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Master's Thesis of Economics

Corporate Governance and Firm Performance

-Evidence from Two-Tier Board Structure Country-

기업지배 및 회사성과

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ABSTRACT

Corporate Governance and Firm Performance

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Board characteristics and transparency have always played an essential role in corporate governance. Some previous studies have tried to investigate their significance in countries adopting one-tier board structure, but less attention has been given to countries which are adopting two-tier board structure. This study tries to address such issue by investigating the correlation between board characteristics and transparency on firm performance in Indonesia, a country adopting two-tier board structure. Further, this study also tries to investigate the relationship between board characteristic and transparency, which has not been covered much by prior studies.

Previous corporate governance-related studies mostly considered static model and estimate it using OLS or fixed-effect, which probably one of the reason most of them have inconclusive results. However, current study highlights the importance of considering a dynamic model to characterize corporate governance and performance relationship. This study also estimates the dynamic model using Generalised Method of Moments (GMM), as it addresses endogeneity and simultaneity issues existed in the dynamic model, which cannot be addressed by OLS or fixed-effect method.

Using data from listed companies in Indonesia, this study found that there is no robust evidence that board characteristics has correlation to firm performance and transparency, which is probably due to the lack of government enforcement regarding the power of Board of Commissioner and transparency in Indonesia, the practice of choosing independent commissioner in Indonesia, independent commissioner remuneration issue in Indonesia and nature of Indonesia as a civil country. On the other hand, transparency surprisingly has a negative correlation to market valuation, which may indicate that listed companies in Indonesia with low firm value tend to have more incentive to adhere to transparency regulation. Transparency also has no correlation to accounting valuation, which indicates that listed companies in Indonesia may adhere to transparency regulations just to fulfill a certain standard of obligation.

Keywords: Corporate Governance, Firm Performance, GMM, Board Characteristics, Transparency, Two-Tier Board Structure

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CHAPTER 1. INTRODUCTION

1.1. Corporate Governance: Overall Review

One of the most interesting questions concerning Corporate Governance is if it does actually matter. Does it really have a relationship with company's performance? Or is it just a cost of doing business? When a company tried to find external financing from the capital market, it has to fulfill certain kind of investor expectation, and the implementation cost which has to be expensed sometimes will exceed the benefit and decrease the earnings. In that case, corporate governance seems just like another additional cost of doing business (Gupta, Kennedy, & W., 2006).

However, most investors consider corporate governance as important or more important than financial indicators when making investment decisions. A significant majority of institutional investors also say that they are willing to pay a premium for a well-governed company (McKinsey, 2003).

Arthur Levitt also emphasizes the relationship between good corporate governance, transparency and disclosure, and economic growth. He said that if a country does not have a reputation for strong corporate governance practices and if investors are not confident with the level of disclosure, capital will flow elsewhere. All enterprises in that country – regardless of how steadfast a particular company's practices may be – suffer the consequences (Mallin, 2002).

This paper tries to highlight some of the corporate governance mechanisms which attract research interest around the world: board characteristics and transparency, which will differ according to the type of board structure adopted by the country.

1.1.1. Board Structure all over the World

Corporate governance can be defined merely as the structures and processes for the direction and control of companies (World Bank, 2014). And one of the most important corporate governance mechanism which allows for such direction and control is the companies' board. Hence, the impact of corporate governance on firm performance can also be further distinguished based on how the board is running the companies. Companies' board, which performs all actions, policies, practices, and decisions of corporations, has attracted many research interests in both developed and emerging markets. It also varies both within and among countries.

There are different types of the national board which are applicable around the world:

- a. One-tier board structure, which consists of only Board of Directors
- b. Two-tier board structure, which consists of Board of Directors and Board of Commissioner
- c. Optional for one-tier or two-tier board structure, where the government allow the companies to choose between one-tier board structure or two-tier board structure
- d. Hybrid Multiple Options where the board consists of Board of Directors, Board of Commissioner and Statutory Audit Board.

The most common board structure is one-tier (applied in 19 jurisdictions), while more and more jurisdictions allow both one and two-tier structures (12 jurisdictions), which is consistent with European Union (EU) regulation for European public limited-liability companies (OECD, 2017a).

Table 1-1. Board Structure all over the World

One-Tier Structure	Two-Tier Structure	Optional for One-Tier and Two-Tier Structure	Multiple Option with Hybrid Structure	
Australia	Korea	Argentina	Brazil	Italy
Belgium	Mexico	Austria	Czech Republic	Japan
Canada		China	Denmark	Portugal

One-Tier Structure	Two-Tier Structure	Optional for One-Tier and Two-Tier Structure	Multiple Option with Hybrid Structure
Chile	Saudi Arabia	Estonia	Finland
Colombia	Singapore	Germany	France
Greece	Spain	Indonesia	Hungary
Hong Kong,	Sweden	Latvia	Luxembourg
China	Turkey	Poland	Netherlands
Iceland	United Kingdom	Russia	Norway
Ireland	United States	South Africa	Slovenia
Israel			Slovak Republic
			Switzerland
			European Public
			LLC

Source: OECD Corporate Governance Factbook 2017 (OECD, 2017a)

1.1.2. One-Tier vs. Two-Tier Board Structure: Which One is Better?

Based on information provided in Table 1-1, where more countries are adopting the one-tier system, questions arise regarding the effectivity of each system. Do the many followers owned by one-tier board structure justify it as a better system than the two-tier system?

To justify the significance of each board structure, we have to observe several things further such as the reason of a country to choose their national board structure and the effectivity of its application afterward. But first, we have to know the difference between each board structure and understand why board structure other than one-tier board structure existed.

1.1.2.1. The Difference between One-Tier Board Structure and Two-Tier Board Structure

Nakamura (2008) has summarized the difference between one-tier and two-tier board structure as follow:

1. One-tier board structure was originated from Anglo-Saxon model, which has several characteristics as follow:
 - a. Corporate shares are widely held. Hence investors have little influence on corporate operation and management.
 - b. External directors (independent directors) play an essential role on the BoD and become a crucial part of corporate monitoring.
 - c. There is freedom of employment. Employees are connected to the company through employment contracts and have little influence on corporate governance.
 - d. There is a developed securities market. If the company performs poorly, the shareholders' response is to sell their shares. Mergers and acquisitions (M&A) based on market pressures are very common.
 - e. There is a reasonably sound legal system in terms of mandatory information disclosure, control of insider trade, and protection of minority shareholders.

2. On the other hand, two-tier board structure was originated from continental Europe, with Germany as one of the pioneers. It has several characteristics as follow:
 - a. Shares are concentrated into a few significant shareholders who exercise their power as the controlling shareholders' block when the corporations face critical issues. Often the views of the minority shareholders are ignored.
 - b. Banks are shareholders. Banks hold a significant number of stakes in listed companies, and also function as a watchdog for individual shareholders and execute their voting rights.
 - c. There is a board of directors and a board of supervisors. The supervisory board in Germany even functions as the real decision-making body in the corporation.
 - d. Employees are involved in corporate management.

e. External markets, especially markets for corporate control, have little effect in monitoring a firm's management.

A primary feature of the Anglo-Saxon model is the "check and balance" of corporate operators through the external forces, such as merger and acquisitions, the appointment of independent directors and other laws and regulations. While the main feature of the German model is internal control (Nakamura, 2008).

One of the advantages of the two-tier board structure is the separation of control and management while the disadvantages are coming from structural weakness problem. Structural weakness problem is the fact the supervisory board will tend to be reactive instead of active since they are not included in the decision-making process (Jungmann, 2006).

On the other hand, the advantage of one-tier board structure is that there is only one board which leads and controls the company. All members have direct access to the same information and are involved in decision-making process. But the disadvantage is that there will be a dilemma between decisions making and monitoring activity (Jungmann, 2006).

But however, regardless of which system a country will adopt, there will always be a tradeoff between efficiency and control. When agency problem and conflict of interest is high, it is beneficial for a country to adopt the two-tier system. In this case, tight control could tie managers' hands and render business operations and decision-making inefficient. While when agency problem and conflict of interest is low, a country may adopt a one-tier system which is pro-management oriented and allow for better inefficiency compared to the two-tier system (World Bank, 2014)

1.1.2.2. The Theory behind Two-Tier Board Structure

The theory underlying the two-tier system with codetermination is corporatism, where labor and management operate best together cooperatively. Corporatism is related to Ordo-liberalism, where natural monopoly is inevitable due

to significant concentrations of corporate power. Here, the government's role is to mediate labor-capital conflicts. Corporatism became central to French and German understandings of political economy, but model never really took root in U.S. law. Maybe because the United States has long been fixating more on maximizing shareholder wealth, which is slightly different with maximizing the labor and management relationship, in order to maximize the production and attain social well being (Engle & Danyliuk, 2015). We may also note that in the two-tier board structure there is a stakeholder orientation because all groups have a position on the supervisory board.

However, it is still possible to emulate a two-tier system with codetermination model, into the common-law system by using articles of incorporation, by-laws, and contractual agreements. One of the proposed solutions is the formation of co-operatives, which is voluntary associations, democratically organized on a stakeholder model with primary purpose not to obtain profit but to provide necessities of living. Since it is meant to provide necessities, not profit, co-operative US are tax-transparent pass-through entities with no tax liabilities. Unfortunately, US cooperatives in practice are limited to agriculture, housing, and credit unions. However, one can still use limited liability partnership to gain the same advantage as co-operatives in other aspects (Engle & Danyliuk, 2015; O'Connor, 1991).

1.1.2.3. The Reason behind the Practice of Two-Tier Board Structure across Countries

If we trace back on what reason constitutes the government decision on choosing between one-tier or two-tier board structure, as a national board-structure, which will determine whether or not a country will own supervisory board, there will be different reasons across countries. A brief review of such reason can be seen below:

Germany

For Germany, it is interesting to know the reason why the country requires the companies to apply two-tier board structure, as the international trend in the European Union is toward giving an option to choose between either one-tier or two-tier structure. This requirement has been documented in the German Stock Corporation Act of 1965, which declares the mandatory for all German stock corporations or public limited company (Aktiengesellschaften/AG) to have two-tier board system. While on the other hand, the Council of European Union declares the flexibility for European Company or public company registered in accordance with the corporate law of the European Union (Societas Europaea/SE) to have either one-tier or two-tier board system (Jungmann, 2006).

In fact, European regulators also have allowed SE to choose between one-tier or two-tier structure, which means there is flexibility for example for each Germany company to change their system to a less codetermined, smaller one-tier board. However, in the twelve years of its existence, only five of the one hundred biggest Germany companies chose the form of an SE in 2012, and all those five companies chose a two-tier system (Block & Gerstner, 2016).

This is maybe due to the fact that national board systems in Germany is highly path-dependants and also due to the existence of the labor-codetermination in the supervisory board. Labor-codetermination act which has been applied in Germany since 1976 is extensively regulated in a way that it allows for negotiation flexibility between labor and capital. While another country like the United Kingdom, which never knew such act, free to use one-tier board systems (Nakamura, 2008).

France

France started their corporate governance reforms since the reform of French corporate law in 1966. Prior to this legislation companies could only choose a one-

tier board structure. But since the 1966 reform, companies were allowed to choose between one-tier or two-tier board structure. The reason behind this reform is due to the belief that the separation of management and control would result in better-managed companies and greater competitiveness by French firms in domestic and international markets. The government also perceived this adoption of the German-style two-tier system as an effort towards European unification. The option to choose either one-tier or two-tier board also represent the reform goal of making the board structure more flexible. This is also the reason why French did not make the two-tier board mandatory since they value the importance of flexibility (Aste, 1999).

However, there are various reasons why companies finally decide to adopt each of this option, but it has been indicated that companies tend to adopt a two-tier structure for non-economic reasons. The example of those non-economic reasons is when a director who has much knowledge about the company resigns, but the company still want to keep him, or when there is a new generation of directors, but the older directors still doubt the new directors ability and would like to retain their supervisory ability, or if, during merger and acquisition process, each president of directors of the merging companies want to fill in the leadership position (Aste, 1999).

Netherlands

The Netherlands has applied this two-tier board structure for more than 400 years. The main reason why Dutch companies choose two-tier board structure is that it is part of the culture. They are used to it. They cannot abruptly change their board system into one-tier overnight. However, there are two interesting points which may be taken into consideration, which are the role of the supervisory board and the national board structure applied by the Netherlands over the years.

Initially, the role of the supervisory board in the Netherlands is to check and support the management, but without reporting it to shareholders. This has been done

since the 17th century, where most companies ask for outsiders to perform this function. Nowadays, supervisory board has different powers depending on the type of 'regime' of companies, which are common regime or structure regime. Common regime companies are small and medium-sized corporations that have issued shares, while structure regime companies are companies with more than €16 million equity (paid-up capital plus reserves), with at least a hundred employees and a work council that has been active in its group of companies for more than three years (Maassen & Van Den Bosch, 1999).

In common regime companies, shareholders meeting has extensive powers. It can nominate and appoints directors, amend an article of association and appoint, suspends and dismiss at least two-thirds of the supervisory board. But in structure regime companies, there is a substantial right transfer from shareholders meeting to the supervisory board, which makes the role of the supervisory board in structure regime companies is more potent than in the common regime companies. They can appoints, suspends and dismisses the management board and can veto all crucial decisions of management. The supervisory board can also nominate their successors, but only shareholders meeting which can appoint and dismiss the supervisory directors. Works council can pre-nominate one-third of the nominations, but shareholders have the right to refuse or follow the nomination.

Currently, companies other than structure regime companies are allowed to have one tier board system. But however, the Dutch government think it is important to release a one-tier board act, which was finally legalized since the amendment to Book 2 Dutch Civil Code in 2014 (van Bekkum, Hijink, Schouten, & Winter, 2009). The main reason is to allow for the flexible law for foreign shareholders, since more than seventy percent of Dutch listed companies are foreigners, and most of them prefer one-tier board structure than two-tier board structure (Calkoen, 2011). Therefore, now the Netherlands has the flexibility to either apply one-tier board structure or two-tier board structure.

Before this act, even though one-tier board system was already applicable, it was not a really popular choice, considering there were only several companies applying one tier board which are listed in the Euronext. In 2003, there were only seven one-tier board companies listed on Euronext (some are foreign companies), while in 2008 there were additional three one-tier board companies, but all those three companies are foreign companies.

China

China chose the two-tier board structure for their state-owned enterprise in 1994 as they try to fuse the interest of the labor and capital, just like what German does through the German co-determination model. However, it was not a complete adoption of the German two-tier board as the supervisory board in the German joint stock companies (the AG) has equal numbers of shareholders and employee representatives, while the employee representatives in a Chinese joint stock company must not be fewer than one-third of the supervisory board. Further, the supervisory board in the German model is more powerful than the Chinese supervisory board even after the 2005 amendment to the Company Law (Nakamura, 2008).

Indonesia

Colonial inheritance is probably a main explanatory factor for the general system in many countries outside Europe. Within emerging countries, laws are not written from scratch, but rather inherited (Ben Othman & Zeghal, 2008). Most emerging market countries inherited their legal system from the colonial era, and that may also be the foundation behind the board structure that is applied in Indonesia.

National board structure which is applied in Indonesia is two-tier board structure, which consists of Board of Directors (“BoD”) and Board of Commissioner (“BoC”). The practice of this two-tier board structure can be traced back by

reviewing the similarity between Indonesia company law (“UUPT”) and Dutch company law. This similarity partly due to the colonial period which ended in the year 1945 (Tumbuan, 2005). The two-tier board structure was also the traditional Netherlands board system that can be traced back to the first listed company in the world, the VOC, which was incorporated in 1602.

1.1.2.4. The International Trend in National Board Structure: Toward Convergence

What should be noted is that, although both the Anglo-American model and German model are recognized worldwide, they are not perfect models. These models themselves are still developing and evolving. Moreover, over the past twenty years, these two models have been ‘borrowing’ from each other (Nakamura, 2008).

However recently, ongoing debates and discussions regarding corporate governance have more and more concentrated on the convergence between both one-tier and two-tier corporate governance model. One cannot just expect the abolishment of one structure which will then be replaced by the others. Instead, one should expect the more effective system will prevail over time, which may combine various strengths and weakness of the two systems (Jungmann, 2006).

For example, we can not expect a one-tier system with a truly independent board will be applied appropriately in Germany, when there is a strong cultural reason such as co-determination, which requires the seating of nonindependent members in term of labor and shareholder representation. Recently, even though there is a trend towards more shareholder value protection in Germany, there is still little evidence that the governance norm in Germany will move towards shareholder primacy, just like in the United States. However, Germany will most likely to continue structuring a company in a way that best facilitates the relationship between managers, boards, shareholders and stakeholders (Block & Gerstner, 2016).

Likewise, it is unlikely that the United States will apply two-tier or codetermination appropriately, due to the intense political aversion toward allowing

union participation in decision making. Codetermination is also disfavored in U.S. political and corporate culture and is substantially absent in the United States as a matter of positive law. Codetermination is not seen as a good thing by US analysts as it seems as spoiling the worker and making them lazy. US analysts did not realize that trade unions in Germany codetermination have high expertise in workplace safety and working hours, which lead into a higher quality outcome with lower prices, which is Germany's formula in driving the market. Codetermination also allows worker participation in management to prevent fraud, increases employees' willingness to work well, and enable a longer-term perspective on performance. Unfortunately, the same thing is not always the case for labor force in the US, which may be due to lack of expertise or recognition of mutual interest (Engle & Danyliuk, 2015).

However recently, American board has begun to reflect more of German two-tier model, due to the stricter monitoring standards required in US capital market. The strict standard causes the US boards to delegate more of their responsibility to their committees, which in the end diminish the primary advantages of one tier board. The rise of executive sessions, where independent directors perform separate meetings without the executive directors, also portraying more of the Germany two-tier system. Hence, American board nowadays appear to reflect more of a 1.5-tier board instead of a one-tier board (Block & Gerstner, 2016). This also shows a one step toward a convergence.

Finally, we may also conclude that the mere fact that two companies located in different countries possess the same system of governance does not ensure that they will function similarly. The cultural and historical environment in which a company exists profoundly influences its governance structure (Aste, 1999). For example, it is expected that the governance structure in Indonesia will not be precisely the same as the one in Germany, even though they both adopt the same two-tier board structure.

The development of statutory provisions in a country is mostly path dependent. Hence, the strengths and weakness of the system must always be seen in the context of both business and legal environment, which is developed in accordance with their historical, societal and even cultural roots. However, both Continental Europe (Germany) and Anglo-Saxon board systems have proven to be similarly effective in each of their respective cultural systems (Jungmann, 2006).

1.1.3. Transparency and Disclosure

The extent to which a company discloses information about its activities is regarded as an essential factor for the capital market to function effectively (Au, Thompson, & Yeung, 2006). If the company is transparent, the investor will be able to make an informed decision. Regarding this, many countries use awards schemes to promote high standards of disclosure. For example, The Corporate Transparency Index (CTI) in Singapore, measures a company's degree of openness by focusing on the release of the interim results of listed companies, or Standard and Poor study in the United States, which identifies 98 disclosure items in the company's annual report.

There were also several previous studies which highlight the importance of transparency and disclosure, with various methods on how to measure transparency, as can be seen in Table 1-2 below.

Table 1-2. A Measure of Transparency across Different Literature Review

No	Author	Measure of Corporate Transparency
1	Cheng and Courtenay (2006)	Corporate transparency is measured by a checklist which tries to assess the level of firm's voluntary disclosure. The checklist consists of 72 items, which contain: <ol style="list-style-type: none"> 1. Business data (40 individual items): <ol style="list-style-type: none"> a. General corporate information b. Top management information

No	Author	Measure of Corporate Transparency
		<ul style="list-style-type: none"> c. Relevant financial information d. Operational information e. Employees' information f. Corporate governance information g. Other information <p>2. Management's discussion and analysis (13 individual items):</p> <ul style="list-style-type: none"> a. Analysis of year-on-year changes b. Other discussions <p>3. Forward-looking information (19 individual items):</p> <ul style="list-style-type: none"> a. Management forecasts b. Production innovation information c. Other prospective information
2	Wan-Hussin (2009)	<p>Corporate transparency is measured by the adoption of FRS 114 (about segment disclosure) prior to its mandatory date. It is chosen because during that period there is evidence of users' dissatisfaction with the quality of segment disclosures, as illustrated in the AIMR Corporate Disclosure Survey 2000 and OECD White Paper on Corporate Governance in Asia 2003.</p>
3	Huafang and Jianguo (2007)	<p>Corporate transparency is measured by disclosure index developed by the author, which try to assess the level of firm's voluntary disclosure. The checklist consists of 30 items, which contains:</p> <ul style="list-style-type: none"> 1. Background information <ul style="list-style-type: none"> a. Corporate goals b. Strategy and competition 2. Business information: <ul style="list-style-type: none"> a. Changes in sales, b. Changes in costs of goods, c. Profit forecast 3. Financial information: <ul style="list-style-type: none"> a. Gearing ratio

No	Author	Measure of Corporate Transparency
		<ul style="list-style-type: none"> b. Liquidity ratio c. Inventory turnover d. and turnover of receivables <p>4. Non-financial information:</p> <ul style="list-style-type: none"> a. Staff training b. ISO issues c. Corporate culture
4	Current Study	<p>Corporate transparency and disclosure are measured by a checklist developed by DSATK, which tries to assess the firm's compliance in disclosing mandatory information related to corporate governance. The checklist contains 112 items, which contains information about:</p> <ul style="list-style-type: none"> 1. Board of Commissioner (11 items) 2. Board of Directors (13 items) 3. Audit Committee (12 items) 4. A committee other than audit committee (15 items) 5. Nomination and Remuneration committee and reason if not applicable (5 items) 6. Corporate secretary (9 items) 7. Audit internal unit (9 items) 8. An internal control system (3 items) 9. Risk management (3 items) 10. The important matter, if applicable (4 items) 11. Administrative penalty, if applicable (1 item) 12. Code of ethics and corporate culture, if applicable (6 items) 13. ESOP, if applicable (6 items) 14. Whistleblowing system, if applicable (6 items)

1.2. Purpose and Contribution of the Study

There were already various studies which tried to investigate the effectiveness of board characteristics and transparency in each board structure. However, more attention was given to one-tier board structure, which is probably due to the fact that more countries are adopting one-tier than two-tier board structure.

This study contributes to addressing such issue by performing a study in a country adopting two-tier board structure: Indonesia. The study is interested in addressing whether board characteristics and transparency have a correlation to firm performance, in two-tier board structure country. In addition, the study is also interested in addressing whether board characteristic has a correlation with transparency and disclosure itself, which also has not been covered a lot by previous studies.

Another contribution of this study is in the methodology used to investigate such issue. Most previous studies were concentrated in estimating a static model of corporate governance using OLS and fixed-effect. The current study attempts to address the dynamic relationship between corporate governance and firm performance, and estimate such dynamic model using Generalized Method of Moments (“GMM”). The use of GMM can account for endogeneity and simultaneity issue which is common to exist in the dynamic model, which cannot be addressed by OLS and fixed-effect method.

CHAPTER 2. LITERATURE REVIEW

2.1. Corporate Governance in Indonesia

2.1.1. Board Structure in Indonesia

As has been mentioned previously, national board structure applicable in Indonesia is two-tier board structure, when board consists of both BoD and BoC. The characteristics, roles and responsibilities for both BoD and BoC are further explained in OJK Regulation Number 33 Year 2014, as shown in Table 2-1 below.

Table 2-1. Characteristics, Role and Responsibilities for Board of Director and Board of Commissioner of Listed Companies in Indonesia

Board of Directors (BoD)	Board of Commissioner (BoC)
Size and Composition	
<ol style="list-style-type: none"> 1. Minimum two people (should consist of President of Director and Independent Director). 2. Independent Director is minimum one person (even though BoD consists of more than two people). 3. Independent Director is someone who does not: <ol style="list-style-type: none"> a. Have affiliation relationship with companies' controlling shareholder (in the last six months) and other directors/commissioners of the companies. b. Work as a director in other companies. 	<ol style="list-style-type: none"> 1. Minimum two people (should consist of President of the commissioner and independent commissioner). 2. In case more than two people, Independent Commissioner should account for at least 30%. 3. Independent commissioner is someone who does not: <ol style="list-style-type: none"> a. Work in the companies in the last six months. b. Have direct or indirect ownership of the companies. c. Have affiliation relationship with the companies.

Board of Directors (BoD)	Board of Commissioner (BoC)
c. Work as an insider in LPPM (capital market supporting institutions), in which the companies use the service (at least six months before appointed).	d. Have a business relationship with the companies.
Appointment and Discharge	
By General Meeting of Shareholders, with also a recommendation from Board of Commissioner or Nomination Committee.	By General Meeting of Shareholders.
Tenure	
One period = Five years.	One period = Five years.
Double Position	
<p>BoD can hold a job in other companies as:</p> <p>a. BoD Members: not more than one company.</p> <p>b. BoC Members: not more than two companies.</p> <p>c. Committee members: not more than five companies.</p>	<p>BoC members can hold a job in other companies as:</p> <p>a. BoD Members: not more than two companies.</p> <p>b. BoC Members: not more than two companies.</p> <p>c. If BoC does not hold a job as BoD members at other companies, they can hold a job as BoC members, for not more than four companies.</p> <p>d. Committee members: not more than five companies.</p>
Meeting	
Once a month + combined BoD and BoC meeting: once in every four-month.	Once in every two months + combined BoD and BoC meeting: once in every four months.

Board of Directors (BoD)	Board of Commissioner (BoC)
Roles and Responsibilities	
<ol style="list-style-type: none"> 1. To manage the companies on a daily basis, according to the objectives of the companies, as stated in the article of association. 2. To hold an Annual General Meeting of Shareholders or other General Meeting of Shareholders as stated by legislation and articles of association. 3. All BoD have joint responsibility for the company's loss which caused by BoD's mistake or failure in performing their role and responsibilities. 	<ol style="list-style-type: none"> 1. To monitor the company's policy, BoD activities in general, and advise the directors. 2. In specific condition, BoC should hold Annual General Meeting of Shareholders or extraordinary General Meeting of Shareholders, according to his authority, as stated by legislation or articles of association. 3. Should establish an audit committee and may establish another committee. 4. Should evaluate the performance of such committee. 5. Could dismiss BoD temporarily by mentioning the reason. 6. In a specific case, BoC can run the companies for a specified period, based on articles of association and General Meeting of Shareholders.

Source: OJK Regulation Number 33 Year 2014 concerning Board of Director and Board of Commissioner of Issuers or Public Companies (OJK, 2014a)

Since one of the most distinguishing features of national board structure in Indonesia is the existence of BoC (as opposed to just BoD like in other one-tier board structure country), I would like to emphasize more on BoC in this section. Therefore, the next paragraphs will try to discuss several characteristics of BoC in Indonesia, such as the power, regulation, government effort to enhance the power of BoC and also a real example of how BoC works in Indonesia.

2.1.1.1. The Power of BoC in Indonesia

There are several differences between the two-tier board structure applied in Indonesia and the one applied in Germany. The formation of two-tier board structure in Indonesia does not require the companies to have labor representative in Supervisory Board, just like what China and Germany have. Two-tier board structure in Indonesia also has several differences with Germany Supervisory Board in term of role and responsibility.

BoC in Indonesia is weaker than the one in Germany, as it does not have several rights that enable them to control management, such as the **right to nominate and possibly to dismiss** the Board of Directors (Hopt, 2016). In Indonesia, BoC does not have authority to appoints the Board of Directors, as it is directly performed by General Meeting of Shareholders. Indonesia BoC does have the authority to suspend the Board of Directors temporarily, but not permanently. After BoC suspend the BoD temporarily, the final decision (to dismiss or not to dismiss the Board of Directors) will be performed by General Meeting of Shareholders, which represents the shareholder authority in controlling the BoD (Harahap, 2009).

The fact that the electing process is done by General Meeting of Shareholders can limit the ability of the BoC to oversee management and hold them accountable. It also requires the General Meeting of Shareholders to have the technical expertise to choose top managers directly (World Bank, 2010). This brings out the questions about the strategic position of BoC in Indonesia in relation to BoD monitoring.

2.1.1.2. Regulation for BoC in Indonesia

Responsibility imposed by the regulation on BoC in Indonesia is also more general than the one imposed on Germany Supervisory Board. Regulation OJK 33 year 2014 generally describe the responsibility of BoC in Indonesia as to monitor and advise the BoD but does not implicitly imply what is required to be performed to do that. The detail on how the BoC manage their role and responsibility will be

regulated in more detail in each company's article of association, so it may slightly differ across different companies.

This has also been documented by the World Bank Report in 2010, which explain that descriptions of the role and responsibilities of the boards in law or regulation are limited. The voluntary corporate governance code does contain some explicit board responsibilities, such as developing the company's strategy and risk policy. The BoC is responsible for monitoring major corporate actions and performance, but neither the code nor law gives the BoC specific responsibility to develop performance indicators or approve major transactions (World Bank, 2010).

On the other hand, Germany Stock Corporation Act implicitly disclose the extensive right that the Germany Supervisory Board may perform to fulfill the monitoring function, such as the right to inspect and examine the books and records of the company as well as the assets of the company, in particular cash, securities and merchandise. Supervisory board may also commission individual members or, concerning specific assignment, individual experts to carry out such inspection and examination. It shall instruct the auditor as to the annual financial statements and consolidated financial statement according to 290 of the Commercial Code (Fullbright, 2016)

Germany stock corporation act also discloses that the Supervisory Board shall examine the annual financial statements, the annual report and the proposal for the appropriation of distributable profits, in the case of parent companies also the consolidated financial statement and consolidated annual report. The supervisory board shall report on the results of its examination in writing to the shareholders' meeting. This kind of requirement is not regulated formally by Indonesia government. In practice, it might be done by BoC, but might also not be done as well.

However, there is no binding law and regulation which will enforce such specific compliance. This raise questions on the real power of BoC in Indonesia, as their lack of authority, provoke question on how they can monitor the company

effectively if they occupy an inferior position in the corporate governance power structure. BoC in Indonesia might be seen as subordinates of BoD and senior managers. Board with this type of position do not have the power to monitor and check the directors and senior managers, and in many companies, the supervisory board is prepared or censored by the BoD (Dahya, Karbhari, Xiao, & Yang, 2003).

The role of the Board of Commissioner and the Board of Directors often remain unclear in Indonesia day-to-day company operations. The members of all these bodies are supposed to be experienced and capable, but in reality, they lack awareness of their responsibilities, due to a historical lack of general good practice in their areas in Indonesia (World Bank, 2014).

2.1.1.3. Government Effort to Enhance Power of BoC in Indonesia

Despite its weak role and responsibilities, there are several things that have been done by the Indonesian government in order to enhance the function of Board of Commissioners, such as by enhancing the function of supporting committee under the supervision of Board of Commissioner.

Supporting Committee under Board of Commissioner

One of the possible reasons why Board of Commissioner in Indonesia may enhance the value of the firm performance is the extensive use of committees that they use. Indonesia Financial Services Authority (“OJK”) has mandated listed companies in Indonesia to establish Audit Committee and Nomination and Remuneration Committee. Both of these committees are led by the independent commissioner and consists of external or internal members. Additionally, BoC may also establish Risk Management Committee and Corporate Governance Committee even though it is not enforced yet by the regulations.

A survey by OECD which tries to investigate the implementation of OECD Principles of Corporate Governance among Asian countries had summarized the list

of committees under BoC supervision which are mandated by the Asian countries. The detail of such list can be seen in Appendix 1 (page 72). Based on that list, Indonesia is the only country which already makes it mandatory for the listed companies to have both audit committee, nomination committee and remuneration committee, among Asian countries which are applying two-tier board structure (such as China, Chinese Taipei and Vietnam). While for countries with one-tier board structure, Hongkong China, India, Mongolia and Singapore have made it mandatory for the listed companies to have all three committees. India and Singapore have even required the listed companies to have Risk Management Committee, while some other countries (Indonesia, Korea, Malaysia, Philippines, and Thailand) require Risk Management Committee only for banks or financial companies. However, the rest of the Asian countries (which is half of the population) do not require the listed companies to have risk management committee at all.

As Indonesia has two-tier board structure, those three committees (audit, nomination and remuneration) are placed under the supervision of BoC, to support BoC performance. Since audit committee is 100% independent and remuneration and nomination committee is 66% independent, those committees are also enhancing BoC independence in supervising and advising BoD. Each of those committees has an extensive role and responsibilities which support BoC performance, as shown in Table 2-2 below:

Table 2-2. The Roles and Responsibilities for Audit Committees and Remuneration & Nomination Committees of Listed Companies in Indonesia

	Audit Committee	Remuneration and Nomination Committee
Roles and Responsibilities	<ol style="list-style-type: none"> 1. Review any financial information which will be released by the companies. 2. Review companies' compliance toward regulation. 	<u>Nomination function</u> <ol style="list-style-type: none"> 1. Recommend the BoC regarding: <ol style="list-style-type: none"> a. The composition of BoD and BoC.

	Audit Committee	Remuneration and Nomination Committee
	<p>3. Issue independent opinion in case there is a dissention between management and external auditor.</p> <p>4. Recommend the BoC to appoint an external auditor.</p> <p>5. Review the work of audit internal.</p> <p>6. Review the risk management activities performed by BoD.</p> <p>7. Review complain related to accounting and financial reporting.</p> <p>8. Review and recommend the BoC regarding the potential of conflict of interest.</p> <p>9. Keep the confidentiality of documents, data and information of the companies.</p>	<p>b. The policy and criteria needed for the nomination process.</p> <p>c. The performance appraisal policy for the BoD and BoC.</p> <p>2. Support BoC in performing the appraisal of BoD and BOC, based on agreed-upon benchmark.</p> <p>3. Recommend the BoC regarding capabilities improvement program for BoD and BOC.</p> <p>4. Recommend the candidate for BoD or BOC, which will be delivered to the shareholders meeting.</p> <p><u>Remuneration function</u></p> <p>1. Recommend the BoC regarding:</p> <p>a. Remuneration structure.</p> <p>b. Remuneration policy.</p> <p>c. Remuneration amount.</p> <p>2. Support the BoC in performing the appraisal.</p>
Members	<p>Minimum three people, consist of:</p> <p>1. Independent commissioners (as a chairman).</p> <p>2. External parties.</p>	<p>Minimum three people, consist of:</p> <p>1. Independent commissioners (as a chairman).</p> <p>2. While the other members may come from:</p> <p>a. BoC members.</p> <p>b. External parties.</p> <p>c. The managerial level under BoD (with responsibility related to Human Resource Function), which should not</p>

	Audit Committee	Remuneration and Nomination Committee
		account for > 50% of total committee members.
Independence Level	100%	66%
Meeting	Once in every three months (Attended by at least half of the committee members)	Once in every four months (Attended by at least half of the committee members)
Minutes of Meeting	Submitted to BoC	
Activities Report	Should be disclosed in the Annual Report	Should be disclosed in the Annual Report and website

Source: OJK Regulation Number 55 Year 2015 concerning The Formation and Operating Procedure of Audit Committee (OJK, 2015b) and OJK Regulation Number 34 Year 2014 concerning Nomination and Remuneration Committee of Issuers or Public Companies (OJK, 2014b)

For countries with one-tier board structure, those four committees are placed under BoD supervision. This has been indicated as a distinctive feature in countries with one-tier board structure, where more and more BoD is currently supported by the vast numbers of committees, up to the point that the board structure reflects a 1.5 tier board structure instead of one-tier board structure.

The Independence of Supporting Committee under Board of Commissioner

Further, Indonesia is also one of the few countries which requires a 'higher' proportion for its independent member in committee (100% for Audit Committee and 66% for Nomination and Remuneration committee), together with Canada, Hungary, Italy, Mexico, Slovenia, South Africa, Turkey and United States (OECD, 2017a).

There are also some other countries which requires similar high proportion of independence committee member, but instead of legalizing it in through regulation, they just recommend in through the corporate governance code, for example Brazil,

Czech Republic, Ireland, Russia, Switzerland and United Kingdom (the detail can be seen in Appendix 2 in page 73).

Internal control and risk management function

The Indonesian government has also taken the governance of internal control and risk management seriously by legally enforce it through regulation, not just recommend it through Corporate Governance Codes. Based on the same survey performed by OECD to forty-seven jurisdictions (the detail can be seen in Appendix 3 in page 75), Indonesia is the only jurisdiction which legally regulates specific requirements regarding governance of internal control and risk management, as follow:

- a. Specific provisions which are describing “Board responsibilities for risk management.”
- b. Specific provisions which are describing “Implementation of the internal control and risk management system.”
- c. Including Risk management explicitly in the role of audit committee, through OJK regulation number 55 concerning The Formation and Operating Procedure of Audit Committee (OJK, 2015b)
- d. Internal auditors as a party in charge of risk management, which is regulated through OJK regulation number 56 concerning The Formation of Audit Internal Unit and The Policy of Audit Internal Charter (OJK, 2015c)

The rest of the jurisdictions only enforce some (2 or 3) of the criteria above through regulation, while the others just recommend it through the corporate governance codes, as can be seen in Appendix 3 (page 75).

2.1.1.4. Example: How BoC Works in Indonesia

To give a big picture of how the BoC in Indonesia works, I will show an example from Company A, an Indonesian company which has won the Annual

Report Award 2015, one of the most prestigious events in Indonesia related to Corporate Governance. After analyzing the information disclosed in the company's Annual Report, there are several conclusions that can be considered:

a. The Supporting Committees Performance has Significant Contribution toward BoC Performance

In their annual report, company A disclosed Key Performance Indicator which is used to assess BoC performance. The details of such key performance indicator can be seen in Appendix 4 (page 77).

Based on that information, the majority of the BoC performance evaluation (60%) comes from the achievement of supporting committees under BoC supervision (Audit Committee, GCG-NR Committee and Risk Management Committee). Further, we can also note that one of other evaluation comes from the accomplishment of monitoring effectiveness for GCG practices.

Company A has also disclosed their meeting agenda in the Annual Report, where most of those agendas consist of the progress report or strategic issue delivered by their supporting committees. The details of the agenda can be seen in Appendix 5 (page 78).

This regular submission of the strategic issue by supporting committees ensure that the BoC will always be aware of any current circumstances in the company, and what kind of actions that are needed to be taken. With this kind of supporting committees under BoC supervision, where the monitoring is maintained independently, companies are expected to have better monitoring system than if such supporting committees are placed directly under BoD supervision, where the monitoring system is still done by members of the same group.

- b. BOC get an update of management performance each month

Other than that, BoC in Company A also held another 12 meetings which also invite BoD, with attendance rate 82%. One of the agenda that is always discussed each month is regarding Management Performance Report.

- c. BOC communicates their concern regarding Good Corporate Governance and coordinates the implementation with BOD

Agenda point 6 of BoC meeting includes site visit report, which reflects BoC activities always to be familiar with companies operational activities. Further, the agenda also includes the GCG implementation planning, which reflects BoC concern and responsibility regarding the implementation of Good Corporate Governance.

In the combined BoD and BoC meeting, BoC also delivered their concern regarding corporate governance by communicating several agendas. The detail can be seen in Appendix 6 (page 79).

- d. BOC Approves Material Transaction

Company A has also discussed in the Annual Report that there are several material transactions that have been approved by BoC in 2015. BoC ratification reflects that BoC is included in significant decision making.

- e. BoC proposed the remuneration value for BoD and BoC

As the nomination and remuneration committee is under BoC supervision, BoC is the one who proposes the amount of remuneration. They do so by submitting an official letter which has been approved by Ministry of State Owned Enterprise. This way, BoC may perform more independent monitoring functions, as the remuneration system does not depend on the supervised party.

2.1.2. Transparency and Disclosure in Indonesia

There are several attempts that have been made by Indonesia Financial Services Authority (“OJK”) to enhance a good corporate governance practice in Indonesia, such as improving the regulation and also performing several studies concerning corporate governance practice among listed companies in Indonesia.

Since 2008, Accounting Standards and Governance Directorate (“DSATK”) in OJK has been performing an annual study which tries to check for Corporate Governance compliance among Indonesian listed companies. The study is focusing on the level of transparency and disclosure that the listed companies have, by checking the completeness of Corporate Governance elements which are disclosed by listed companies in their annual report. The study also tries to analyze the trend of transparency and disclosure rate over time, among listed companies in Indonesia.

Bapepam-LK Regulation Number X.K.6 regulates things that should be considered by the listed companies when preparing the annual report. Those things include fourteen primary information concerning Corporate Governance, which is presented in Table 2-3 below. Some of that disclosure in Table 2-3 will be related to companies’ compliance with specific regulations below:

- a. OJK Regulation Number 33 year 2014, concerning Board of Director and Board of Commissioner of Issuers or Public Companies
- b. OJK Regulation Number 34 year 2014, concerning Nomination and Remuneration Committee of Issuers or Public Companies
- c. OJK Regulation Number 35 year 2014 concerning Corporate Secretary of Issuers or Public Companies of Issuers or Public Companies
- d. OJK Regulation Number 55 Year 2015 concerning The Formation and Operating Procedure of Audit Committee
- e. OJK Regulation Number 56 Year 2015 concerning The Formation of Audit Internal Unit and The Policy of Audit Internal Charter

Each of those regulations above will detail the sub-elements of corporate governance that the companies should disclose in their annual report. For example, OJK Regulation Number 33 Year 2014 explains the detail of specific requirement regarding board member composition, appointment and dischargement, tenure, double position, meeting, role and responsibilities.

However, in practice, there are some listed companies which did not disclose such information in the annual report. For that purpose, DSATK tried to assess the compliance rate for such disclosure. Each listed company will be given a rating (score), with a scale from 0 until 100, which represents their compliance rate and transparency in disclosing such elements and sub-elements.

Table 2-3. Corporate Governance Elements which should be Disclosed in the Annual Report of Listed Companies in Indonesia

Corporate Governance Elements	Corporate Governance Elements
1. Board of Commissioner	8. Internal Control System
2. Board of Director	9. Risk Management
3. Audit Committee	10. Important Case (if applicable)
4. A committee other than the audit committee	11. Administrative Penalty (if applicable)
5. Nomination and Remuneration Committee	12. Code of Ethics and Corporate Culture (if applicable)
6. Corporate Secretary	13. Stock Ownership Program (if applicable)
7. Internal Audit Unit	14. Whistleblowing System (if applicable)

Source: Bapepam-LK Regulation Number X.K.6 concerning Annual Report of Issuers or Public Companies (Bapepam-LK, 2012)

The result of this compliance study in the year 2015 shows that the average rate of transparency and disclosure among listed companies in Indonesia in the year 2015 is 68%, which is an increase compared to the previous year rate of 62.44%. This indicates that companies' awareness of the importance of transparency and disclosure has shown an improvement over years.

Table 2-4 below discloses the corporate governance sub-elements which are disclosed most frequently and most infrequently by listed companies in Indonesia during 2015. One of the most interesting things shown in Table 2-4 is the fact that most listed companies in Indonesia did not disclose information related with remuneration of Board of Directors and Board of Commissioner, either the amount of remuneration or the legal basis to determine that amount.

Table 2-4. Corporate Governance Sub-Elements which are Disclosed the most Frequently/Infrequently by Listed Companies in Indonesia (2015)

Corporate governance sub-elements which are disclosed the most frequently	Corporate governance sub-elements which are disclosed the most infrequently
<ol style="list-style-type: none"> 1. Audit committee's (chairman and members) name. 2. Corporate secretary name. 3. Description of BoC activities. 4. Education background of audit committee members. 5. Risk type and management. 6. Education background of corporate secretary. 	<ol style="list-style-type: none"> 1. Remuneration of BoD members. 2. Remuneration of BoC members. 3. Tenure of audit committee's members. 4. The legal basis of BoC members' remuneration. 5. Tenure of corporate secretary. 6. The legal basis of BoD members' remuneration.

Source: Analysis of Corporate Governance Disclosure in Annual Report 2015 (OJK, 2015a)

Regarding that, non-transparency of board remuneration/compensation scheme also existed in some other countries in the world. Even President George W. Bush once challenged all CEO in America to details his remuneration/compensation package, including salary, bonus and benefits, in the annual report. CEO should also explain why his or her compensation package is in the best interest of the company he serves. At that time CEO compensation disclosure in the annual report was already required to by SEC, but such information is often buried in a lengthy proxy statement and seldom seen by shareholders (Patel & Dallas, 2002)

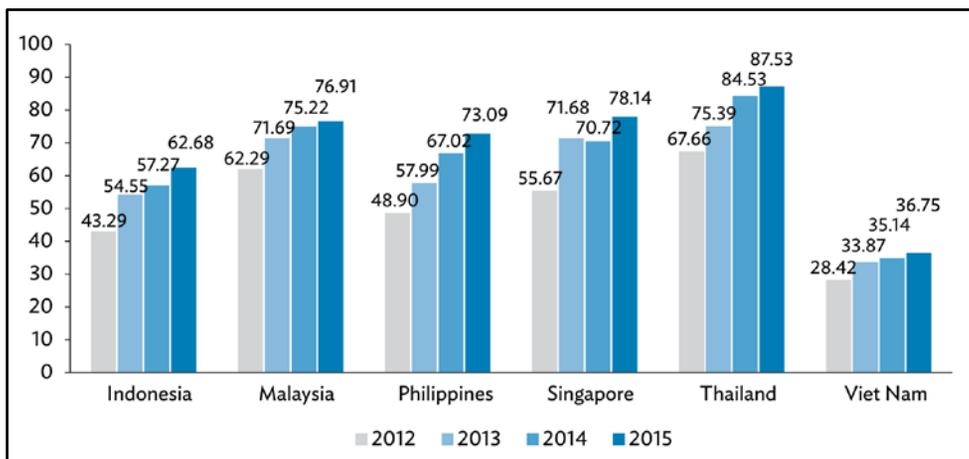
2.1.3. Corporate Governance Assessment in Indonesia

There are two reports which are regularly released to assess countries compliance toward OECD Principle of Corporate Governance. The responsibility of the board and disclosure & transparency are two of the five OECD Principle of Corporate Governance which is assessed in the reports and is also the primary interest of this study.

The first report is ASEAN Corporate Governance Scorecard (“ACGS”), which assesses 100 listed companies with largest market capitalization, in each ASEAN countries. While the second one is Reports on The Observance of Standards and Codes (“ROSC”), which assesses the country’s corporate governance policy framework, to identify weaknesses that may contribute to a country’s economic and financial vulnerability. The latest reports assessing Indonesia were ACGS 2015 and ROSC 2010.

For ACGS 2015, there were a total of 555 Publicly Listed Companies (“PLC”) from five countries in ASEAN which were assessed, where 100 PLC was coming from Indonesia. Over the years, Indonesia has a stable increase in the overall scores, but however, it is still lower than the peer countries. As can be seen in Table 2-5 below, Indonesia has the second lowest ranking over four consecutive years.

Table 2-5. Corporate Governance Scores by Country (in ACGS 2015 Report)



Source: ASEAN Corporate Governance Scorecard Country Reports and Assessment 2015 (Asian Development Bank, 2015)

ACGS 2015 specifically suggested several corporate governance areas to be improved, such as empowering independent commissioner and empowering BoC. Empowering independent commissioner can be performed by increasing the proportion in the BoC and improving the selection and appointment process by the committee. While empowering BoC can be performed by improving the performance evaluation by developing evaluation criteria.

However, we should also note that the average compliance level regarding transparency in Indonesia is 70%, which is the highest among the five OECD principle of corporate governance which are being assessed. This may indicate that Indonesian listed companies actually already comply with corporate governance disclosure standard up to certain level, which may not be affected by the level of their accounting performance.

On the other hand, ROSC 2010 has also noted that Indonesia is below Asia regional average (India, Malaysia, Thailand, Philippines, and Vietnam), in term of board responsibilities, but slightly above average in term of transparency (World Bank, 2010), which is still in line with ACGS 2015. ROSC 2010 explicitly stated that the role of BoC in Indonesia has been limited, where BoC do not choose BoD and do not have any explicit authority in other areas.

2.2. Previous Studies concerning Corporate Governance-Firm Performance Relationship

2.2.1. Relationship between BoC Size and Firm Performance

Most of the previous literature was concentrated on the relationship between BoD size with firm performance while little attention was given to BoC size. This might be due to the fact that most countries in the world are adopting one-tier board structure, instead of two-tier board structure. However, there are two studies in China and Germany, countries adopting two-tier board structure, performed by Wang (2013) and Bermig and Frick (2010).

Wang (2013) found that there is a negative correlation between BoC size and firm performance in China and conclude that such negative correlation is due to communication, coordination and free rider problem. His reasoning confirmed the previous finding by Yermack (1996) which is actually a study for a one-tier board structure.

While for Bermig and Frick (2010), they found an inconclusive result when they used a different proxy for firm performance. The author found that supervisory board size will correlate positively with Tobin's Q but negatively with a total return to shareholders (total return including capital gains as well as possible dividend payments). In the end, they conclude that such incompatible results may be due to the result of theoretical or methodological shortcomings.

In Indonesia, a previous study by Darmadi (2011) and Hidayat and Utama (2016) have tried to investigate the correlation between BoC size and firm performance, using a sample of listed companies from the year 2005-2007 and 2008-2012, correspondingly. Both studies conclude that firm performance will be maximized when the size of the board is either very small or huge. When the companies are complex, a large board will be more beneficial, while when the companies are less complicated, a very small board will be more beneficial. This result confirms a previous result by Coles, Daniel, and Naveen (2008), which showed that firm values increases as the board size increases for complex firms, and the opposite for simple firms. This is because larger firms have to deal with more complexity in their business. Hence they will benefit more from a larger board, and the opposite for smaller firm.

However, what I want to highlight here is the similarity of all these studies is the belief that BoC will always perform their function by monitoring and advise the company. Hence, when the study found a positive correlation, they will imply that it must be because BoC already performed an excellent monitoring or advisory function. But if they found a negative correlation, it must be because the size of the

BoC is too large, that it causes communication or coordination problem. Otherwise, the company will have a better firm performance.

However, BoC across countries have different characteristics, as what I have discussed in the previous section regarding example from Indonesia. Therefore, we should attribute the positive/negative finding based on that characteristics as well, which is what I try to address in this study.

2.2.2. Relationship between BoC Independence and Firm Performance

A study which intends to find a solution for supervisory boards ineffective problem above suggests that it is crucial to improve the independence of the Supervisory Board to make it more useful (Dahya et al., 2003).

Concerning the board independence problem, Indonesia has made it mandatory for listed companies to have independent member among the BoC, at least 30% of BoC size. Based on Indonesia Corporate Governance Manual, independent commissioners (independent members of BoC) can make a substantial contribution to crucial decisions of the company, especially in evaluating executive performance, setting executive and commissioner remuneration, reviewing financial statements, and in resolving corporate conflicts. Independent commissioners will also give investors additional confidence that the BoC' deliberations will be free of obvious bias. (World Bank, 2014)

The fact that listed companies in Indonesia are mostly family-controlled (Claessens, Djankov, & Lang, 2000), also add more importance to the determination of Independent Commissioner. The use of two-tier board system may accentuate this family values effect on companies' authority and supervision, as it is common in Indonesia to find cases where a younger sister sits as a commissioner and an older brother sits as one of the executive directors (Tabalujan, 2002). In this case, the existence of independent commissioner plays a vital role as the companies should appoint a controller who is not affiliated with the family.

Previous literature reviews about board independence have also suggested that board independence/autonomy can monitor and supervise management more effectively, as it can minimize agency cost, improve financial performance (Baysinger & Butler, 1985) and increase the shareholder value (Wang, 2013).

2.2.3. Relationship between BoD Size and Firm Performance

Previous studies found a positive correlation between BoD size and economic performance (Dalton, Daily, Ellstrand, & Johnson, 1998; Zahra & Pearce, 1989), as they can create more opportunity and resources for firm financial performance (Chugh, Meador, & Kumar, 2011), provide more significant information, connection, improve decision making condition (Ghasemi & Ab Razak, 2016), gather greater intellectual capacity (Van den Berghe & Levrau, 2004), and improve firm's capacity to establish external links, procurement of resources and the presence of more qualified advisors (Dalton et al., 1998).

But several other studies found an inverse relation between BoD size and firm performance (Bennedsen, Kongsted, & Nielsen, 2008; Eisenberg, Sundgren, & Wells, 1998; Mak & Kusnadi, 2005; Ujunwa, 2012), with some of the argued that larger board size will show the problem in coordination, communication and decision making (Yermack, 1996), agency problems may increase and some members may be marked as free-riders (Haniffa & Hudaib, 2006), or it may turn out to be a symbolic structure, without really doing their actual function as management (Guest, 2009) and it will be less informed about its earnings and have less monitoring abilities (Vafeas, 1999).

Literature reviews which tried to investigate the relationship between board size and firm performance above suggest an inconclusive result. However, most of those previous studies were performed in the developed market which adopts a one-tier board structure. The current study offers an additional view, where the research is performed in the emerging market which adopts a two-tier board structure.

2.2.4. Relationship between Transparency and Firm Performance

While it is important to recognise that no single universal model of corporate governance exists, it is also fair to say that transparency and disclosure are critical attributes of any model of good corporate governance (Mallin, 2002), as better transparency and disclosure keep corporate stakeholders better informed about the way a company is being managed (Patel & Dallas, 2002). It is also crucial for mitigating asymmetric information and agency problems. Also, better disclosure will give a positive impact on the efficient functioning of capital markets (Healy & Palepu, 2001). It has been confirmed by previous studies which suggest that firms with better corporate governance tend to be bigger, have a higher average return, lower dividend yield, higher valuation and the higher ratio (Drobetz, Schillhofer, & Zimmermann, 2004; von Nandelstadh & Rosenberg, 2003).

2.2.5. Relationship between BoC size, BoC Independence, BoD size and Transparency

However, it is also interesting to investigate the relationship between board characteristics and firm transparency. Unfortunately, most studies regarding corporate transparency are interested in investigating the relationship between corporate transparency and firm performance as the output. Only limited studies tried to investigate the relationship between corporate transparency and board characteristics as a determinant, where all of them found a positive correlation between the proportion of independent director with the level of corporate transparency (Cheng & Courtenay, 2006; Huafang & Jianguo, 2007; Wan-Hussin, 2009). These results are in line with Fama (1980) and Fama and Jensen (1983) which suggest that boards which are composed of a higher proportion of outside directors (directors not involved in the direct operations of the firm) have greater monitoring ability over management. Independent commissioner is also expected to reduce information asymmetry and mitigate agency problem in the corporate governance,

which in the end will improve firms' transparency, as can be measured by firms' corporate governance disclosure rating. Here, better monitoring is expected to be inline with better disclosure by the companies.

Cheng and Courtenay (2006) have also argued that the board size has no correlation with the level of firm's corporate transparency, just because previous literature reviews regarding this area were almost non-existent. Their argument has also been confirmed by their findings, where board size has no correlation with corporate transparency.

However, most of the studies above were performed in the countries applying one-tier board structure, except one study by Huafang and Jianguo (2007) in China. Current study tries to add to the literature by performing similar research in the country which applies two-tier board structure, Indonesia. Further, Williamson (1984) has also provided a framework which associates corporate governance positively with firm's disclosure quality. Hence we expect that corporate governance structure such as the board size and independence should correlate positively with firm transparency and disclosure.

CHAPTER 3. METHODOLOGY

3.1. Methodology

The methodology used in this study is built upon the fact that most previous studies characterize the relationship between corporate governance mechanism and performance as static. Those studies also estimated the model using simple OLS or fixed-effect method. The results were also inconclusive, as there were various of different findings.

However, Wintoki, Linck, and Netter (2012) emphasize the importance of taking into account the dynamic nature of corporate governance. In their study, the authors mentioned that the board structure is partly a function of the bargaining process between the CEO and the board. And since the CEO's bargaining position is a function of her ability, which is measured by past performance, then board structure must also depend on past performance as well.

Further, Raheja (2005) and Harris and Raviv (2006) also implied that past performance also has a direct influence on the firm's information environment, profit potential, and the opportunity cost of outside directors, which are factors that may affect the optimal board structure.

Those arguments led Wintoki et al. (2012) to believe that any theoretical model which ignores the dynamic relation between current board structure and past performance will yield inconsistent estimates. The dynamic relation itself can be captured by using a lag dependent and independent variables (lag model). Further, applying inappropriate estimation methods, such as OLS or fixed effect toward dynamic model (lag model) may also result in similar bias result, as those methods are unable to account for endogeneity in the dynamic model (lag model).

However, it is hard to account for endogeneity when assessing the relationship between corporate governance and firm performance, due to the difficulty of finding

exogenous factor as an instrument of the endogenous variable. This is also probably the reason why most previous research used simple OLS or fixed effect, which result in various inconclusive result.

To overcome such issue, one can estimate the corporate governance model using Generalized Method of Moments (GMM), as it relies on instruments coming internally from the model itself. This is also one of the reasons why GMM is slightly different from Instrumental Variable/2SLS method. It used past values of governance and performance as instruments of current realization of governance, which eliminate the need for external instruments.

GMM is also more reliable than simple OLS or fixed effect in specific ways as follow:

1. Unlike OLS estimation, it accounts for time-invariant unobservable effects, which is performed through the first-differencing method.
2. Unlike fixed-effects estimation, it accounts for endogeneity, where the time-varying unobservable effect is correlated with explanatory variables.

In the case of this study, it allows current corporate governance mechanism and current performance to be influenced by previous realizations of performance and corporate governance mechanism.

Therefore, the analysis performed in this study consists of three parts, as follow:

1. Estimating the static model using OLS and fixed-effect method, to show how previous research of corporate governance was mostly performed
2. Estimating the dynamic model (lag model) using OLS and fixed-effect method, to show the importance of considering the dynamic model of corporate governance
3. Estimating the dynamic model (lag model) using GMM, to show the most robust result, as GMM estimation method can overcome issues that cannot be addressed by OLS and fixed-effect method.

3.2. Equation Model and Variables

In addition to static model commonly used in the previous studies related to corporate governance, this paper also uses a dynamic model of corporate governance, where lag dependent and independent variables act as explanatory variables.

The equation model used in the study are shown in Table 3-1 below.

Table 3-1. Equation Model

Model	Static
1	$Y_{it} = \alpha + \beta_1 X_{it} + \beta_2 T_{it} + \beta_3 Z_{it} + n_i + \varepsilon_{it}$
2	$T_{it} = \alpha + \beta_1 X_{it} + \beta_2 Y_{it} + \beta_3 Z_{it} + n_i + \varepsilon_{it}$
Model	Dynamic (with lag)
1	$Y_{it} = \alpha + \beta_1 x_{it} + \beta_2 T_{it} + \beta_3 Z_{it} + \beta_4 X_{i(t-1)} + \beta_5 T_{i(t-1)} + \beta_6 Z_{i(t-1)} + \beta_7 Y_{i(t-1)} + n_i + \varepsilon_{it}$
2	$T_{it} = \alpha + \beta_1 X_{it} + \beta_2 Y_{it} + \beta_3 Z_{it} + \beta_4 X_{i(t-1)} + \beta_5 Y_{i(t-1)} + \beta_6 Z_{i(t-1)} + \beta_7 T_{i(t-1)} + n_i + \varepsilon_{it}$

Where Y denotes firm performance, X denotes board characteristics, T denotes transparency and disclosure, Z denotes firm characteristics, n denotes time-invariant unobservable error (unobserved firm effect) and ε denotes random error term.

Each of the static and dynamic models has two equations, where the first equation tries to investigate the correlation between board characteristics, transparency and firm performance, while the second equation tries to investigate the correlation between board characteristics and transparency itself.

Variables description used in the equation are shown in Table 3-2 below.

Table 3-2. Variables Description

Variable	Description
Firm Performance:	Tobin's Q, ROA, ROS
Board Characteristics:	
BoC Size	Total BoC / ln(Asset)
BoC Independence	Percentage of Independent Commissioner in BoC

Variable	Description
BoD Size	Total BoD / ln(Asset)
Transparency & Disclosure:	Corporate Governance Disclosure Rating obtained internally from Indonesia Financial Services Authority
Firm Characteristics:	
Foreign Ownership	Percentage of foreign ownership in the company
Age	Ln (listing age)
Average Sales Growth	Average sales growth for the last two years
ROA	Gain (loss) / Total Assets
Sales	Ln (sales)
Debt	Total liabilities/total assets

3.3. Hypothesis

After considering corporate governance condition in Indonesia, previous studies concerning governance-performance relationship and method of estimation used in this study, I would like to test the hypothesis in each model as follow:

a. Model 1: Correlation between Board Characteristics, Transparency and Firm Performance

Hypothesis 1: Firms with larger BoC size will have better firm performance.

Hypothesis 2: Firms with higher BoC independence will have better firm performance.

Hypothesis 3: Firms with larger BoD size will have better firm performance.

Hypothesis 4: Firms with better transparency will have better firm performance.

b. Model 2: Correlation between Board Characteristics and Transparency

Hypothesis 5a: Firms with larger BoC size will have better transparency.

Hypothesis 5b: Firms with higher BoC independence will have better transparency.

Hypothesis 5c: Firms with larger BoD size will have better transparency.

3.4. Data

Data population for this study are 409 firms listed on Indonesia Stock Exchange during 2012-2015 with complete financial and corporate governance variable data. However, as transparency variables are only available for 2014-2015, the transparency variables for 2012-2013 use the average of 2014-2015.

Financial data and corporate governance data are obtained internally from Indonesia Financial Services Authority and Bloomberg Terminal. As transparency variables are only available for 2014-2015, the transparency variables for 2012-2013 will use the average of 2014-2015.

CHAPTER 4. RESULT AND DISCUSSION

4.1. Result: Comparison between OLS, FE and GMM Method in Estimating Corporate Governance Model

4.1.1. Estimating a Static Model of Corporate Governance using OLS and FE Method.

For this study, I first estimate my model using OLS method and fixed effect method, as shown in Table 4-1, Table 4-2 and Table 4-3. When estimating the static model using OLS and fixed-effect method, I found a lot of statistically significant results, which are in line with most previous studies performed in Indonesia before 2012, where board characteristics are found to be positively correlated to firm performance.

Table 4-1. Regression Result for Static Model, using OLS Method (Model 1)

VARIABLES	OLS Method		
	TQ	ROA	ROS
BoC Size	0.148** (0.0599)	0.00455 (0.00929)	0.952 (2.375)
BoC Independence	0.377*** (0.128)	-0.00568 (0.0200)	-1.571 (5.111)
BoD Size	0.206*** (0.0629)	0.0110 (0.00974)	0.827 (2.492)
Transparency	-0.00195 (0.119)	0.0308* (0.0183)	-9.128* (4.694)
Foreign Ownership	-0.0272 (0.0659)	0.00798 (0.0102)	2.356 (2.610)
Age	-0.0734*** (0.0210)	0.00331 (0.00325)	0.867 (0.831)
Average Sales Growth	0.00377 (0.00275)	5.87e-05 (0.000429)	0.0206 (0.110)
ROA	1.925*** (0.179)		16.64** (7.094)
Sales	-0.0295** (0.0120)	0.00931*** (0.00184)	-0.497 (0.475)
Debt	0.387*** (0.0306)	-0.0537*** (0.00449)	-1.681 (1.209)
Constant	1.527***	-0.185***	20.32

VARIABLES	OLS Method		
	TQ	ROA	ROS
	(0.413)	(0.0637)	(16.33)
Observations	1,288	1,308	1,308
R-squared	0.168	0.160	0.014
Number of Firms	-	-	-

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4-2. Regression Result for Static Model, using Fixed Effect/Random Effect Method (Model 1)

VARIABLES	Fixed Effect/Random Effect		
	TQ	ROA	ROS
BoC Size	0.186* (0.0968)	0.00155 (0.0179)	13.30** (6.356)
BoC Independence	0.0995 (0.113)	0.00785 (0.0209)	-2.395 (7.446)
BoD Size	-0.0547 (0.0905)	0.00368 (0.0166)	5.217 (5.913)
Transparency	-0.325 (0.200)	0.0325 (0.0365)	-26.36** (13.02)
Foreign Ownership	-0.0752 (0.140)	-0.0240 (0.0260)	7.859 (9.268)
Age	-0.123** (0.0534)	-0.0397*** (0.00978)	-6.386* (3.511)
Average Sales Growth	-0.00183 (0.00234)	-1.14e-05 (0.000436)	-0.0969 (0.155)
ROA	0.625*** (0.178)		4.254 (11.71)
Sales	-0.173*** (0.0255)	0.0235*** (0.00467)	-0.571 (1.686)
Debt	0.250*** (0.0490)	-0.0670*** (0.00880)	0.0815 (3.228)
Constant	5.680*** (0.739)	-0.488*** (0.136)	79.89 (48.73)
Observations	1,288	1,308	1,308
R-squared	0.088	0.096	0.017
Number of Firms	375	375	375

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4-3. Regression Result for Static Model, using OLS and Fixed Effect Method (Model 2)

VARIABLES	Transparency and Disclosure	
	OLS	FE
BoC Size	0.0390*** (0.0141)	0.0347** (0.0161)
BoC Independence	0.00787 (0.0304)	-0.0173 (0.0187)
BoD Size	0.0310** (0.0149)	0.00175 (0.0150)
Tobin's Q	-0.000108 (0.00659)	-0.00896 (0.00552)
Foreign Ownership	-0.0297* (0.0155)	0.0610*** (0.0232)
Age	-0.00809 (0.00496)	0.0548*** (0.00870)
Average Sales Growth	-0.00108* (0.000648)	-0.00110*** (0.000387)
ROA	0.0723 (0.0440)	0.0327 (0.0297)
Sales	0.0266*** (0.00273)	-0.00375 (0.00434)
Debt	-0.0256*** (0.00761)	0.00464 (0.00826)
Constant	0.0188 (0.0977)	0.618*** (0.125)
Observations	1,288	1,288
R-squared	0.181	0.074
Number of Firms	-	375

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.1.2. Estimating a Dynamic Model (Lag Model) of Corporate Governance using OLS and FE Method

I also consider a dynamic model by adding lag of dependent and independent variable, to describe the dynamic relationship between board characteristics, transparency and firm performance. I again performed OLS, fixed effect and random effect method to the dynamic model, as shown in Table 4-4, Table 4-5 and Table 4-6.

When I estimate the dynamic model using OLS and fixed-effect, there is a slight change regarding which variable of interest having a statistically significant correlation to firm performance and transparency. I also found that some of the lag variables are shown to have a statistically significant correlation with firm performance and transparency, for example, lag transparency, lag ROA, lag Tobin's Q, etc. There is also a significant increase in R-square, compared to when I just use a static model.

This finding highlights the importance of having a dynamic model of corporate governance, as it allows the probability of past firm performance and past corporate governance mechanism to have a correlation with current performance and current corporate governance.

Table 4-4. Regression Result for Dynamic Model, using OLS Method (Model 1)

VARIABLES	OLS Method		
	TQ	ROA	ROS
BoC Size	0.15 (0.1000)	0.0102 (0.0180)	10.81* (6.14)
BoC Independence	0.309** (0.1520)	0.0037 (0.0274)	-2.063 (9.34)
BoD Size	0.0575 (0.0961)	0.0288* (0.0172)	3.608 (5.90)
Transparency	-0.225 (0.1720)	0.0504* (0.0304)	-31.38*** (10.39)
Foreign Ownership	-0.254* (0.1330)	-0.0207 (0.0240)	3.568 (8.18)
Age	-0.00858 (0.1240)	0.0242 (0.0223)	8.076 (7.63)
Average Sales Growth	0.0678*** (0.0199)	-0.000359 (0.0036)	0.855 (1.22)
ROA	0.263 (0.1890)		16.71 (11.32)
Sales	-0.219*** (0.0296)	0.0278*** (0.0052)	-3.854** (1.81)
Debt	0.311*** (0.0586)	-0.0545*** (0.0103)	0.229 (3.59)
Lag ROA	0.19 (0.2020)	0.542*** (0.0307)	5.994 (12.17)
Lag Tobin's Q	0.769***		

VARIABLES	OLS Method		
	TQ	ROA	ROS
Lag BoC Size	(0.0287) -0.128	-0.00298	-13.14**
Lag BoC Independence	(0.1020) -0.0776	(0.0183) -0.0113	(6.24) 0.781
Lag BoD Size	(0.1220) 0.0701	(0.0219) -0.0162	(7.48) -3.95
Lag Transparency	(0.0963) 0.238	(0.0172) -0.0202	(5.90) 23.18**
Lag Foreign Ownership	(0.1790) 0.162	(0.0316) 0.0178	(10.78) -2.229
Lag Age	(0.1340) 0.00954	(0.0241) -0.014	(8.23) -5.142
Lag Average Sales Growth	(0.0993) 0.00336	(0.0179) 2.23E-05	(6.10) 0.0927
Lag Sales	(0.0021) 0.210***	(0.0004) -0.0268***	(0.13) 4.126**
Lag Debt	(0.0310) -0.171***	(0.0055) 0.0514***	(1.91) -1.554
Lag ROS	(0.0589)	(0.0102)	0.554***
Constant	0.368 (0.3990)	-0.0195 (0.0713)	-16.54 (24.63)
Observations	908	928	928
R-squared	0.56	0.347	0.047
Number of firms	-	-	-

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

**Table 4-5. Regression Result for Dynamic Model, using Fixed Effect Method
(Model 1)**

VARIABLES	Fixed Effect/Random Effect		
	TQ	ROA	ROS
BoC Size	0.134 (0.1450)	0.00667 (0.0262)	28.00** (11.52)
BoC Independence	0.0393 (0.2170)	0.0156 (0.0388)	-14.34 (17.08)
BoD Size	-0.0139 (0.1380)	0.0355 (0.0246)	20.32* (10.86)
Transparency	-0.139 (0.4700)	0.0158 (0.0857)	3.322 (37.65)
Foreign Ownership	-0.15	-0.031	7.155

VARIABLES	Fixed Effect/Random Effect		
	TQ	ROA	ROS
	(0.1790)	(0.0324)	(14.26)
Age	-0.221	-0.166	121.6
	(0.9970)	(0.1790)	(79.32)
Average Sales Growth	0.0668**	0.00644	3.122
	(0.0270)	(0.0049)	(2.16)
ROA	0.521**		4.703
	(0.2360)		(18.76)
Sales	-0.182***	0.0268***	-2.776
	(0.0360)	(0.0064)	(2.87)
Debt	0.293***	-0.113***	-1.16
	(0.0787)	(0.0134)	(6.27)
Lag ROA	0.756***	-0.309***	-9.477
	(0.2520)	(0.0433)	(19.95)
Lag Tobin's Q	-0.256***		
	(0.0587)		
Lag BoC Size	0.219*	0.0365	-0.26
	(0.1280)	(0.0229)	(10.11)
Lag BoC Independence	-0.019	-0.00563	-0.434
	(0.1300)	(0.0235)	(10.34)
Lag BoD Size	-0.0523	-0.0208	2.457
	(0.1160)	(0.0206)	(9.08)
Lag Transparency	0.253	0.0321	87.51
	(0.8810)	(0.1600)	(70.09)
Lag Foreign Ownership	0.186	-0.018	9.553
	(0.1860)	(0.0337)	(14.93)
Lag Age	-0.148	0.0604	-112.2**
	(0.7110)	(0.1280)	(56.62)
Lag Average Sales Growth	-0.00174	-0.000811	-0.436
	(0.0101)	(0.0018)	(0.81)
Lag Sales	0.172***	0.00232	15.72***
	(0.0615)	(0.0108)	(4.87)
Lag Debt	-0.0047	0.0439***	-1.391
	(0.0865)	(0.0152)	(6.71)
Lag ROS			-0.166
			(0.21)
Constant	1.749	-0.361	-354.7**
	(2.0870)	(0.3750)	(165.90)
Observations	908	928	928
R-squared	0.147	0.224	0.07
Number of firms	359	361	361

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

**Table 4-6. Regression Result for Dynamic Model, using OLS and Fixed Effect
Method (Model 2)**

VARIABLES	Transparency and Disclosure	
	OLS	FE
BoC Size	0.0364*	-0.00826
	(0.0196)	(0.0135)
BoC Independence	-0.0242	0.0189
	(0.0298)	(0.0200)
BoD Size	0.00639	0.00883
	(0.0188)	(0.0128)
Tobin's Q	-0.00863	-0.00119
	(0.0066)	(0.0040)
Foreign Ownership	0.0649**	0.00498
	(0.0260)	(0.0165)
Age	0.111***	-0.236**
	(0.0240)	(0.0917)
Average Sales Growth	-0.0013	-0.00169
	(0.0039)	(0.0025)
ROA	0.0571	0.00306
	(0.0370)	(0.0220)
Sales	-0.00532	-0.00175
	(0.0060)	(0.0034)
Debt	-0.00331	-0.00395
	(0.0117)	(0.0074)
Lag Transparency	0.806***	-1.654***
	(0.0222)	(0.0383)
Lag BoC Size	-0.0324	0.0163
	(0.0199)	(0.0119)
Lag BoC Independence	0.0129	-0.0206*
	(0.0239)	(0.0120)
Lag BoD Size	-0.005	-0.00697
	(0.0188)	(0.0107)
Lag Tobins Q	0.0106	0.0024
	(0.0076)	(0.0055)
Lag Foreign Ownership	-0.0752***	-0.00494
	(0.0261)	(0.0173)
Lag Age	-0.0948***	0.137**
	(0.0192)	(0.0655)
Lag Average Sales Growth	0.000917**	2.16E-05
	(0.0004)	(0.0009)
Lag ROA	-0.0271	0.0347
	(0.0396)	(0.0235)
Lag Sales	0.0127**	-0.00586
	(0.0062)	(0.0057)
Lag Debt	-0.00234	0.00196
	(0.0116)	(0.0080)

VARIABLES	Transparency and Disclosure	
	OLS	FE
Constant	-0.112 (0.0780)	2.036*** (0.1720)
Observations	908	908
R-squared	0.68	0.797
Number of Firms	-	359

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.1.3. Estimating a Dynamic Model (Lag Model) of Corporate Governance using GMM Method

Lastly, I apply GMM estimation method (by using command `xtabond` in STATA) to four different sub-models, which differ based on the way I treat explanatory variables. The differences are whether the explanatory use lag and whether it is treated as endogenous variables. In the latter case, I assume that no explanatory variables are predetermined but all are endogenous, as predetermines is a subset of endogeneity, and hence automatically take into account predetermined variables.

The STATA command that I apply for those four sub-models are shown in table below:

Table 4-7. Command Performed in STATA to do GMM-First Difference Estimation Method (Two-Step Procedure)

Sub-Model	Explanatory Variables		Command
	With Lag	Endogenous	
In the presence of heteroskedastic weighting matrix (two-step procedure)			
1	No	No	<code>xtabond y l(0/0).(x) Year, lags(1) vce(robust) twostep</code>
2	Yes	No	<code>xtabond y l(0/1).(x) Year, lags(1) vce(robust) twostep</code>
3	No	Yes	<code>xtabond y l(0/0).(x) Year, lags(1) vce(robust) twostep endogenous(x, lag(1,))</code>
4	Yes	Yes	<code>xtabond y l(0/1).(x) Year, lags(1) vce(robust) twostep endogenous(x, lag(1,))</code>

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA, in order to check whether GMM-difference has corrected for endogeneity in the model or not.

I have also performed the regression in the presence of homoscedastic weighting matrix (one-step procedure) and performed Sargan test (by using command estat sargan in STATA), in order to check that overidentifying restriction is valid within each sub-model.

For model 1, in the presence of heteroscedastic and homoscedastic weighting matrix, sub-model 3, 3 and 4 have been proven to pass both the autocorrelation test and Sargan test, when the performance is measured by Tobin's Q, ROA and ROS (correspondingly). The details of the regression result for model 1 in the presence of heteroskedastic and homoscedastic weighting matrix are shown in Appendix 7 (page 80) and Appendix 8 (page 85).

While for model 2, in the presence of heteroskedastic and homoscedastic weighting matrix, the regression result for sub-model 3 has been proven to pass both autocorrelation test and Sargan test. The detail of the regression result for model 2 in the presence of both heteroskedastic and homoscedastic weighting matrix is shown in Appendix 9 (page 90).

The final regression result for both model 1 and model 2 can be seen in Table 4-8 below. We can see that now after we consider lag length structure and endogeneity, none of the board characteristics has a statistically significant correlation to all measure of firm performance and transparency. However, transparency surprisingly has a statistically significant and negative correlation to Tobin's Q but no correlation to ROA and ROS.

The same goes for the control variable, where none of them has a statistically significant correlation to firm performance, except for debt, lag transparency and lag ROS. Debt is statistically significant and negatively correlated to ROA, which

implies adverse effect it has on accounting performance, as the financially-distressed firm would probably face difficulties to boost their revenues and growth opportunities. Lag transparency surprisingly has statistically significant and negative correlation to both Tobin's Q and transparency, while lag ROS has statistically significant and negative correlation to ROS.

Table 4-8. Regression Result for Dynamic Model, using GMM Method (Model 1 & 2)

VARIABLES	MODEL 1			MODEL 2
	TQ	ROA	ROS	Transparency
BoC Size	0.662 (0.479)	0.0155 (0.0536)	-0.522 (5.35)	0.0168 (0.0599)
BoC Independence	-0.0106 (1.047)	-0.0136 (0.19)	-0.468 (4.42)	-0.0513 (0.1220)
BoD Size	-0.461 (0.425)	0.0126 (0.0635)	-1.137 (3.34)	-0.03 (0.0405)
Transparency	-14.40* (7.849)	-0.479 (0.62)	1.763 (6.83)	
Tobin's Q				-0.0143 (0.0342)
Foreign Ownership	-1.016 (0.748)	-0.0726 (0.102)	0.561 (4.96)	-0.0516 (0.0775)
Age	10.64 (9.897)	2.531 (1.714)	-3.633 (37.30)	0.423 (1.3020)
Average Sales Growth	0.0125 (0.083)	-0.00351 (0.012)	0.188 (0.86)	-4.54E-05 (0.0148)
ROA	0.894 (1.428)		7.013 (6.91)	0.195 (0.3570)
Sales	-0.133 (0.156)	0.0301 (0.0208)	-0.841 (3.61)	-0.0032 (0.0142)
Debt	0.32 (0.661)	-0.132** (0.0607)	2.492 (2.58)	0.0359 (0.0727)
Lag ROA	3.231 (3.068)	-0.0544 (0.133)	2.772 (4.82)	0.331 (0.4280)
Lag Tobin's Q	0.88 (0.831)			0.0312 (0.0967)
Lag Transparency	-34.03* (19.070)	-1.158 (1.568)	4.08 (17.99)	-2.586*** (0.2550)
Lag BoC Size	3.026 (1.946)	0.00425 (0.198)	-0.903 (3.47)	0.179 (0.2150)
Lag BoC Independence	-2.853 (2.713)	-0.0814 (0.328)	0.00287 (1.49)	-0.265 (0.2680)
Lag BoD Size	-1.489 (1.435)	-0.141 (0.222)	-0.0972 (2.44)	-0.0656 (0.1420)

VARIABLES	MODEL 1			MODEL 2
	TQ	ROA	ROS	Transparency
Lag Foreign Ownership	-0.597 (1.367)	-0.0988 (0.185)	1.417 (6.45)	0.00134 (0.1310)
Lag Age	-6.42 (6.235)	-1.636 (1.085)	3.095 (23.40)	-0.225 (0.8170)
Lag Average Sales Growth	0.0103 (0.017)	-0.00246 (0.0042)	0.00427 (0.29)	0.00125 (0.0019)
Lag Sales	0.371 (0.475)	-0.0308 (0.0691)	1.819 (2.23)	0.0219 (0.0701)
Lag Debt	0.125 (1.156)	0.217 (0.187)	0.376 (2.27)	-0.127 (0.1920)
Lag ROS			-0.760*** (0.17)	
Year	-0.644** (0.29)	-0.0695* (0.0381)	0.00765 (1.07)	-0.0357 (0.0267)
Constant	1,311** (587.3)	138.4* (75.73)	(52) (2107)	73.26 (52.93)
Observations	549	567	567	549
Number of Firm	316	319	319	316

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

As I have mentioned previously, the transparency variable is only available for year 2014-2015. Therefore, to check for robustness, I will also estimate the model without including the transparency variable.

Similar to previous result when still including transparency variable, for model 1, in the presence of heteroscedastic and homoscedastic weighting matrix, sub-model 3, 3 and 4 have been proven to pass both the autocorrelation test and Sargan test, when the performance is measured using Tobin's Q, ROA and ROS (correspondingly). The detail of the regression result for model 1 in the presence of heteroskedastic and homoscedastic weighting matrix is shown in Appendix 10 (page 94) and Appendix 11 (page 98). I do not perform the regression for model 2 as the model includes transparency variables.

The final regression result can be seen in Table 4-9 below. We can see that similar to previous result in Table 4-8, board characteristics still has no statistically significant correlation to all measure of firm performance.

**Table 4-9. Regression Result for Dynamic Model, using GMM Method, by
excluding transparency variables (Model 1)**

VARIABLES	MODEL 1		
	TQ	ROA	ROS
BoC Size	-0.158 (0.412)	0.00358 (0.0637)	0.141 (5.012)
BoC Independence	0.111 (1.609)	-0.0425 (0.1950)	-0.429 (4.313)
BoD Size	0.226 (0.498)	0.0428 (0.0508)	-1.365 (3.441)
Foreign Ownership	-0.25 (1.209)	-0.0613 (0.1220)	0.489 (4.312)
Age	11.01 (13.380)	2.284 (1.6130)	4.388 (36.300)
Average Sales Growth	0.0239 (0.096)	0.00325 (0.0112)	0.011 (0.771)
ROA	1.055 (1.419)		5.708 (6.543)
Sales	-0.147 (0.213)	0.0266 (0.0223)	-0.162 (3.260)
Debt	0.355 (0.431)	-0.131** (0.0513)	2.291 (2.381)
Lag ROA	0.933 (2.455)	-0.107 (0.1600)	2.851 (5.104)
Lag Tobin's Q	-0.346 (0.496)		
Lag BoC Size	-0.689 (1.466)	-0.0291 (0.2300)	-0.603 (3.105)
Lag BoC Independence	0.794 (3.349)	-0.0673 (0.3630)	0.0292 (1.291)
Lag BoD Size	0.383 (1.399)	-0.00803 (0.1490)	-0.51 (2.559)
Lag Foreign Ownership	-0.222 (2.131)	-0.121 (0.1880)	0.955 (5.775)
Lag Age	-7.148 (8.297)	-1.482 (1.0250)	-1.656 (22.390)
Lag Average Sales Growth	-0.00142 (0.014)	-0.00267 (0.0046)	-0.0114 (0.339)
Lag Sales	0.191 (0.472)	-0.0375 (0.0615)	1.402 (2.589)
Lag Debt	-0.155 (1.262)	0.203 (0.1980)	0.606 (2.529)
Lag ROS			-0.750*** (0.172)
Year	-0.292 (0.307)	-0.0535 (0.0342)	-0.235 (0.869)

VARIABLES	MODEL 1		
	TQ	ROA	ROS
Constant	576.3 (604.800)	106 (67.26)	425 (1697)
Observations	549	567	567
Number of Firm	316	319	319

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.1.4. Conclusion

When I compare the result of the three estimations method, I found that when I estimate the static model using OLS and fixed effect, there is statistically significant relations between board characteristics, transparency and firm performance. While when I estimate the dynamic model using OLS and fixed effect, I start to see clear indication regarding the importance of considering a dynamic model in the governance/performance relation, which is evident by the significant increase in R-square and significant correlation between some of the lag variables with dependent variables.

And finally, when I use GMM, where I have accounted for endogeneity by controlling the lag length structure and instrument the explanatory variables, none of the board characteristics and transparency has a statistically significant relationship with any measure of firm performance and transparency. Transparency also surprisingly has statistically significant and negative correlation with Tobin's Q, but no correlation with ROA and ROS.

Among the three different results above, GMM has provided the most assurance as it has taken into account both time-invariant and time-variant unobservable errors and also reverse causality, unlike fixed-effect and OLS method. We may also draw a conclusion that there is no robust evidence of correlation between board characteristics and firm performance and transparency.

4.2. Discussion

The first finding where board characteristics have no statistically significant correlation between both firm performance and transparency is contrary to hypothesis 1, 2, 3, 5a, 5b, and 5c. Surprisingly, the size of the board and the independence of BoC are proven to have no statistically significant correlation to firm performance and transparency. This suggests that the size of the board and the proportion of independent commissioners are not associated with superior monitoring and advising roles and hence, do not add value. Several factors may have contributed to these findings, such as follow:

4.2.1. Lack of Government Enforcement regarding the Power of BoC and Transparency

Lack of government enforcement regarding the power of BoC

As what has been mentioned in the previous section, BoC in Indonesia has weaker power than the one in Germany, as it has no right that enables them to control management. The regulation is also more general than the one imposed on Germany Supervisory Board. These whole facts may contribute to the weak supervisory function possessed by BoC in Indonesia, which at the end contributes to weak effect it has over firm performance and transparency.

Regarding this, the government has indeed made an effort to enhance the strength of supporting committees under BoC supervision, but however, the result is not yet visible in Indonesia. Probably due to the fact that such regulations are not actively enforced with an incriminated penalty which may burden the listed companies more.

Lack of government enforcement regarding transparency

As the government enforcement for transparency is not strong enough, the size of the board and the appearance of more independent parties may not always

correlate positively with better transparency. Berglöf and Pajuste (2005) explained that there is a possibility that the government does not enforce the corporate governance law and regulation due to the fear of driving the companies out of stock exchange, as the disclosure requirement is becoming too much compared to the benefit.

It is reasonable to apply such argument in Indonesia as several small and medium listed companies have complained to OJK about some of the disclosure requirement which they consider as too tight for small and medium companies, which is not balanced with the benefit they acquire by being listed companies. Regarding this, the government should weigh the cost and benefit of enforcing a governance regulation thoroughly.

4.2.2. The Practice of Choosing Independent Commissioners among Listed Companies

As has been mentioned in the previous section, OJK has made it mandatory for listed companies in Indonesia to have independent commissioners at least 30% of total BoC. The regulation has described the definition of independent commissioners. However, the specific criteria are not clearly defined by the regulation. This allows for various practices to exist across different listed companies in Indonesia.

Practice in family-owned listed companies

As most listed companies in Indonesia are family-controlled (Claessens et al., 2000), companies might have chosen the independent commissioner with less strict criteria since family-controlled firms might dislike over monitoring from the supervisory board. At the same time, independent commissioners are also not employed by family firms to make agency problems exacerbated (Darmadi, 2012).

Other common practice in listed companies

Despite the fact that family-owned-listed companies may choose independent commissioners with less strict criteria, there are also other common practices among listed companies to choose independent commissioners from a diverse background, such as academic, politics, or ex-government. The firm may choose someone from specific academic background since his expertise is deemed as industry-appropriate. Or someone from political background since his/her networking may benefit the company. Or someone from government background so that they can help smooth out the relationship between firms and government, either by aligning firm's strategy with regulations or by formulating a public policy that serves firm's interest (Schaede, 1995).

This kind of independent commissioners may not be adequately equipped or fully aware of the knowledge of practicing transparency in the company. This option comes at the cost of being perceived as less professional by the investor, as the independent commissioner might come from an irrelevant background and lack a proper knowledge related to the firm and industry (Fan, Wong, & Zhang, 2007).

Regarding independent commissioners chosen from the political background, it also has been proven that politically-connected-firms underperform non-politically connected firms by 14.8 percent, which implies that politicians worsen agency problems by forcing the management to engage in self-interested actions that protect the interests of politicians, hence lowering firm performance (Saeed, Belghitar, & Clark, 2015)

4.2.3. Independent Commissioner Remuneration Issue

Independent Commissioner remuneration is also an important topic, as independent commissioner's judgment may be clouded if he receives a significant percentage of his total income in the form of a commissioner's fee (World Bank, 2014). Sometimes independent commissioners for listed companies in Indonesia,

especially the smaller one, have young independent commissioners. It might be an issue as it is sometimes hard to assess the independence status of commissioners from income (primarily from commissioner fee) when he/she has a young age. In the case of this study, this fact may lead us to be cautious in assessing how independent commissioner works in Indonesia.

4.2.4. How Market Participants See Independent Board Member

If we explore further on the reality of independent commissioner in Indonesia, the quality of Independent Commissioners in Indonesia is somewhat questionable. One of the examples is if we see the previous report by World Bank, which highlighted the fact that committee audit in Indonesia consists of Independent Commissioner as chairman and outside experts who are not on the BoC or BoD as members.

In many other countries, audit committees are composed exclusively of board members, with a majority of independents. They may consult outside experts, but only experts also on the board may be members. This allows for independent board members to play a leading role while ensuring that full responsibility for crucial decisions remains with the board. In Indonesia, market participants were skeptical that commissioners could play a useful role on technical committees without outside assistance (World Bank, 2010).

4.2.5. Nature of Indonesia as a Civil-Law Country

As mentioned in the previous section, the average compliance rate regarding transparency and disclosure for listed companies in Indonesia is 68% in 2015 and 62.44% in 2014. Further explanation can be offered by trying to identify the country-specific attributes, as the previous study has demonstrated that country-level variables are the most crucial determinant of a firm's governance disclosure. Such

country-specific attributes which account for transparency differently may come from the country's origin of the legal system: the civil law or common law.

A civil law country prefers confidentiality and the restriction of disclosure of information about the business only to those who are closely involved with its management and financing, while common law countries are more transparent, open and adopt a publicly accountable approach (Ben Othman & Zeghal, 2008). Considering Indonesia as a civil-law-country, one may also consider it as the reason why the larger size of the board or higher portion of independent parties may not always guarantee better transparency in Indonesia.

Different study concerning legal system also argued that governance transparency factor (the intensity and timeliness of financial disclosures used by outside investors) is primarily related to a country's legal/judicial regime, which will be higher in the countries with a legal/judicial regime characterized by a common law and high judicial efficiency (Bushman, Piotroski, & Smith, 2004).

Cuervo (2002) also mentioned that civil law which is adopted by most countries in Europe cause lower enforcement of norms. Hence, he argued that it is better for Europe countries to rely on the market of corporate control instead of a code of corporate governance, as such code will have a lower enforcement rate. In the case of Indonesia, this may also contribute to the reason of why corporate governance enforcement in Indonesia tends to be lower than its peer countries. Applying market for corporate control may also be an option, but however, it seems that it still needs a long time to go.

Aksu and Kosedag (2006) also mention the case from Turkey as an example of civil-law country, which has historically had a weak culture of corporate governance and transparency. The author explained that Turkey has always been a civil law country and has had a very late start in the liberalization of its economy, the establishment of its stock market (1986), and financial reporting standards based

on generally accepted accounting principles and the concept of full and fair disclosure (1994).

4.2.6. How Transparency is Perceived in Indonesia

The second finding where transparency surprisingly has statistically significant and negative correlation to Tobin's Q but no correlation to ROA and ROS, is also contrary to hypothesis 4. The first fact is in line with the previous study by Siagian, Siregar, and Rahadian (2013) which investigated the correlation between reporting quality and Tobin's Q, among listed firms in Indonesia during 2003-2004. The study suggested that firms disclosing more information consistent with the regulation tend to be firms with a lower value, as they see this as an opportunity to gain market value by complying more with the regulation. Firms with lower value have more incentive to adhere to corporate governance regulation. In addition, Aksu and Kosedag (2006) also found that among listed firms in Istanbul Stock Exchange, transparency is considered as the effort of undervalued firms to counter the negative assessment by market participants.

Further, the fact that transparency has no statistically significant correlation to ROA and ROS also suggest that the level of transparency has no correlation with firm accounting performance. One may still argue that Indonesia has low corporate governance enforcement rate or low transparency rate. But despite such fact, the requirement to disclose corporate governance information has been determined as mandatory by the government. Hence, it does not rule out the possibility that most listed companies may have tried to comply with the requirements up to certain level, as it is mandatory by the regulations. The final transparency rate may not be high, but it is the result of listed companies' effort to comply with the requirements, which is not affected by their accounting performance.

CHAPTER 5. CONCLUSION

There are many components that construct good corporate governance, but this paper tries to focus on firms' board characteristics (BoC size, BoC independence and BoD size) and transparency, and investigate how they interact with each other and if they correlate to firms' performance. The result is expected to vary as board characteristics and transparency are a country-specific attribute.

As previous studies in this area were mostly performed in a one-tier board structure country, the main contribution of this study is to address such issue by performing the study in a two-tier board structure country, Indonesia. Further, previous studies mostly considered a static model of corporate governance and estimated the static model using OLS and FE. However, this study considers a dynamic model (lag model) of corporate governance and estimate it using GMM, which is more reliable as it accounts for endogeneity and simultaneity, which are common in a dynamic model (lag model) of corporate governance.

Confirming Wintoki et al. (2012), the comparison between the regression result using OLS, fixed-effect and GMM estimation method shows that there is no robust evidence of correlation between board characteristics and firm performance and transparency. Such conclusion is indicated by the following findings:

1. When we estimate the static model using OLS and fixed effect, we found statistically significant relations between board characteristics, transparency and firm performance, which is similar to result from the previous corporate governance-related study, especially in two-tier board structure country such as in Indonesia.
2. However, when we estimate the dynamic model (lag model) using OLS and fixed effect, we start to see a clear indication of the importance of dynamics in the governance/performance relation, which is evident by the appearance of:

- a. A significant increase in R-square
 - b. Statistically significant correlation between lag variables (dependent and independent) with dependent variables
3. And finally, when we estimate the dynamic model (lag model) using GMM, we found no statistically significant correlation between board characteristic and firm performance. Further, transparency also found to have a negative correlation to market valuation, but no correlation to accounting valuation.

Based on the three different results above, we may conclude that there is no robust evidence of correlation between the board characteristics and firm performance and transparency. However, we may also note that GMM has provided the most assurance as it has taken into account both time-invariant and time-variant unobservable errors and also reverse causality, unlike fixed-effect and OLS method. Therefore, we may imply several things from GMM result as follow:

1. Board characteristics have no statistically significant correlation to firm performance is probably due to:
 - a. Lack of government enforcement regarding the power of BoC and transparency
 - b. The practice of choosing independent commissioners among listed companies in Indonesia
 - c. The independent commissioner's remuneration issue
 - d. Nature of Indonesia as a civil law country
2. Transparency is found to have a negative correlation to market valuation, may indicate listed companies in Indonesia with low firm value have more incentive to adhere to transparency regulation. While no correlation between transparency and accounting valuation may indicate that listed companies in Indonesia adhere to transparency regulations just to fulfill a certain standard of obligation.

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APPENDIX

Appendix 1. The Type of Committees Under BoC Supervision in Indonesia and other Asian Countries

Based on a survey performed by OECD to 14 Asian countries, Indonesia is the only two-tier board structure country which already makes it mandatory for the listed companies to have both audit committee, nomination committee and remuneration committee, compared to the other Asian two-tier board structure countries (such as China, Chinese Taipei and Vietnam).

No	Asian Countries	Audit Committee	Nomination Committee	Remuneration Committee	Risk Management Committee	Other Committee
1	Bangladesh	✓	-	-	-	-
2	China	✓	-	-	-	Strategic management
3	Chinese Taipei	✓	-	✓	-	-
4	Hongkong, China	✓	✓	✓	-	-
5	India	✓	✓	✓	✓ ¹	Stakeholders Grievances
6	Indonesia	✓	✓	✓	✓ ⁷	Risk monitoring ⁷ Corporate Governance ²
7	Korea	✓	✓	✓ ³	✓ ³	-
8	Malaysia	✓	✓	✓ ⁴	✓ ⁴	N/A
9	Mongolia	✓	✓	✓	-	-
10	Pakistan	✓	- ⁵	✓	-	Human Resource Governance, Related Party Transactions
11	Phillipines	✓	✓	-	✓ ⁷	-
12	Singapore	✓	✓	✓	✓	-
13	Thailand	✓	- ⁶	- ⁶	✓ ⁷	Risk management ⁷
14	Vietnam	✓	-	- ⁶	-	-

Source: OECD Survey of Corporate Governance Frameworks in Asia 2017 (OECD, 2017b)

¹ Top 100 listed companies by market cap

² For SOEs

³ Financial companies

⁴ For financial institutions

⁵ Except for public listed companies

⁶ Recommended

⁷ For banks

Appendix 2. Minimum Number or Ratio of Independent Members in Indonesia and Other Jurisdictions

Based on a survey performed by OECD to forty-seven jurisdictions, Indonesia is one of the few countries which requires a 'higher' proportion for its independent member in committee through the regulation (100% for Audit Committee and 66% for Nomination and Remuneration committee), together with Canada, Hungary, Italy, Mexico, Slovenia, South Africa, Turkey and United States.

There are also some other countries which requires similar high proportion of independence committee member, but instead of legalizing it in through regulation, they just recommend in through the corporate governance code, for example Brazil, Czech Republic, Ireland, Russia, Switzerland and United Kingdom.

No	Countries	Remarks		
		1	2	3
1	Argentina	66%	(66%)	(66%)
2	Australia	(>50%)	(>50%)	(>50%)
3	Austria	1 OR 2	-	(50%)
4	Belgium	1	(50%)	50%
5	Brazil	(100%)	-	(100%)
6	Canada	100%	(100%)	(100%)
7	Chile	50%	-	50%
8	China	(>50%)	(>50%)	(>50%)
9	Colombia	2	(100%)	(1)
10	Czech Republic	(100%)	(100%)	(100%)
11	Denmark	50%	(50%)	(50%)
12	Estonia	-	-	-
13	Finland	(>50%)	(>50%)	(>50%)
14	France	(66%)	(50%)	(50%)
15	Germany	1	(100%)	-
16	Greece	50%	(1)	(50%)
17	Hong Kong, China	>50%	(>50%)	>50%
18	Hungary	100%	(50%)	(50%)
19	Iceland	(50%)	(50%)	(50%)
20	India	66%	(50%)	(50%)
21	Indonesia	100%	(66%)	(66%)
22	Ireland	1 (100%)	(50%)	(100%)
23	Israel	50%	-	50%
24	Italy	100%	(>50%)	(100% or >50%, with independent Chairman)
25	Japan	50%	50%	50%
26	Korea	(66%)	(50%)	(100%)
27	Latvia	1	-	-
28	Lithuania	1	(50%)	-
29	Luxembourg	(50%)	-	-

No	Countries	Remarks		
		1	2	3
30	Mexico	100%	-	(>50%)
31	Netherlands	>50%	(All-1)	(All-1)
32	New Zealand	(50%)	(50%)	-
33	Norway	50%	(50%)	(100%)
34	Poland	1	-	-
35	Portugal	51%	-	(100%)
36	Russia	>50%	>50%	>50%
		(100%)	(>50%)	(100%)
37	Saudi Arabia	-	-	-
38	Singapore	50%	(50%)	(50%)
39	Slovak Republic	50%	-	(100%)
40	Slovenia	100%	(100%)	(100%)
41	South Africa	100%	(1)	(>50% nonexec)
42	Spain	>50%	(2)	(2)
43	Sweden		(>50%)	All except chair
44	Switzerland	(100%)	(>50%)	(100%)
45	Turkey	100%	the chair	the chair
46	United Kingdom	(100%)	(>50%)	(100%)
47	United States	100%	100%	100%

Source: OECD Corporate Governance Factbook 2017 (OECD, 2017a)

Remarks:

1 : Audit Committee

2 : Nomination Committee

3 : Remuneration Committee

() : Requirement by the Code or Principle

“-“: Absence of specific requirement or recommendation

Appendix 3. Governance of Internal Control and Risk Management in Indonesia and The Other Jurisdiction

Based on a survey performed by OECD to forty-seven jurisdictions, Indonesia is the only jurisdiction which legally regulates specific requirements regarding governance of internal control and risk management, as follow:

1. Specific provisions which are describing **'Board responsibilities for risk management.'**
2. Specific provisions which are describing **'Implementation of the internal control and risk management system.'**
3. Including **risk management explicitly in the role of audit committee**, through OJK Regulation Number 55 concerning The Formation and Operating Procedure of Audit Committee
4. **Internal auditors as a party in charge of risk management**, which is regulated through OJK Regulation Number 56 concerning The Formation of Audit Internal Unit and The Policy of Audit Internal Charter

The other jurisdictions only enforce some (2 or 3) of the criteria above through regulation, while the others just recommend it through the corporate governance codes.

No	Jurisdiction	Remarks				
		1	2	3	4	5
1	Argentina	C	C	L/R	C	C
2	Australia	C	C	C	C	
3	Austria	L/C	L	L/C	-	-
4	Belgium	L	L	L	-	-
5	Brazil	L	-	C	-	-
6	Canada			-		
7	Chile	C	C	-	-	-
8	China	L	L	C	-	-
9	Colombia	L	L	L	L	C
10	Republic	C	C	-	-	-
11	Denmark	L	L	L		
12	Estonia			-		
13	Finland	C	C	C	-	-
14	France	L		L		
15	Germany	L/C	L/C	L/C	-	-
16	Greece			C		
17	Hong Kong, China	C	C	C	-	-
18	Hungary	C	C	-	-	C
19	Iceland			C		
20	India	L/R	L/R	L/R	R	-
21	Indonesia	L	L	L	L	L
22	Ireland	C	C	C	-	-
23	Israel	-	R	L	-	L
24	Italy	C	C	L	C	C
25	Japan	L	L	-	-	-
26	Korea	C	-	-	-	-

No	Jurisdiction	Remarks				
		1	2	3	4	5
27	Latvia	C	C	L	-	-
28	Lithuania	-	-	C	-	-
29	Luxembourg			C		
30	Mexico	L	L	L	-	-
31	Netherlands	C	C	C	-	-
32	New Zealand	C	C	-	-	-
33	Norway	C	L/C	L	-	-
34	Poland	-	L/C	L	-	-
35	Portugal	L	L	-	-	-
36	Russia	R/C	R/C	R/C	C	-
37	Saudi Arabia	C	L/C	-		
38	Singapore	C	R/C	C	C	C
39	Slovak Republic			-		
40	Slovenia	C	C	L	-	-
41	South Africa	C	C	C	C	C
42	Spain	L	L/C	L/C	-	-
43	Sweden	C	C	-	-	-
44	Switzerland	L	C	C	-	-
45	Turkey	L	L	-	L	-
46	United Kingdom	C	C	C	-	-
47	United States	R	L/R	L/R	-	-

Source: OECD Corporate Governance Factbook 2017 (OECD, 2017a)

Remarks:

- 1: Board responsibility for risk management
- 2: Implementation of the internal control and risk management system
- 3: Risk management role of audit committee, which denotes that risk management is specifically included in the role of audit committee
- 4: Establishment of separate risk committee
- 5: Chief risk officers, which denotes that internal auditors are in charge of risk management

L: Required by law or regulations

C: Recommendation by codes or principles

R: Required by listing rule

“-“: No specific requirement or recommendation

Appendix 4. Key Performance Indicator to Assess BoC Performance

(Example from Company A in Indonesia)

In Annual Report 2014, Company A disclosed key performance indicator which is used to assess BoC performance. Those indicators showed that the majority of the BoC performance evaluation comes from the achievement of supporting committees under BoC supervision (Audit Committee, GCG-NR Committee and Risk Management Committee). Further, we can also note that one of other evaluation comes from the accomplishment of monitoring effectiveness for GCG practices.

No	Key Performance Indicator	Weight (%)	Score Achievement	Weight Indicator X Score Achievement
1	Accomplishment of the effectiveness of GCG practices monitoring	7	100	7
2	Establishment of Key Performance Indicator (KPI) of the BoD in March each year and quarterly financial evaluation	7	100	7
3	Execution of the Company's Annual Budget and Work Plan	6	100	6
4	Execution of the Company's Business Development Plan	5	94.45	4.72
5	Execution Special Assignments	5	100	5
6	Monitored the effectiveness of the CSR & Post Mining Environment Implementation	4	100	4
7	Execution of the Company's Long Term Planning	3	100	3
8	BoC's Response to the BOD's Quarterly and Annual Reports	3	100	3
9	Achievement of the Audit Committee Performance	20	125.72	25.14
10	Achievement of the GCG-NR Committee Performance	20	100.45	20.09
11	Achievement of the Risk Management Committee Performance	20	96.37	19.27
Total		100		104.23

Source: Annual Report 2015 of Company A in Indonesia

**Appendix 5. Agenda of BoC Meeting (Example from Company A in
Indonesia)**

Company A disclosed their BoC meeting agenda in the Annual Report, where most of those agendas consist of the progress report or strategic issue delivered by their supporting committees.

No	Date	Agenda
1	January 21, 2015	<ul style="list-style-type: none"> • Strategic Issue presented by Audit Committee • Whistleblowing Team Report presented by the Chairman of Whistleblowing Team
2	February 27, 2015	Strategic issue presented by GCG-NR committee which urgent case and require attention by Commissioner to be delivered to Director in Joint Meeting of BOC-BOD presented by GCG-NR Committee
3	March 26, 2015	Strategic Issue which Require Attention of the Board of Commissioner presented by Audit Committee and Risk Management Committee
4	May 27, 2015	Presentation of the discussion result of Supporting Committee of Board of Commissioners
5	October 19, 2015	<ul style="list-style-type: none"> • Audit Committee Progress Report and Risk Management Progress Report • GCG-NR Committee Progress Report
6	December 21, 2015	<ul style="list-style-type: none"> • Report of the Site Visit of the BoC to North Maluku Mining Business Unit • GCG Implementation Planning to Subsidiary and sub-subsubsidiary

Source: Annual Report 2015 of Company A in Indonesia

Appendix 6. Agenda of BoC and BoD meeting (Example from Company A in Indonesia)

Company A disclosed agenda of combined BoD and BoC meeting in their Annual Report 2015, where some of the agenda showed that BoC delivered their concern regarding corporate governance.

No	Date	Agenda
1	February 27, 2015	Result of Good Corporate Governance Assessment 2014 Presented by SVP Corporate Secretary
2	October 19, 2015	Corporate Governance Perception Index (“CGPI”) 2014 Observation relating to CGPI Ranking to Board of Commissioners and Board of Director with the theme “Corporate Governance in the Perspective of Value Creation”, by IICG (Indonesian Institute of Corporate Governance)
3	December 21, 2015	Company A’s Planning and Strategy in Making Annual Report 2015

Source: Annual Report 2015 of Company A in Indonesia

Appendix 7. Regression Result Using GMM Method – Model 1 (in the Presence of Heteroscedastic Weighting Matrix)

In this appendix, the regression is performed in the presence of heteroscedastic matrix, which is using two-step procedure.

GMM-first difference estimation method is applied to four different sub-models, which differ based on the way explanatory variables are treated, with description as follow:

1. Sub-model 1: explanatory variables are without lag and are not treated as endogenous variables
2. Sub-model 2: explanatory variables are with lag and are not treated as endogenous variables
3. Sub-model 3: explanatory variables are without lag and are treated as endogenous variables
4. Sub-model 4: explanatory variables are with lag and are treated as endogenous variables

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA. I choose result from sub-models 3, 3 and 4 when firm performance is measured by Tobins' Q, ROA and ROS (correspondingly), as the p-value in autocorrelation test result is higher than 10% and the explanatory variables are also treated as endogenous variables.

a. Firm performance: Tobins' Q

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
BoC Size	0.132 (0.159)	0.204 (0.177)	0.662 (0.479)	-0.0109 (0.144)
BoC Independence	0.333 (0.308)	0.45 (0.329)	-0.0106 (1.047)	-0.0244 (0.227)
BoD Size	0.00892 (0.118)	-0.0171 (0.124)	-0.461 (0.425)	-0.071 (0.122)
Transparency	-0.295* (0.174)	-0.679** (0.308)	-14.40* (7.849)	-0.467 (0.305)
Foreign Ownership	-0.237 (0.181)	-0.263 (0.189)	-1.016 (0.748)	-0.193 (0.201)
Age	-0.0548 (0.267)	1.64 (1.851)	10.64 (9.897)	0.693 (1.735)
Average Sales Growth	0.0406* (0.022)	0.0375 (0.040)	0.0125 (0.083)	0.026 (0.070)
ROA	-0.0855 (0.336)	0.33 (0.265)	0.894 (1.428)	0.414 (0.326)
Sales	-0.255** (0.110)	-0.177 (0.125)	-0.133 (0.156)	-0.0697 (0.153)
Debt	0.314 (0.254)	0.401*** (0.131)	0.32 (0.661)	0.287* (0.171)
Lag ROA		0.974 (0.709)	3.231 (3.068)	0.0286 (0.607)
Lag Tobin's Q	0.378	0.347	0.88	-0.116

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
Lag BoC Size	(0.253)	(0.223)	(0.831)	(0.258)
Lag BoC Independence		0.332 (0.226)	3.026 (1.946)	-0.0554 (0.148)
Lag BoD Size		-0.0335 (0.107)	-2.853 (2.713)	-0.0207 (0.093)
Lag Transparency		0.0127 (0.099)	-1.489 (1.435)	-0.0641 (0.094)
Lag Foreign Ownership		-1.072 (0.709)	-34.03* (19.070)	-0.476 (0.708)
Lag Age		0.149 (0.169)	-0.597 (1.367)	-0.0851 (0.190)
Lag Average Sales Growth		-1.071 (1.212)	-6.42 (6.235)	-0.678 (1.076)
Lag Sales		0.000108 (0.008)	0.0103 (0.017)	-0.00551 (0.008)
Lag Debt		0.117 (0.140)	0.371 (0.475)	0.144 (0.149)
Year	-0.0432	-0.0936** (0.116)	-0.644** (1.156)	-0.0514 (0.125)
Constant	-0.0294	-0.0435	-0.29	-0.0463
	94.64	190.7**	1,311**	101.7
	-58.32	-86.37	-587.3	-91.78
Observations	561	549	549	549
Number of Firm	325	316	316	316
Autocorrelation test result	1	2	3	4
z	-1.7311	-1.901	-0.72844	-1.401
p>z	0.0834	0.0573	0.4663	0.1612

b. Firm performance: ROA

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
BoC Size	-0.0127 (0.0225)	0.0109 (0.0251)	0.0155 (0.0536)	-0.0126 (0.0214)
BoC Independence	-0.00318 (0.0241)	-5.76E-05 (0.0262)	-0.0136 (0.19)	0.0142 (0.0251)
BoD Size	0.0329 (0.0227)	0.0322 (0.0237)	0.0126 (0.0635)	0.0149 (0.0202)
Transparency	0.029 (0.0363)	0.0126 (0.0885)	-0.479 (0.62)	0.00114 (0.0645)
Foreign Ownership	-0.00963 (0.0413)	-0.0245 (0.0425)	-0.0726 (0.102)	0.000108 (0.034)
Age	-0.0635* (0.0328)	-0.0393 (0.262)	2.531 (1.714)	-0.0352 (0.227)
Average Sales Growth	0.00499* (0.00287)	0.00347 (0.005)	-0.00351 (0.012)	0.0051 (0.0051)

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
ROA				
Sales	0.0214 (0.0143)	0.0293* (0.0167)	0.0301 (0.0208)	0.0202 (0.0163)
Debt	-0.106*** (0.0254)	-0.116*** (0.0133)	-0.132** (0.0607)	-0.111*** (0.0102)
Lag ROA	-0.109 (0.126)	-0.0451 (0.107)	-0.0544 (0.133)	-0.0243 (0.116)
Lag Tobin's Q				
Lag BoC Size		0.0522* (0.0305)	0.00425 (0.198)	0.0386 (0.03)
Lag BoC Independence		-0.00678 (0.0145)	-0.0814 (0.328)	0.000335 (0.0165)
Lag BoD Size		-0.0276 (0.0328)	-0.141 (0.222)	-0.0129 (0.0232)
Lag Transparency		0.0208 (0.223)	-1.158 (1.568)	-0.105 (0.154)
Lag Foreign Ownership		0.0128 (0.0302)	-0.0988 (0.185)	0.0103 (0.0257)
Lag Age		-0.0134 (0.16)	-1.636 (1.085)	-0.00919 (0.141)
Lag Average Sales Growth		-0.00057 (0.000418)	-0.00246 (0.0042)	-0.000504 (0.000367)
Lag Sales		-0.00725 (0.0154)	-0.0308 (0.0691)	-0.000582 (0.00872)
Lag Debt		0.0607*** (0.0191)	0.217 (0.187)	0.0487** (0.022)
Year	-0.00361 (0.00515)	-0.00396 (0.00931)	-0.0695* (0.0381)	-0.00735 (0.00753)
Constant	6.944 (10.32)	7.682 (18.56)	138.4* (75.73)	14.55 (14.99)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Autocorrelation test result	1	2	3	4
z	-1.2551	-1.6313	-0.72193	-1.6905
p>z	0.2094	0.1028	0.4703	0.0909

c. Firm performance: ROS

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
BoC Size	4.566 (13.22)	7.644 (14.99)	8.516 (24.57)	-0.522 (5.35)
BoC Independence	-0.596	-0.996	-9.216	-0.468

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
	(5.69)	(5.62)	(53.68)	(4.42)
BoD Size	2.825	2.037	-11.72	-1.137
	(7.33)	(9.80)	(21.39)	(3.34)
Transparency	-7.655	-2.729	-153.3	1.763
	(13.15)	(10.45)	(236.10)	(6.83)
Foreign Ownership	0.58	9.831	3.98	0.561
	(3.25)	(8.53)	(28.49)	(4.96)
Age	-6.938	-44.77	-155.4	-3.633
	(17.14)	(78.54)	(532.90)	(37.30)
Average Sales Growth	-0.919	1.537	-1.032	0.188
	(5.27)	(1.51)	(5.44)	(0.86)
ROA	7.07	12.65	68.25	7.013
	(6.38)	(8.55)	(87.82)	(6.91)
Sales	-2.054	-4.035	-4.9	-0.841
	(3.80)	(4.10)	(5.49)	(3.61)
Debt	3.293	3.822	12.03	2.492
	(2.22)	(3.55)	(13.70)	(2.58)
Lag ROA		10.03	114.2	2.772
		(6.70)	(161.70)	(4.82)
Lag Tobin's Q				
Lag BoC Size		5.821	40.66	-0.903
		(6.88)	(64.93)	(3.47)
Lag BoC Independence		-1.268	-30.53	0.00287
		(1.73)	(109.80)	(1.49)
Lag BoD Size		-2.417	-13.41	-0.0972
		(5.36)	(51.34)	(2.44)
Lag Transparency		19.19	-354.1	4.08
		(46.53)	(581.50)	(17.99)
Lag Foreign Ownership		18.7	12.84	1.417
		(14.43)	(56.63)	(6.45)
Lag Age		21.2	107.3	3.095
		(40.21)	(337.10)	(23.40)
Lag Average Sales Growth		-0.0801	0.051	0.00427
		(0.21)	(1.04)	(0.29)
Lag Sales		0.634	-6.201	1.819
		(4.28)	(12.32)	(2.23)
Lag Debt		-1.355	-24.19	0.376
		(3.39)	(33.62)	(2.27)
Lag ROS	-1.199*	-1.132	-0.401	-0.760***
	(0.63)	(0.91)	(1.34)	(0.17)
Year	1.032	2.796	1.889	0.00765
	(1.60)	(3.16)	(11.46)	(1.07)
Constant	(1988)	(5469)	(3007)	(52)
	(3134)	(6310)	(22588)	(2107)
Observations	579	567	567	567
Number of Firm	328	319	319	319

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
Autocorrelation test result	1	2	3	4
z	0.88969	0.42961	0.47484	-0.17033
p>z	0.3736	0.6675	0.6349	0.8647

Appendix 8. Regression Result Using GMM Method – Model 1 (in the Presence of Homoscedastic Weighting Matrix)

In this appendix, the regression is performed in the presence of homoscedastic weighting matrix, which is using one-step procedure.

GMM-first difference estimation method is applied to four different sub-models, which differ based on the way explanatory variables are treated, with description as follow:

1. Sub-model 1: explanatory variables are without lag and are not treated as endogenous variables
2. Sub-model 2: explanatory variables are with lag and are not treated as endogenous variables
3. Sub-model 3: explanatory variables are without lag and are treated as endogenous variables
4. Sub-model 4: explanatory variables are with lag and are treated as endogenous variables

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA. I choose result from sub-models 3, 3 and 4 when firm performance is measured by Tobins' Q, ROA and ROS (correspondingly), as the p-value in autocorrelation test result and sargan test result are higher than 10% and the explanatory variables are also treated as endogenous variables.

a. Firm performance: Tobin's Q

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
BoC Size	0.152 (0.192)	0.189 (0.183)	0.504 (0.84)	0.14 (0.162)
BoC Independence	0.351 (0.296)	0.435 (0.280)	0.56 (1.47)	0.304 (0.245)
BoD Size	0.0185 (0.178)	2.89E-05 (0.171)	-0.357 (0.49)	-0.00441 (0.152)
Transparency	-0.297 (0.268)	-0.636 (0.560)	-9.137 (7.40)	-0.541 (0.497)
Foreign Ownership	-0.25 (0.227)	-0.283 (0.222)	-0.806 (1.04)	-0.221 (0.195)
Age	-0.0752 (0.266)	1.574 (1.904)	15.25 (15.11)	1.627 (1.682)
Average Sales Growth	0.0415 (0.028)	0.0374 (0.034)	0.00498 (0.10)	0.0467* (0.028)
ROA	-0.0857 (0.315)	0.307 (0.298)	1.204 (1.56)	0.443* (0.262)
Sales	- 0.244*** (0.042)	- 0.166*** (0.045)	-0.138 (0.12)	- 0.177*** (0.040)
Debt	0.323*** (0.093)	0.397*** (0.097)	0.501* (0.28)	0.352*** (0.084)
Lag ROA		0.895*** (0.311)	3.228 (3.25)	0.922*** (0.273)

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
Lag Tobin's Q	0.297 (0.290)	0.326 (0.274)	0.426 (0.67)	-0.0875 (0.198)
Lag BoC Size		0.302* (0.162)	2.176 (3.16)	0.300** (0.143)
Lag BoC Independence		-0.0307 (0.167)	-1.121 (3.08)	-0.0182 (0.139)
Lag BoD Size		0.0314 (0.146)	-1.248 (1.51)	-0.0391 (0.129)
Lag Transparency		-0.986 (1.089)	-21.66 (18.22)	-0.75 (0.966)
Lag Foreign Ownership		0.142 (0.234)	-0.44 (2.04)	0.0732 (0.205)
Lag Age		-1.042 (1.229)	-9.526 (9.51)	-1.137 (1.087)
Lag Average Sales Growth		0.000264 (0.011)	0.00991 (0.03)	-0.0006 (0.010)
Lag Sales		0.116 (0.076)	0.258 (0.71)	0.111 (0.067)
Lag Debt		-0.248* (0.133)	-0.329 (1.20)	-0.112 (0.110)
Year	-0.0395 (0.034)	-0.0900* (0.052)	-0.590* (0.34)	-0.0836* (0.046)
Observations	561	549	549	549
Number of Firm	325	316	316	316
Over identifying test result (Sargan Test)				
	1	2	3	4
Chi2	0.669955	0.201874	6.054735	24.34883
p>Chi2	0.7154	0.904	0.4171	0.0822
Autocorrelation test result				
	1	2	3	4
z	-3.5241	-3.8985	-1.2502	-3.3703
p>z	0.0004	0.0001	0.2112	0.0009

b. Firm performance: ROA

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
BoC Size	-0.0126 (0.03)	0.0135 (0.03)	0.0257 (0.11)	0.0132 (0.03)
BoC Independence	0.00225 (0.04)	0.00539 (0.04)	-0.0727 (0.22)	0.00569 (0.04)
BoD Size	0.0416 (0.03)	0.0381 (0.03)	-0.0154 (0.06)	0.0384 (0.03)
Transparency	0.0273 (0.04)	0.0381 (0.09)	-0.551 (0.59)	0.0341 (0.09)
Foreign Ownership	-0.0153	-0.0177	-0.0771	-0.0231

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
	(0.03)	(0.03)	(0.12)	(0.03)
Age	-0.0778**	-0.0355	1.971	-0.0673
	(0.04)	(0.30)	(2.20)	(0.29)
Average Sales Growth	0.00653	0.00515	-0.00196	0.00573
	(0.00)	(0.01)	(0.02)	(0.01)
ROA				
Sales	0.0211***	0.0280***	0.0295**	0.0271***
	(0.01)	(0.01)	(0.01)	(0.01)
Debt	-0.109***	-0.117***	-0.130***	-0.116***
	(0.01)	(0.01)	(0.03)	(0.01)
Lag ROA	-0.114*	-0.0678	-0.0245	-0.089
	(0.07)	(0.07)	(0.15)	(0.07)
Lag Tobin's Q				
Lag BoC Size		0.0578**	0.0605	0.0578**
		(0.03)	(0.41)	(0.03)
Lag BoC Independence		-0.00326	-0.229	0.0027
		(0.03)	(0.41)	(0.02)
Lag BoD Size		-0.0218	-0.236	-0.0216
		(0.02)	(0.20)	(0.02)
Lag Transparency		0.0627	-1.291	0.0612
		(0.17)	(1.48)	(0.17)
Lag Foreign Ownership		0.00831	-0.0764	0.00377
		(0.04)	(0.27)	(0.04)
Lag Age		-0.0265	-1.285	-0.00541
		(0.19)	(1.38)	(0.19)
Lag Average Sales Growth		-0.00057	-0.00199	-0.00057
		(0.00)	(0.01)	(0.00)
Lag Sales		-0.0132	-0.0189	-0.0114
		(0.01)	(0.11)	(0.01)
Lag Debt		0.0708***	0.215*	0.0686***
		(0.02)	(0.13)	(0.02)
Year	-7.93E-05	-0.00056	-0.0573	0.000858
	(0.00)	(0.01)	(0.04)	(0.01)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Over identifying test result (Sargan Test)	1	2	3	4
Chi2	5.64297	4.16631	1.8354	18.3275
p>Chi2	0.0595	0.1245	0.9342	0.2458
Autocorrelation test result	1	2	3	4
z	-3.0837	-3.2844	-1.2525	-3.1546
p>z	0.0020	0.0010	0.2104	0.0016

c. Firm performance: ROS

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
BoC Size	24.22** (11.210)	29.19** (11.640)	50.54 (37.340)	26.56** (11.350)
BoC Independence	-8.514 (16.920)	-8.743 (17.450)	34.31 (82.060)	-11.12 (16.950)
BoD Size	11.9 (10.830)	15.9 (10.950)	7.257 (33.440)	12.18 (10.600)
Transparency	-32.71** (15.810)	6.18 (35.620)	-96.24 (402.200)	6.472 (34.960)
Foreign Ownership	3.543 (13.160)	12.98 (13.980)	38.46 (46.230)	12.29 (13.660)
Age	-33.51** (15.360)	-183.9 (120.300)	-902.2 (707.200)	-182.9 (117.300)
Average Sales Growth	-3.123* (1.677)	3.35 (2.147)	2.002 (9.335)	2.49 (2.068)
ROA	5.347 (17.040)	5.413 (18.400)	22.13 (135.000)	4.336 (18.020)
Sales	-1.072 (2.557)	-3.185 (2.906)	-1.184 (6.449)	-3.736 (2.833)
Debt	1.912 (5.420)	2.029 (5.901)	4.201 (20.260)	0.511 (5.768)
Lag ROA		2.787 (19.710)	56.2 (250.500)	-4.17 (19.120)
Lag Tobin's Q				
Lag BoC Size		8.913 (10.280)	107.3 (121.800)	6.567 (10.010)
Lag BoC Independence		-0.509 (10.500)	62.11 (163.500)	-1.601 (9.675)
Lag BoD Size		6.572 (9.151)	-1.219 (79.320)	6.267 (8.919)
Lag Transparency		94.46 (68.550)	-158.1 (1,002)	96.27 (67.310)
Lag Foreign Ownership		18.42 (14.940)	72.11 (100.400)	16.63 (14.520)
Lag Age		90.7 (77.890)	543.4 (453.800)	90.78 (76.010)
Lag Average Sales Growth		-0.313 (0.726)	0.392 (1.724)	-0.313 (0.714)
Lag Sales		9.404* (5.025)	4.133 (23.680)	12.51*** (4.732)
Lag Debt		-1.394 (6.725)	-15.29 (62.470)	-2.42 (6.551)
Lag ROS	-0.930* (0.494)	-1.554*** (0.501)	-1.019 (1.760)	-0.745** (0.296)
Year	3.276 (2.001)	7.351** (3.244)	21.72 (14.810)	6.624** (3.157)

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
Observations	579	567	567	567
Number of Firm	328	319	319	319
Over identifying test result (Sargan Test)	1	2	3	4
Chi2	0.751141	1.007172	1.93684	12.99907
p>Chi2	0.6869	0.6044	0.9254	0.6728
Autocorrelation test result	1	2	3	4
z	-0.19347	1.6208	1.1816	-0.30915
p>z	0.8846	0.1051	0.2373	0.7572

Appendix 9. Regression Result Using GMM Method - Model 2 (in the Presence of Heteroscedastic and Homoscedastic Weighting Matrix)

In this appendix, the regression is performed in the presence of both heteroscedastic and homoscedastic weighting matrix, which is using one-step and two-step procedure.

GMM-first difference estimation method is applied to four different sub-models, which differ based on the way explanatory variables are treated, with description as follow:

1. Sub-model 1: explanatory variables are without lag and are not treated as endogenous variables
2. Sub-model 2: explanatory variables are with lag and are not treated as endogenous variables
3. Sub-model 3: explanatory variables are without lag and are treated as endogenous variables
4. Sub-model 4: explanatory variables are with lag and are treated as endogenous variables

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA. I choose result from sub-models 3 when I performed the regression in both heteroscedastic and homoscedastic weighting matrix, as the p-value in autocorrelation test result and sargan test result are higher than 10% and the explanatory variables are also treated as endogenous variables.

a. In the presence of heteroscedastic weighting matrix

VARIABLES	Transparency and Disclosure (in the presence of heteroscedastic weighting matrix)			
	1	2	3	4
	BoC Size	-0.0468*** (0.0134)	-0.0390** (0.0170)	0.0168 (0.0599)
BoC Independence	0.0404* (0.0233)	0.0668** (0.0300)	-0.0513 (0.1220)	0.0473 (0.0310)
BoD Size	0.0073 (0.0135)	0.00346 (0.0166)	-0.03 (0.0405)	-0.0012 (0.0160)
Tobin's Q	0.00284 (0.0029)	-0.000617 (0.0037)	-0.0143 (0.0342)	0.000126 (0.0036)
Foreign Ownership	-0.0126 (0.0133)	-0.0413** (0.0206)	-0.0516 (0.0775)	-0.0388* (0.0198)
Age	-0.0175 (0.0118)	0.415 (0.2640)	0.423 (1.3020)	0.317 (0.2420)
Average Sales Growth	0.000370*** (0.0001)	-0.00244 (0.0015)	-4.54E-05 (0.0148)	-0.00192 (0.0015)
ROA	0.000506 (0.0243)	0.0204 (0.0330)	0.195 (0.3570)	0.0203 (0.0300)
Sales	-0.00323 (0.0027)	-0.0019 (0.0032)	-0.0032 (0.0142)	-0.00519** (0.0026)
Debt	-0.00926 (0.0058)	-0.00668 (0.0059)	0.0359 (0.0727)	-0.00525 (0.0047)
Lag Transparency	-2.914***	-2.971***	-2.586***	-2.831***

VARIABLES	Transparency and Disclosure (in the presence of heteroscedastic weighting matrix)			
	1	2	3	4
		(0.0619)	(0.0706)	(0.2550)
Lag BoC Size		0.00648 (0.0139)	0.179 (0.2150)	0.00136 (0.0149)
Lag BoC Independence		-0.00805 (0.0147)	-0.265 (0.2680)	-0.00819 (0.0172)
Lag BoD Size		0.00288 (0.0130)	-0.0656 (0.1420)	0.00832 (0.0129)
Lag Tobin's Q		0.00316 (0.0073)	0.0312 (0.0967)	0.00591 (0.0066)
Lag Foreign Ownership		-0.0212 (0.0221)	0.00134 (0.1310)	-0.0207 (0.0192)
Lag Age		-0.231 (0.1620)	-0.225 (0.8170)	-0.179 (0.1510)
Lag Average Sales Growth		0.000354 (0.0004)	0.00125 (0.0019)	0.000337 (0.0003)
Lag ROA		0.0424** (0.0209)	0.331 (0.4280)	0.0316* (0.0188)
Lag Sales		-0.00132 (0.0067)	0.0219 (0.0701)	-0.00568 (0.0062)
Lag Debt		-0.00116 (0.0094)	-0.127 (0.1920)	-0.00462 (0.0070)
Year	-0.0316*** (0.0041)	-0.0478*** (0.0084)	-0.0357 (0.0267)	-0.0400*** (0.0082)
Constant	65.88*** (8.274)	98.18*** (16.65)	73.26 (52.93)	82.74*** (16.3500)
Observations	657	549	549	549
Number of Firm	359	316	316	316
Autocorrelation test result	1	2	3	4
z	7.8606	6.7807	1.5015	6.2443
Prob > z	0	0	0.1332	0

b. In the presence of homoscedastic weighting matrix

VARIABLES	Transparency and Disclosure (in the presence of homoskedastic weighting matrix)			
	1	2	3	4
BoC Size	- 0.0475*** (0.0183)	-0.0395** (0.0197)	0.0318 (0.0881)	-0.0326* (0.0169)
BoC Independence	0.0389 (0.0252)	0.0633** (0.0290)	-0.0526 (0.1790)	0.0504** (0.0248)
BoD Size	0.00462 (0.0159)	0.0014 (0.0173)	-0.0231 (0.0520)	0.0017 (0.0153)
Tobin's Q	0.00276	-0.000879	-0.0113	-0.00128

VARIABLES	Transparency and Disclosure (in the presence of homoskedastic weighting matrix)			
	1	2	3	4
	(0.0045)	(0.0054)	(0.0388)	(0.0048)
Foreign Ownership	-0.0134	-0.0388*	-0.0717	-0.03
	(0.0211)	(0.0231)	(0.1100)	(0.0200)
Age	-0.0148	0.404**	0.615	0.421**
	(0.0099)	(0.1910)	(1.6400)	(0.1680)
Average Sales Growth	0.000363	-0.00291	0.000663	-0.0037
	(0.0003)	(0.0034)	(0.0129)	(0.0028)
ROA	0.00518	0.0232	0.19	0.0241
	(0.0262)	(0.0293)	(0.2980)	(0.0259)
Sales	-0.00279	-0.00129	-0.000743	-0.000302
	(0.0037)	(0.0046)	(0.0177)	(0.0041)
Debt	-0.0088	-0.00669	0.0415	-0.00498
	(0.0078)	(0.0094)	(0.0512)	(0.0083)
Lag Transparency	-2.863***	-2.905***	-2.569***	-2.669***
	(0.1730)	(0.1830)	(0.2930)	(0.1300)
Lag BoC Size		0.00746	0.232	0.011
		(0.0165)	(0.2860)	(0.0145)
Lag BoC Independence		-0.00872	-0.299	-0.0174
		(0.0168)	(0.3690)	(0.0138)
Lag BoD Size		0.00259	-0.0377	-0.000871
		(0.0147)	(0.1520)	(0.0129)
Lag Tobin's Q		0.00273	0.0489	0.00357
		(0.0075)	(0.1070)	(0.0066)
Lag Foreign Ownership		-0.0173	-0.0555	-0.0143
		(0.0235)	(0.2210)	(0.0205)
Lag Age		-0.223*	-0.338	-0.238**
		(0.1230)	(1.0310)	(0.1080)
Lag Average Sales Growth		0.000337	0.0012	0.000277
		(0.0011)	(0.0027)	(0.0010)
Lag ROA		0.039	0.37	0.0476*
		(0.0314)	(0.4840)	(0.0276)
Lag Sales		-0.000294	0.014	-0.00182
		(0.0077)	(0.0758)	(0.0068)
Lag Debt		-0.0034	-0.141	-0.00119
		(0.0110)	(0.1460)	(0.0097)
Year	-	-	-0.0402	-0.0420***
	0.0311***	0.0467***		
	(0.0033)	(0.0064)	(0.0354)	(0.0052)
Constant				
Observations	657	549	549	549
Number of Firm	359	316	316	316
Overidentifying test result (Sargan Test)	1	2	3	4
Chi2	3.949274	2.794871	1.33851	20.99284

VARIABLES	Transparency and Disclosure (in the presence of homoskedastic weighting matrix)			
	1	2	3	4
Prob > chi2	0.0469	0.0946	0.9309	0.1371
Autocorrelation test result	1	2	3	4
z	4.6994	4.6297	0.81004	4.7314
Prob > z	0	0	0.4179	0

Appendix 10. Regression Result Using GMM Method – Model 1 (in the Presence of Heteroscedastic Weighting Matrix), without including transparency variable

In this appendix, the regression is performed without transparency variable and in the presence of heteroscedastic weighting matrix, which is using two-step procedure.

GMM-first difference estimation method is applied to four different sub-models, which differ based on the way explanatory variables are treated, with description as follow:

1. Sub-model 1: explanatory variables are without lag and are not treated as endogenous variables
2. Sub-model 2: explanatory variables are with lag and are not treated as endogenous variables
3. Sub-model 3: explanatory variables are without lag and are treated as endogenous variables
4. Sub-model 4: explanatory variables are with lag and are treated as endogenous variables

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA. I choose result from sub-models 3, 3 and 4 when the firm performance is measured by Tobins' Q, ROA and ROS (correspondingly), as the p-value in autocorrelation test result is higher than 10% and the explanatory variables are also treated as endogenous variables.

a. Firm performance: Tobins' Q

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
BoC Size	0.112 (0.161)	0.187 (0.181)	-0.158 (0.412)	-0.0161 (0.168)
BoC Independence	0.344 (0.305)	0.442 (0.319)	0.111 (1.609)	0.0298 (0.269)
BoD Size	0.00759 (0.120)	-0.013 (0.124)	0.226 (0.498)	-0.0568 (0.132)
Foreign Ownership	-0.265 (0.180)	-0.283 (0.188)	-0.25 (1.209)	-0.262 (0.216)
Age	-0.0511 (0.266)	1.353 (1.842)	11.01 (13.380)	0.344 (1.831)
Average Sales Growth	0.0408* (0.022)	0.0401 (0.040)	0.0239 (0.096)	0.0207 (0.080)
ROA	-0.0894 (0.336)	0.311 (0.263)	1.055 (1.419)	0.319 (0.327)
Sales	-0.253** (0.111)	-0.173 (0.127)	-0.147 (0.213)	-0.0198 (0.165)
Debt	0.315 (0.259)	0.398*** (0.130)	0.355 (0.431)	0.259 (0.200)
Lag ROA		0.915 (0.702)	0.933 (2.455)	-0.021 (0.589)

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
Lag Tobin's Q	0.375 (0.244)	0.317 (0.217)	-0.346 (0.496)	-0.133 (0.268)
Lag BoC Size		0.305 (0.229)	-0.689 (1.466)	-0.0232 (0.186)
Lag BoC Independence		-0.00966 (0.108)	0.794 (3.349)	0.00757 (0.104)
Lag BoD Size		0.0312 (0.101)	0.383 (1.399)	-0.0793 (0.099)
Lag Foreign Ownership		0.139 (0.171)	-0.222 (2.131)	-0.0859 (0.207)
Lag Age		-0.904 (1.206)	-7.148 (8.297)	-0.437 (1.126)
Lag Average Sales Growth		0.00018 (0.008)	-0.00142 (0.014)	-0.00515 (0.008)
Lag Sales		0.119 (0.140)	0.191 (0.472)	0.158 (0.159)
Lag Debt		-0.249** (0.114)	-0.155 (1.262)	-0.0926 (0.137)
Year	-0.0497* (0.028)	-0.0809* (0.043)	-0.292 (0.307)	-0.0485 (0.051)
Constant	107.5* (56.260)	164.2* (84.030)	576.3 (604.8)	94.08 (100.4)
Observations	561	549	549	549
Number of Firm	325	316	316	316
Autocorrelation test result	1	2	3	4
z	-1.7527	-1.8992	-0.83118	-1.3787
p>z	0.0797	0.0575	0.4059	0.168

b. Firm performance: ROA

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
BoC Size	-0.011 (0.0227)	0.0108 (0.0247)	0.00358 (0.0637)	-0.00338 (0.0222)
BoC Independence	-0.00603 (0.0236)	-0.000529 (0.0258)	-0.0425 (0.1950)	0.00809 (0.0246)
BoD Size	0.034 (0.0229)	0.032 (0.0239)	0.0428 (0.0508)	0.0162 (0.0206)
Foreign Ownership	-0.00677 (0.0423)	-0.0238 (0.0438)	-0.0613 (0.1220)	0.00753 (0.0339)
Age	-0.0647** (0.0329)	-0.0274 (0.2520)	2.284 (1.6130)	-0.09 (0.2280)
Average Sales Growth	0.00496* (0.0029)	0.00365 (0.0051)	0.00325 (0.0112)	0.00531 (0.0050)
Sales	0.0216	0.0285*	0.0266	0.0187

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
Debt	(0.0145) -0.105***	(0.0170) -0.116***	(0.0223) -0.131**	(0.0158) -0.109***
Lag ROA	(0.0266) -0.113 (0.1270)	(0.0132) -0.0405 (0.1060)	(0.0513) -0.107 (0.1600)	(0.0105) -0.0546 (0.1130)
Lag BoC Size		0.0520* (0.0307)	-0.0291 (0.2300)	0.044 (0.0310)
Lag BoC Independence		-0.00726 (0.0145)	-0.0673 (0.3630)	0.000547 (0.0158)
Lag BoD Size		-0.0265 (0.0329)	-0.00803 (0.1490)	-0.0158 (0.0231)
Lag Foreign Ownership		0.0133 (0.0306)	-0.121 (0.1880)	0.00857 (0.0246)
Lag Age		-0.0201 (0.1550)	-1.482 (1.0250)	0.0198 (0.1420)
Lag Average Sales Growth		-0.000566 (0.0004)	-0.00267 (0.0046)	-0.000590* (0.0003)
Lag Sales		-0.00661 (0.0158)	-0.0375 (0.0615)	-0.000932 (0.0087)
Lag Debt		0.0604*** (0.0193)	0.203 (0.1980)	0.0493** (0.0218)
Year	-0.00296 (0.0053)	-0.00445 (0.0076)	-0.0535 (0.0342)	-0.00349 (0.0069)
Constant	5.662 (10.5900)	8.666 (14.9800)	106 (67.2600)	6.852 (13.6100)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Autocorrelation test result	1	2	3	4
z	-1.24	-1.653	-0.43608	-1.5716
p>z	0.215	0.0983	0.6628	0.116

c. Firm performance: ROS

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
BoC Size	4.719 (13.650)	5.876 (12.840)	5.216 (25.970)	0.141 (5.012)
BoC Independence	-0.0143 (4.809)	0.264 (4.858)	0.921 (43.720)	-0.429 (4.313)
BoD Size	2.888 (7.391)	1.158 (8.681)	0.472 (13.000)	-1.365 (3.441)
Foreign Ownership	-0.0198 (2.293)	8.479 (7.496)	3.674 (29.520)	0.489 (4.312)
Age	-7.587 (18.370)	-40.9 (68.890)	8.102 (476.800)	4.388 (36.300)

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
Average Sales Growth	-0.799 (5.245)	1.498 (1.455)	1.964 (3.883)	0.011 (0.771)
ROA	6.423 (6.880)	12.93 (8.362)	3.427 (46.920)	5.708 (6.543)
Sales	-1.889 (3.942)	-4.17 (4.076)	-2.658 (4.937)	-0.162 (3.260)
Debt	3.211 (2.017)	3.771 (3.378)	3.191 (8.830)	2.291 (2.381)
Lag ROA		9.983 (6.633)	-5.857 (61.650)	2.851 (5.104)
Lag BoC Size		5.225 (6.513)	27.2 (72.470)	-0.603 (3.105)
Lag BoC Independence		-0.913 (1.586)	-5.06 (92.860)	0.0292 (1.291)
Lag BoD Size		-2.409 (4.934)	11.88 (31.870)	-0.51 (2.559)
Lag Foreign Ownership		18.29 (14.480)	8.583 (65.130)	0.955 (5.775)
Lag Age		19.82 (35.750)	-5.691 (292.300)	-1.656 (22.390)
Lag Average Sales Growth		-0.0632 (0.232)	0.11 (1.099)	-0.0114 (0.339)
Lag Sales		0.727 (3.933)	-0.37 (9.343)	1.402 (2.589)
Lag Debt		-1.618 (3.401)	-5.585 (27.420)	0.606 (2.529)
Lag ROS	-1.229* (0.631)	-1.057 (0.858)	-1.218 (1.382)	-0.750*** (0.172)
Year	0.892 (1.398)	2.179 (2.242)	0.273 (11.250)	-0.235 (0.869)
Constant	-1,712 (2740)	-4,228 (4425)	-386.4 (22162)	425 (1697)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Autocorrelation test result	1	2	3	4
z	0.9223	0.35937	0.3939	-0.32391
p>z	0.3564	0.7193	0.6937	0.746

Appendix 11. Regression Result Using GMM Method – Model 1 (in the Presence of Homoscedastic Weighting Matrix), without including transparency variable

In this appendix, the regression is performed without transparency variable and in the presence of homoscedastic weighting matrix, which is using one-step procedure.

GMM-first difference estimation method is applied to four different sub-models, which differ based on the way explanatory variables are treated, with description as follow:

1. Sub-model 1: explanatory variables are without lag and are not treated as endogenous variables
2. Sub-model 2: explanatory variables are with lag and are not treated as endogenous variables
3. Sub-model 3: explanatory variables are without lag and are treated as endogenous variables
4. Sub-model 4: explanatory variables are with lag and are treated as endogenous variables

After estimating each sub-model using GMM-first difference, I perform autocorrelation test of first-difference error using command estat abond in STATA. I choose result from sub-models 3, 3 and 4 when the firm performance is measured by Tobins' Q, ROA and ROS (correspondingly), as the p-value in autocorrelation test result and sargan test result is higher than 10% and the explanatory variables are also treated as endogenous variables.

a. Firm performance: Tobins' Q

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
BoC Size	0.134 (0.191)	0.178 (0.180)	-0.433 (0.583)	0.139 (0.162)
BoC Independence	0.375 (0.296)	0.439 (0.276)	0.495 (1.309)	0.311 (0.244)
BoD Size	0.00746 (0.178)	-0.00802 (0.170)	-0.0854 (0.391)	-0.0128 (0.153)
Foreign Ownership	-0.274 (0.226)	-0.296 (0.218)	-0.516 (0.919)	-0.237 (0.195)
Age	-0.0667 (0.266)	1.344 (1.875)	17.14 (13.610)	1.539 (1.682)
Average Sales Growth	0.0418 (0.028)	0.0397 (0.034)	-0.0362 (0.082)	0.0484* (0.028)
ROA	-0.0964 (0.315)	0.298 (0.296)	1.246 (1.136)	0.437* (0.264)
Sales	-0.243*** (0.042)	-0.165*** (0.045)	-0.239*** (0.093)	-0.177*** (0.040)
Debt	0.322*** (0.093)	0.395*** (0.096)	0.494** (0.240)	0.359*** (0.085)
Lag ROA		0.868*** (0.308)	1.742 (2.004)	0.920*** (0.274)

VARIABLES	Firm Performance (TQ)			
	1	2	3	4
Lag Tobin's Q	0.298 (0.290)	0.302 (0.271)	-0.247 (0.422)	-0.0534 (0.205)
Lag BoC Size		0.286* (0.160)	-1.889 (2.017)	0.297** (0.144)
Lag BoC Independence		-0.00859 (0.166)	0.9 (2.852)	-0.0143 (0.140)
Lag BoD Size		0.0369 (0.145)	-0.445 (1.168)	-0.0278 (0.130)
Lag Foreign Ownership		0.138 (0.232)	-0.58 (1.806)	0.0887 (0.207)
Lag Age		-0.906 (1.212)	-10.91 (8.489)	-1.077 (1.089)
Lag Average Sales Growth		0.00038 (0.011)	-0.00331 (0.020)	-0.00037 (0.010)
Lag Sales		0.121 (0.075)	-0.00543 (0.526)	0.112* (0.068)
Lag Debt		-0.247* (0.132)	-0.266 (1.029)	-0.126 (0.112)
Year	-0.0471 (0.034)	-0.0800* (0.048)	-0.4 (0.282)	-0.0780* (0.044)
Observations	561	549	549	549
Number of Firm	325	316	316	316
Over identifying test result (Sargan Test)	1	2	3	4
Chi2	0.5848	0.0896	9.50415	24.017
p>Chi2	0.7465	0.9562	0.1471	0.0648
Autocorrelation test result	1	2	3	4
z	-3.539	-3.8872	-1.3947	-3.4713
p>z	0.0004	0.0001	0.1631	0.0005

b. Firm performance: ROA

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
BoC Size	-0.011 (0.0279)	0.0137 (0.0286)	-0.00242 (0.1100)	0.0142 (0.0282)
BoC Independence	0.00037 (0.0419)	0.00554 (0.0428)	-0.107 (0.2350)	0.00539 (0.0419)
BoD Size	0.0425 (0.0259)	0.0386 (0.0266)	-0.00246 (0.0620)	0.0391 (0.0262)
Foreign Ownership	-0.0131 (0.0327)	-0.0171 (0.0344)	-0.104 (0.1260)	-0.0231 (0.0339)
Age	-0.0788** (0.0382)	-0.0202 (0.2960)	2.631 (2.0880)	-0.0558 (0.2910)
Average Sales Growth	0.00649	0.00502	-0.00203	0.00574

VARIABLES	Firm Performance (ROA)			
	1	2	3	4
	(0.0041)	(0.0054)	(0.0167)	(0.0053)
Sales	0.0211***	0.0280***	0.0274**	0.0271***
	(0.0061)	(0.0070)	(0.0125)	(0.0069)
Debt	-0.109***	-0.117***	-0.119***	-0.117***
	(0.0127)	(0.0135)	(0.0285)	(0.0133)
Lag ROA	-0.116*	-0.0662	-0.106	-0.0914
	(0.0663)	(0.0673)	(0.1300)	(0.0651)
Lag BoC Size		0.0588**	-0.068	0.0583**
		(0.0253)	(0.3960)	(0.0249)
Lag BoC Independence		-0.00439	-0.226	0.00122
		(0.0260)	(0.4700)	(0.0242)
Lag BoD Size		-0.0221	-0.166	-0.0222
		(0.0227)	(0.1810)	(0.0223)
Lag Foreign Ownership		0.00815	-0.166	0.00275
		(0.0368)	(0.2560)	(0.0361)
Lag Age		-0.0358	-1.704	-0.0126
		(0.1920)	(1.3130)	(0.1890)
Lag Average Sales Growth		-0.00057	-0.00319	-0.00058
		(0.0018)	(0.0049)	(0.0018)
Lag Sales		-0.0134	-0.0479	-0.0114
		(0.0118)	(0.0986)	(0.0116)
Lag Debt		0.0712***	0.16	0.0692***
		(0.0168)	(0.1160)	(0.0165)
Year	0.00062	-0.00127	-0.0569	7.90E-05
	(0.0049)	(0.0076)	(0.0416)	(0.0074)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Over identifying test result (Sargan Test)	1	2	3	4
Chi2	5.696	4.2280	3.0396	17.07
p>Chi2	0.058	0.1208	0.8039	0.2525
Autocorrelation test result	1	2	3	4
z	-3.1057	-3.3336	-1.1705	-3.1222
p>z	0.0019	0.0009	0.2418	0.0018

c. Firm performance: ROS

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
BoC Size	22.60**	26.22**	41.65	23.04**
	(11.22)	(11.620)	(34.830)	(11.320)
BoC Independence	-6.011	-4.305	19.7	-7.285
	(16.94)	(17.390)	(88.230)	(16.890)
BoD Size	10.85	15.34	14.35	11.29
	(10.88)	(10.990)	(22.950)	(10.640)

VARIABLES	Firm Performance (ROS)			
	1	2	3	4
Foreign Ownership	0.781 (13.15)	9.131 (13.950)	33.89 (47.180)	8.845 (13.620)
Age	-32.24** (15.42)	-179.9 (119.900)	-770.9 (644.100)	-172.9 (117.000)
Average Sales Growth	-3.090* (1.69)	3.371 (2.155)	4.264 (6.483)	2.437 (2.076)
ROA	3.983 (17.11)	5.467 (18.490)	-11.77 (78.750)	5.297 (18.100)
Sales	-0.976 (2.57)	-3.153 (2.917)	-0.937 (5.485)	-3.771 (2.845)
Debt	1.814 (5.44)	1.706 (5.921)	0.0457 (16.290)	0.3 (5.787)
Lag ROA	22.60** (11.22)	3.797 (19.760)	-16.16 (127.100)	-2.217 (19.150)
Lag BoC Size	-6.011 (16.94)	7.727 (10.310)	78.63 (118.800)	5.882 (10.040)
Lag BoC Independence	10.85 (10.88)	0.681 (10.520)	33.29 (183.900)	-0.83 (9.700)
Lag BoD Size	0.781 (13.15)	7.554 (9.179)	15.18 (59.850)	7.374 (8.949)
Lag Foreign Ownership	-32.24** (15.42)	17.02 (14.990)	69.44 (99.160)	16.11 (14.570)
Lag Age	-3.090* (1.69)	89.79 (77.770)	458.6 (405.400)	86.2 (75.910)
Lag Average Sales Growth	3.983 (17.11)	-0.281 (0.729)	0.697 (1.487)	-0.274 (0.717)
Lag Sales	-0.976 (2.57)	9.701* (5.046)	6.914 (21.760)	12.79*** (4.751)
Lag Debt	1.814 (5.44)	-1.913 (6.751)	-12.31 (58.100)	-3.11 (6.576)
Lag ROS	22.60** (11.22)	-1.567*** (0.503)	-1.449 (1.031)	-0.728** (0.298)
Year	-6.011 (16.94)	5.352* (3.065)	19.09 (13.640)	4.538 (2.981)
Observations	579	567	567	567
Number of Firm	328	319	319	319
Over identifying test result (Sargan Test)	1	2	3	4
Chi2	0.58253	0.9984	2.763265	11.37679
p>Chi2	0.7473	0.607	0.8379	0.7255
Autocorrelation test result	1	2	3	4
z	-0.2544	1.6769	1.278	-0.3194
p>z	0.7992	0.0936	0.2013	0.7494

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Bapepam-LK	Indonesia Capital Market and Financial Institutions Supervisory Agency. The function of this institution has been replaced with OJK since the enactment of Undang-Undang Republik Indonesia Nomor 21 Tahun 2011 [Law of the Republic of Indonesia Number 21 Year 2011]
BoC	Board of Commissioner
BoD	Board of Director
CG	Corporate Governance
FE Method	Fixed Effect Method
GCG	Good Corporate Governance
GMM Method	Generalized Method of Moments
OECD	Organisation for Economic Co-operation and Development
OJK	Indonesia Financial Services Authority
OLS Method	Ordinary Least Square Method
RE Method	Random Effect Method

국 문 초 록

임원회의 특징과 투명성은 기업지배구조에서 항상 중요한 역할을 한다. 여러 선행연구들은 1 계층 임원회 구조를 채택하는 국가에서 그것에 대한 중요성을 조사하려고 노력했지만, 2 계층 임원회 구조를 채택하는 국가에게 관심이 그리 많지 않다. 본 연구는 2 계층 임원회 구조를 채택하는 인도네시아에 있는 기업성과에 대한 기업지배구조와 투명성을 조사하려고 한다. 또한, 본 연구는 선행연구에 많이 다루지 않는 기업지배구조와 투명성의 관계를 조사하려고 한다.

기업지배구조와 관련된 선행 연구에는 주로 정태모형과 OLS 추정법이나 고정효과 모형을 이용하여 추정하기 때문에 대부분의 연구가 결론을 이루지 못한 이유 중 하나다. 그러나 최근 연구는 기업 지배 구조와 기업 성과의 관계를 연결하기 위해 역동적인 모델을 고려하는 것의 중요성을 강조하고 있다. GMM 은 OLS 추정법이나 고정효과 모형에 지정할 수 없는 동적 모델에 존재하는 선량성 및 다중성 문제를 고려하기 때문에 본 연구는 동적 모델인 GMM 추정법을 이용한다.

본 연구는 인도네시아에 있는 기업 데이터를 이용한다. 결과적으로 임원회의 특징은 기업성과 투명성은 관계가 있다는 것에 대한 확고한 증거가 없다는 것으로 나타났다. 이것은 이사회 권한과 투명성에 대한 인도네시아 정부 집행 부족, 독립 위원을 선출하는 관행, 독립 위원 보수 문제, 그리고 민간 국가로서의 천성 때문이다. 반면, 투명성은 놀랍게도 시장 평가와 부정적인 상관 관계가 있다는 것을 발견하였다. 인도네시아에 상장된 기업 중에서 확고한 가치가 낮은 기업들은 투명성 규제를 준수하기 위해 더 많은 인센티브를 받는 경향이 있음을 나타낼 수 있다. 투명성도 회계 평가에 아무 상관이 없으며, 이는 인도네시아 기업들이 특정 의무 기준을 이행하기 위해 투명성 규제를 준수할 수도 있음을 나타내는 것으로 발견한다.

주제어: 기업지배구조, 기업성관, GMM 추정법, 임원회, 투명성, 2 계층 임원회 구조

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