	.7236	.8003
CG5.10	26.7790	19.5052	.6994	.8011

Reliability Coefficients

N of Cases = 4511.0 N of Items = 8

Alpha = .8339

Reliability Analysis – Scale (Aplha)

Bank Performance

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
BP1	10.8350	6.2825	.8199	.9024
BP2	10.8712	6.1159	.8373	.8964
BP3	11.1164	6.1281	.8323	.8981
BP4	11.1436	6.2454	.8046	.9074

Reliability Coefficients

N of Cases = 4922.0 N of Items = 4

Alpha = .9240

Reliability Analysis – Scale (Aplha)

Risk Management

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
CAPR1	34.9103	25.3256	.3329	.7612
CAPR2	34.8197	24.1532	.5310	.7369
CAPR3	34.2309	27.3646	.2181	.7707
DIVERS1	35.5777	22.8210	.4164	.7547
DIVERS2	34.4704	23.9888	.5238	.7370
DIVERS3	34.1667	25.9937	.4255	.7521
DIVERS4	36.1849	21.9043	.4890	.7423
RELI1	35.0468	21.0129	.7183	.7029
RELI2	34.7662	25.8576	.3296	.7607
RELI3	35.1164	25.0554	.3774	.7554

Reliability Coefficients

N of Cases = 4847.0 N of Items = 10

Alpha = .7678

APPENDIX A4

Share Holder Right and Responsibility (SRR)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.762
Bartlett's Test of Sphericity	Approx. Chi-Square	59848.48
	df	120
	Sig.	0.000

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.139	38.369	38.369	3.502	21.890	21.890
2	2.498	15.610	53.979	3.454	21.589	43.479
3	1.912	11.952	65.932	2.730	17.061	60.540
4	1.031	6.441	72.373	1.893	11.833	72.373
5	0.926	5.791	78.163			
6	0.734	4.588	82.751			
7	0.688	4.298	87.049			
8	0.475	2.970	90.019			
9	0.345	2.159	92.178			
10	0.326	2.036	94.214			
11	0.292	1.827	96.041			
12	0.238	1.488	97.530			
13	0.156	0.977	98.507			
14	0.111	0.693	99.200			
15	0.077	0.482	99.681			
16	0.051	0.319	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component			
	1	2	3	4
SRR_13	0.714			
SRR_12	0.707			
SRR_10	0.701			
SRR_11	0.688			
SRR_9	0.685			
SRR_4	0.680			
SRR_5				
SRR_7		0.936		
SRR_8		0.874		
SRR_6		0.694		
SRR_16		0.619		
SRR_1			0.812	
SRR_3			0.774	
SRR_2			0.772	
SRR_14				0.832
SRR_15				0.804

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 13 iterations.

Component Score Coefficient Matrix

	Component			
	1	2	3	4
SRR_1	-0.066	0.045	0.337	-0.079
SRR_2	-0.033	-0.001	0.286	0.023
SRR_3	-0.009	0.009	0.304	-0.060
SRR_4	0.237	-0.020	0.114	-0.199
SRR_5	0.194	-0.061	0.186	-0.160
SRR_6	-0.021	0.221	0.033	-0.046
SRR_7	-0.113	0.367	0.073	-0.167
SRR_8	-0.043	0.333	0.057	-0.204
SRR_9	0.196	0.089	-0.166	0.010
SRR_10	0.192	0.079	-0.160	0.047
SRR_11	0.191	0.060	-0.188	0.088
SRR_12	0.254	-0.108	0.039	-0.051
SRR_13	0.228	-0.112	0.049	0.037
SRR_14	-0.057	-0.133	-0.051	0.580
SRR_15	-0.059	-0.076	-0.054	0.532
SRR_16	-0.205	0.197	0.043	0.189

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Corporate Governance Policies (CGPO)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.799
Bartlett's Test of Sphericity	Approx. Chi-Square	52953.67
	df	136
	Sig.	0.000

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.647	39.097	39.097	4.553	26.783	26.783
2	2.092	12.306	51.404	2.627	15.452	42.236
3	1.935	11.381	62.785	2.053	12.078	54.314
4	1.092	6.425	69.211	1.785	10.500	64.814
5	1.020	6.000	75.210	1.767	10.396	75.210
6	0.767	4.510	79.720			
7	0.586	3.448	83.168			
8	0.523	3.076	86.244			
9	0.456	2.680	88.924			
10	0.387	2.275	91.199			
11	0.347	2.039	93.239			
12	0.295	1.733	94.972			
13	0.247	1.452	96.424			
14	0.219	1.286	97.710			
15	0.156	0.917	98.627			
16	0.130	0.763	99.390			
17	0.104	0.610	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component				
	1	2	3	4	5
CGPO_14	0.855				
CGPO_3	0.813				
CGPO_16	0.786				
CGPO_13	0.734				
CGPO_1	0.709				
CGPO_12	0.682				
CGPO_15	0.678				
CGPO_4		0.855			
CGPO_8		0.743			
CGPO_5		0.742			
CGPO_11			0.799		
CGPO_17			0.743		
CGPO_6			0.695		
CGPO_7				0.913	
CGPO_2				0.848	

CGPO_9	0.718
CGPO_10	0.707

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	0.771	0.398	0.324	0.116	0.359
2	0.183	-0.011	-0.583	0.784	-0.109
3	-0.390	0.884	-0.233	-0.058	0.087
4	-0.437	0.001	0.646	0.604	0.159
5	0.169	0.244	0.289	0.052	-0.909

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
CGPO_1	0.195	0.106	0.013	0.085	-0.267
CGPO_2	0.065	-0.046	0.021	0.471	-0.151
CGPO_3	0.252	0.061	-0.109	-0.001	-0.180
CGPO_4	0.005	0.406	-0.130	-0.035	-0.163
CGPO_5	-0.078	0.288	-0.017	-0.024	0.127
CGPO_6	-0.103	0.261	0.445	-0.027	-0.320
CGPO_7	-0.186	0.023	0.126	0.584	0.126
CGPO_8	-0.045	0.300	0.011	0.032	0.007
CGPO_9	-0.161	0.113	-0.033	0.002	0.500
CGPO_10	-0.021	-0.105	-0.085	-0.020	0.506
CGPO_11	-0.044	-0.111	0.451	0.011	-0.008
CGPO_12	0.102	-0.076	0.031	0.033	0.175
CGPO_13	0.147	-0.049	-0.006	-0.025	0.106
CGPO_14	0.293	-0.053	-0.070	-0.123	-0.151
CGPO_15	0.165	-0.089	0.052	-0.116	0.039
CGPO_16	0.222	-0.050	-0.124	-0.055	0.036
CGPO_17	-0.079	-0.071	0.437	0.164	0.042

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Corporate Governance Practices (CGPR)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.626
Bartlett's Test of Sphericity	Approx. Chi-Square	212565
	df	703
	Sig.	0.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.268	24.389	24.389	9.268	24.389	24.389
2	6.985	18.381	42.771			
3	3.735	9.828	52.599			
4	2.270	5.973	58.572			
5	1.948	5.126	63.698			
6	1.747	4.599	68.296			
7	1.416	3.727	72.023			
8	1.196	3.147	75.170			
9	1.074	2.827	77.997			
10	0.962	2.531	80.529			
11	0.821	2.161	82.690			
12	0.771	2.029	84.720			
13	0.695	1.828	86.548			
14	0.618	1.626	88.174			
15	0.548	1.441	89.615			
16	0.515	1.354	90.970			
17	0.431	1.135	92.104			
18	0.408	1.073	93.177			
19	0.331	0.872	94.049			
20	0.314	0.826	94.875			
21	0.290	0.762	95.637			
22	0.252	0.663	96.300			
23	0.204	0.537	96.837			
24	0.196	0.516	97.353			
25	0.173	0.455	97.809			
26	0.137	0.360	98.168			
27	0.125	0.330	98.498			
28	0.110	0.290	98.788			
29	0.099	0.261	99.049			
30	0.072	0.190	99.240			
31	0.067	0.175	99.415			
32	0.057	0.151	99.566			
33	0.054	0.141	99.707			
34	0.043	0.113	99.820			
35	0.034	0.090	99.910			
36	0.015	0.039	99.949			
37	0.014	0.037	99.986			
38	0.005	0.014	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
CGPR_24	0.725
CGPR_26	0.703
CGPR_17	0.701
CGPR_21	0.697
CGPR_14	0.654
CGPR_32	0.640
CGPR_41	0.636
CGPR_15	0.626
CGPR_12	0.620
CGPR_33	0.610
CGPR_16	0.607
CGPR_35	
CGPR_34	
CGPR_10	
CGPR_11	
CGPR_36	
CGPR_8	
CGPR_28	
CGPR_25	
CGPR_9	
CGPR_39	
CGPR_22	
CGPR_29	
CGPR_37	
CGPR_18	
CGPR_23	
CGPR_20	
CGPR_6	
CGPR_38	
CGPR_5	
CGPR_13	
CGPR_1	
CGPR_40	
CGPR_19	
CGPR_7	
CGPR_31	
CGPR_30	
CGPR_27	

Component Score Coefficient Matrix

	Component
	1
CGPR_1	0.031
CGPR_5	0.034

CGPR_6	0.041
CGPR_7	0.027
CGPR_8	0.054
CGPR_9	0.052
CGPR_10	0.059
CGPR_11	0.055
CGPR_12	0.067
CGPR_13	0.032
CGPR_14	0.071
CGPR_15	0.068
CGPR_16	0.066
CGPR_17	0.076
CGPR_18	0.045
CGPR_19	0.029
CGPR_20	0.041
CGPR_21	0.075
CGPR_22	0.049
CGPR_23	0.043
CGPR_24	0.078
CGPR_25	0.052
CGPR_26	0.076
CGPR_27	0.003
CGPR_28	0.053
CGPR_29	0.047
CGPR_30	0.018
CGPR_31	0.024
CGPR_32	0.069
CGPR_33	0.066
CGPR_34	0.059
CGPR_35	0.064
CGPR_36	0.055
CGPR_37	0.045
CGPR_38	0.039
CGPR_39	0.050
CGPR_40	0.029
CGPR_41	0.069

Extraction Method: Principal Component Analysis.
Component Scores.

Disclosure Policies and Practices (DPP)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.727
Bartlett's Test of Sphericity	Approx. Chi-Square	54106.69
	df	153
	Sig.	0

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.515	36.196	36.196	4.889	27.161	27.161
2	2.273	12.628	48.824	3.235	17.970	45.131
3	1.606	8.923	57.747	1.949	10.829	55.960
4	1.346	7.479	65.226	1.668	9.266	65.226
5	1.118	6.212	71.438			
6	0.935	5.194	76.632			
7	0.842	4.678	81.310			
8	0.707	3.926	85.237			
9	0.529	2.942	88.178			
10	0.461	2.563	90.741			
11	0.357	1.984	92.725			
12	0.322	1.790	94.515			
13	0.270	1.501	96.016			
14	0.216	1.198	97.214			
15	0.176	0.980	98.194			
16	0.139	0.775	98.968			
17	0.100	0.558	99.526			
18	0.085	0.474	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component			
	1	2	3	4
DPP_14	0.894			
DPP_16	0.860			
DPP_17	0.814			
DPP_12	0.803			
DPP_11	0.762			
DPP_15	0.702			
DPP_13	0.657			
DPP_6		0.848		
DPP_9		0.770		
DPP_7		0.648		
DPP_8				
DPP_1				
DPP_10			0.779	
DPP_5			0.624	
DPP_18				

DPP_4	-0.730
DPP_2	0.625
DPP_3	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 9 iterations.

Component Score Coefficient Matrix

	Component			
	1	2	3	4
DPP_1	-0.037	0.106	0.157	0.254
DPP_2	-0.044	0.175	-0.047	0.363
DPP_3	0.032	0.034	-0.160	0.267
DPP_4	0.072	0.125	-0.099	-0.467
DPP_5	-0.054	0.000	0.365	-0.135
DPP_6	-0.071	0.376	-0.180	-0.238
DPP_7	-0.044	0.180	0.149	-0.058
DPP_8	-0.009	0.163	0.055	0.035
DPP_9	-0.066	0.286	-0.066	0.082
DPP_10	-0.075	-0.130	0.511	0.040
DPP_11	0.185	0.015	-0.196	0.146
DPP_12	0.189	0.046	-0.135	-0.081
DPP_13	0.127	0.058	-0.024	-0.074
DPP_14	0.227	-0.115	-0.013	-0.020
DPP_15	0.129	0.048	-0.026	0.052
DPP_16	0.205	-0.098	0.028	-0.034
DPP_17	0.205	-0.147	0.062	-0.040
DPP_18	0.026	-0.017	0.285	-0.067

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Audit (AUD)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.752
Bartlett's Test of Sphericity	Approx. Chi-Square	30755.76
	df	28
	Sig.	0.000

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.295	53.693	53.693	3.458	43.222	43.222
2	1.160	14.501	68.194	1.998	24.972	68.194
3	0.879	10.990	79.184			
4	0.827	10.343	89.527			
5	0.384	4.806	94.333			
6	0.297	3.707	98.040			
7	0.135	1.689	99.729			
8	0.022	0.271	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component	
	1	2
AUD_9	0.841	
AUD_10	0.831	
AUD_1	0.781	
AUD_3	0.711	
AUD_8	0.619	
AUD_5		0.746
AUD_6		0.728
AUD_7		0.704

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.

Component Score Coefficient Matrix

	Component	
	1	2
AUD_1	0.330	-0.259
AUD_3	0.244	-0.095
AUD_5	-0.276	0.565
AUD_6	0.007	0.360
AUD_7	0.008	0.346
AUD_8	0.101	0.195
AUD_9	0.273	-0.074
AUD_10	0.268	-0.068

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Capital Risk (CAPR)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.542
Bartlett's Test of Sphericity	Approx. Chi-Square	3344.764
	df	3
	Sig.	0.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.794	59.815	59.815	1.794	59.815	59.815
2	0.882	29.4	89.216			
3	0.324	10.784	100			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
CAPR_1	0.869
CAPR_2	0.894
CAPR_3	0.490

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Component Score Coefficient Matrix

	Component
	1
CAPR_1	0.484
CAPR_2	0.498
CAPR_3	0.273

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Diversification Risk (DIVER)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.655
Bartlett's Test of Sphericity	Approx. Chi-Square	3069.669
	df	6
	Sig.	0.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.990	49.757	49.757	1.990	49.757	49.757
2	0.826	20.656	70.413			
3	0.747	18.685	89.098			
4	0.436	10.902	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
DIVER_2	0.805
DIVER_3	0.767
DIVER_1	0.651
DIVER_4	

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Component Score Coefficient Matrix

	Component
	1
DIVER_1	0.327
DIVER_2	0.404
DIVER_3	0.385
DIVER_4	0.289

Extraction Method: Principal Component Analysis.

Reliability Risk (RELI)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.574
Bartlett's Test of Sphericity	Approx. Chi-Square	1795.821
	df	3
	Sig.	0.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.677	55.895	55.895	1.677	55.895	55.895
2	0.816	27.187	83.082			
3	0.508	16.918	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
RELI_1	0.839
RELI_2	0.735
RELI_3	0.658

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Component Score Coefficient Matrix

	Component
	1
RELI_1	0.500
RELI_2	0.438
RELI_3	0.392

Extraction Method: Principal Component Analysis.

Component Scores.

APPENDIX A5

Variable	Coef	t		Coef	t		Coef	t	
constant	0.009	1.202		0.739	9.250	***	0.630	19.059	***
sfcg11	-0.078	-5.679	***						
sfcg12	0.143	13.459	***						
sfcg13	0.140	11.942	***						
sfcg14	0.057	6.481	***						
sfcg31	-0.013	-0.951							
sfcg32	0.229	23.173	***						
sfcg33	0.155	16.061	***						
sfcg34	0.365	36.971	***						
sfcg35	0.054	5.178	***						
sfcg36	0.072	8.550	***						
sfcg37	0.138	16.102	***						
sfcg41	0.084	6.665	***						
sfcg42	0.359	27.822	***						
sfcg43	0.229	25.489	***						
sfcg44	0.030	2.859	***						
sfcg51	0.098	10.497	***						
sfcg52	-0.010	-1.055							
constant									
bp1				-0.238	-12.942	***			
divrisk				0.099	6.269	***			
relirisk				0.091	6.003	***			
sfcg2				0.487	24.733	***	0.080	7.999	***
d1*sfcg2				-0.279	-9.001	***	-0.065	-4.366	***
d2*sfcg2				0.165	5.845	***	0.010	0.779	
d1				0.612	17.074	***	-0.005	-0.317	
d2				0.221	6.926	***	-0.111	-7.936	***
sfcapr							-0.283	-31.066	***
bp2							0.617	63.407	***
bp3							0.641	62.291	***
bp4							-0.389	-34.384	***
	0.749			0.334			0.815		
	0.748			0.333			0.815		

Constant	0.005	0.593		0.936	11.816	***	1.054	25.189	***
sfcg1	0.052	9.510	***						
sfcg3	0.162	38.482	***						
sfcg4	0.194	31.000	***						
sfcg5	-0.001	-0.190							
bp1				-0.285	-15.590	***			
sfdiv,sfreli				0.116	15.131	***			
sfcg2				0.476	24.390	***	0.052	4.061	***
d1*sfcg2				-0.293	-9.450	***	0.146	7.918	***
d2*sfcg2				0.147	5.248	***	0.105	6.385	***
d1				0.625	18.386	***	-0.078	-3.741	***
d2				0.162	5.106	***	-0.249	-13.980	***
sfcapr							-0.263	-22.294	***
bp2,3,4							0.265	76.708	***
	0.608			0.335			0.700		
	0.608			0.334			0.700		