The Relationship of Related Party Transactions and Characteristics of Corporate Governance on Firm Performance: Evidence from Indonesian Listed Firms

by

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THESIS DECLARATION

I, EMY YUNIDYASTUTI, certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university, and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signature

Date: 17th January 2019

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ABSTRACT

Related party transactions (RPTs) are common practices in a firm's business activities. This study examines the relationship between RPTs, corporate governance and firm performance. By using 94 non-financial Indonesian listed firms from 2007 to 2013, this study finds that RPTs have a significantly positive relationship with firm performance. RPTs in the forms of total size of RPTs, RPTs sales, RPTs purchases, RPTs entity, RPTs associates and joint firms and RPTs other affiliates are found to have significant positive relationship with returns on assets (ROA); RPTs liabilities and RPTs shareholders are found to have significant positive association with cash flow from operating activities (CFO) and RPTs person is found to have significant positive relationship with Tobin's Q. However, this study also finds that RPTs lending and RPTs entity sub-categorised as shareholders have negative effect on Tobin's Q and ROA, respectively.

Characteristics of corporate governance are found to have positive relationship with firm performance. The size of the board of director (BOD) and total size of the BOD and board of commissioner (BOC) are found to have positive relationship with ROA and Tobin's Q while the size of the BOC has positive relationship only with Tobin's Q. The independence of the BOC and committees established in the BOC have positive relationship with ROA, CFO and Tobin's Q. The expertise in finance and/or accounting of audit committee has positive relationship with ROA, but the positive effect is not found on the relationship between the size of audit committee and firm performance. In addition, characteristics of corporate governance in the forms of size of the BOD, size of the BOC, total size of BOD and BOC, independence of the BOC and committees established in the BOC moderate the relationship between several types of RPTs (especially RPTs sales and RPTs purchases) and firm performance. These findings have important implications for policy makers and standard setters, existing and potential shareholders/investors, and firm's board members.

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LIST OF ABBREVIATIONS

AAG	Asian Agri Group
AFC	Asian Financial Crisis
AoA	Articles of Association
ARA	Annual Report Award
ASEAN	Association of South East Asian Nations
AUD	Australian Dollar
BOC	Board of Commissioner
BOD	Board of Director
CARs	Cumulative Abnormal Returns
CEO	Chief Executive Officer
CFO	Cash Flow from Operation
CFOs	Chief Financial Officers
CGA	Corporate Governance Award
CGPNC	Corporate Governance Policy National Committee (Komite National Kebijakan Corporate Governance)
CMFISA	Capital Market and Financial Institution Supervisory Agency
COGS	Cost of Goods Sold
CPO	Crude Palm Oil
CSR	Corporate Social Responsibility
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
ERI	Expropriation Risk Index
EVA	Economic Value Added
FCGI	Forum for Corporate Governance in Indonesia
FE	Fixed Effect
GCG	Good Corporate Governance
GLS	Generalized Least Squares
GLS	Generalized Least Squares
GMS	General Meeting of Shareholders
GPNC	Governance Policy National Committee (Komite National Kebijakan Governance)
IAS	International Accounting Standard
ICMFISA	Indonesian Capital Market and Financial Institution Supervisory Agency
IDR	Indonesian Rupiah
IDX	Indonesia Stock Exchange
IFSA	Indonesia Financial Services Authority
IICD	Indonesian Institute for Corporate Directorship
IPO	Initial Public Offering
ISFAS	Indonesian Statement of Financial Accounting Standard
JATS	Jakarta Automated Trading System
KPEI	Kliring Penjaminan Efek Indonesia (Indonesia Clearing and Guarantee Corporation)
KSEI	Kustodian Sentral Efek Indonesia (Indonesia Central Securities Depository)

LM	Lagrange-Multiplier
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
RE	Random Effect
ROA	Return of Assets
ROE	Returns on Equity
RPTs	Related Party Transactions
USD	United States of America Dolar
VIF	Variation Inflation Factor
VOC	Vereenigde Oostindische Compagnie

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CHAPTER 1
INTRODUCTION

1.1 Background of the Study

Firms as legal nexus perform business activities via contractual relationship with suppliers and consumers. While undertaking these activities, firms develop contractual relationships with related parties so much so that the related party transactions (RPTs) become an integral part of business activities. There are many advantages for firms that undertake RPTs. Firms have access to insider information, and could better come to understand the credibility of other firms that they are involved with, the quality of the product that they are purchasing and the skills and expertise of the firms or individuals that deliver the services (Gordon & Henry 2005). Contracting through RPTs may also lead to better coordination, faster feedback and in-depth reciprocal knowledge as well as mitigating hold up problems (Pizzo 2013). In addition, firms could enhance firm value through RPTs by aligning firm operations, creating strategic partnerships, engaging in risk sharing and facilitating contracts (Kohlbeck & Mayhew 2010). In these examples, RPTs are undertaken for purely economic reasons.

On the other hand, there are some disadvantages of engaging in RPTs. Firstly, RPTs could contribute to the agency problem. Managers may undertake RPTs for personal benefits, such as to obtain a bonus, rather than for the interest of shareholders. The agency problem may also involve tunneling,[1] which results in the exploitation of minority interest (Johnson et al. 2000). Controlling shareholders can transfer the firm's resources for their own benefits through RPTs assets sales and RPTs sales. Secondly, RPTs could be a tool to prop up firm performance (Friedman, Johnson & Mitton 2003). A number of researchers document the motives for propping up, namely: meeting regulatory requirements for new equity offerings or avoiding delisting, improving performance when a firm is in financial distress or when a firm reports decreased earnings (Jian & Wong 2003; Jian & Wong 2010; Peng, Wei & Yang 2011; Yeh, Shu & Su 2012). Thirdly, RPTs could result in the government, as one of a firm's stakeholders, to experience tax revenue loss (Yeh, Shu & Su 2012).

Previous studies have documented the relationship between RPTs and firm performance. Khanna and Palepu (2000) examine the impact of affiliation of a diversified group on firm performance. They differentiate the diversified group into three classifications: most diversified group (defined as

[1] Tunneling refers to shifting a firm's resources to its controlling shareholders or other related parties (Johnson et al. 2000)

a group with more than seven industries), intermediate diversified group (defined as a group with five to seven industries) and least diversified group (defined as a group with one to four industries) and find that being affiliated to the most diversified group brings positive impact on firm performance. When group-affiliated firms announce increased earnings, it will also have the flow on effect of positively influencing the market value of other group members that do not announce their earnings (Bae, Cheon & Kang 2008). In addition, affiliation with business groups has a positive impact on growth of micro, small and medium firm's size (Bamiatzi et al. 2014). RPTs in the forms of operating activities, such as payment to employees and related suppliers is found to have significant positive association to firm performance measured with research and development expenditure, while loans to related parties have significant positive association with firm performance measured by investing cash outflows other than loans to related parties (Gallery, Gallery & Supranowicz 2008). Aharony, Wang and Yuan (2010) and Wong, Kim and Lo (2015) find that RPTs sales have a positive influence on firm performance. According to Jian and Wong (2003), RPTs sales undertaken to improve firm's efficiency, to avoid delisting or to conduct a rights issue all have an impact by increasing earnings. Chen, Chen and Chen (2009) examine RPTs purchases on firms with three different control relationships: 1) no control relationship; 2) firm acts as the controlling party; and 3) firm is controlled by the related party. Under control relationships 1) and 3), RPTs purchases are found to have positive effects on firm performance.

There is also evidence that RPTs have a negative effect on firm performance (Chauhan, Lakshmi & Dey 2016; Du, He & Yuen 2013; Gallery, Gallery & Supranowicz 2008; Jiang, G, Rao & Yue 2015; Kang et al. 2014; Wan & Wong 2015; Xiao & Zhao 2014). In listed firms with the intention of going private, RPTs are undertaken to cause losses and subsequently decrease the share price. This enables the controlling shareholders to buy the shares at a lower price (Du, He & Yuen 2013). Gordon, Henry and Palia (2004) find that the following RPTs: total number of RPTs, RPTs with executives and RPTs with non-executive board member have a negative influence on firm performance. In another study, Gordon and Henry (2005) find that RPTs management services also have negative influence on firm performance. RPTs in the form of lending to related parties are also found to have negative impact on firm performance, for example: RPTs loan and RPTs loan guarantees (Chauhan, Lakshmi & Dey 2016; Chen, Y, Chen & Chen 2009), RPTs loans to directors, officers and shareholders (Kohlbeck and Mayhew 2010) and RPTs other receivables (Jiang, G, Rao & Yue 2015). In addition, RPTs to facilitate tunneling tend to have a negative influence on firm performance (Cheung, Rau & Stouraitis 2006). RPTs lending are also being used for the purpose of tunneling and it is found that market respond negatively to this type of RPTs (Habib, Muhammadi & Jiang 2017; Jian & Wong 2003; Jian & Wong 2010; Juliarto et al. 2013).

Interest in corporate governance is growing throughout the world as the importance of good corporate governance becomes increasingly recognised. Corporate governance provides the

framework to achieve the firm's vision and mission, guidance to manage the firm as well as balancing the interest of the firm stakeholders (Das & Dey 2016). Monitored transparency and accountability within good corporate governance serve in governing the firm's affairs. It provides a system for better management and more prudent allocation of the firm's resources, which can enhance firm performance, contribute to the firm's share price and increase the shareholder value. In addition, good corporate governance could improve operating performance through better oversight of the firm's board over the firm's managers (Mobius & Keong 2002). These conditions could result in: value-maximising and efficient operating activities; less waste of resources; reducing the occurrences of tunneling such as asset-stripping and other diverting of firm assets; lowering the cost of capital; and improving external finance availability (Love 2011). Better governance can also reduce RPTs undertaken by controlling shareholders and in so doing can improve the future firm performance (Chauhan, Lakshmi & Dey 2016).

Based on studies on corporate governance and RPTs, there is evidence to suggest that corporate governance characteristics have effects on RPTs. Ownership is found to have a negative influence on firm performance in firms involved in RPTs, and furthermore that effect is moderated by the presence of audit committee (Cheung, Rau & Stouraitis 2006). It is also observed that corporate governance characteristics have less effect on the pricing of RPTs (Cheung, Qi, et al. 2009; Peng, Wei & Yang 2011). Moreover, the effects of corporate governance characteristics represented by the percentage of majority shareholder voting rights, size of the board of directors, degree of independence of audit committee and board of directors, choice of external auditor and listing in markets where minority interests have strong protection are found to have an influence on RPTs (Nekhili & Cherif 2011). Additionally, corporate governance reduces the effect of RPTs on firm value, the estimates of sensitivity of the firm's profitability to industry profitability (Black et al. 2015) and future performance (Chauhan, Lakshmi & Dey 2016).

In Indonesia, from 1 January 1995, RPTs are governed by the Indonesia Statement of Financial Accounting Standard 7 (ISFAS 7). According to paragraph 3 of ISFAS 7, a party is considered related if one party has authority to control another party or has significant influence over another party in operational and financial decision making. RPTs are defined as transferring resources or liabilities between related parties. ISFAS 7 also provides examples of parties that qualify as a related party. In relation to the nature of transactions with related parties, ISFAS 7 provides examples of RPTs that may need to be disclosed such as sales or purchases of goods, sales or purchases of fixed assets or other assets, deliveries or receipt of services, transfers of research and development, financing (including providing loan and capital investment by cash or non-cash), guarantees and collateral, and management agreements.

In 2010, ISFAS 7 was revised in order to be consistent with International Accounting Standard 24 (IAS 24) Related Party Disclosures. Following this revision, the definition of RPTs was expanded to include transfer of service in addition to transfer of resources or liabilities between related parties. Firms in their reporting are then required to identify and disclose the following: the nature of their relationship with related parties, the nature of the transactions, the amount and balance of the RPTs, including commitments between the reporting firms and its related parties. Furthermore, the amendments also emphasise a clear division and definition of related party as person/individual or entity. In this amendment, a related person refers to an individual or close family member who has a relationship with the reporting firm if he or she has a control or joint control over the reporting firm, or has significant influence, or is a key management person of the reporting firm, or a key management person of the reporting firm's parent. A related entity has a relationship with the reporting firm if they are shareholders of the reporting firm, or members of the same business group (or same owner), or carrying out the post-employment benefits of the reporting firm's employees, or the firm is controlled or influenced by the related person of the reporting firm. With regards to the nature of transactions, the amendment has added more examples of RPTs, such as rent, transfers with license agreements, transfers with leasing agreements, liability settlement for the reporting firm or related parties.

Many studies have examined RPTs in different contexts and forms and observed the impact of RPTs on firm performance. In the case in Indonesia, three significant studies have examined RPTs (Habib, Muhammadi & Jiang 2017; Utama & Utama 2009, 2014). Juliarto et al. (2013) look at RPTs in five Association of South East Asian Nations (ASEAN) countries, including Indonesia. Utama and Utama (2009) examine the impacts of announcements of RPTs and non-RPTs. They find that an announcement of RPTs has a lower impact on firm performance measured with cumulated abnormal returns compared to an announcement of non-RPTs. In addition, affiliation with business group also show a lower effect on firm performance measured with cumulated abnormal returns compared to non-affiliation with business group. In another study, Utama and Utama (2014) find that some factors such as corporate governance practices, size of RPTs and size of the firm influence positively the extent of RPTs disclosures. Firms with good corporate governance practices make disclosures regarding RPTs better than firms with weak corporate governance. Firms that engage in extensive RPTs provide more disclosure than firms undertaking less RPTs. Larger firms have better disclosure of RPTs compared to smaller firms (Utama & Utama 2014). Juliarto et al. (2013) find that RPTs loans to related parties are sometimes used to divert the firm's resources and managerial ownerships have positive relationship with tunneling. Moreover, they find that the business environment, foreign ownership and independent director as a corporate governance mechanism are not effective to prevent tunneling. Similarly, Habib, Muhammadi and Jian (2017) find that RPTs loans are used by politically connected firms to transfer the firm's resources to their related parties.

Previous studies have investigated the following types of RPTs: 1) total amount or total number of transactions (Berkman, Cole & Fu 2010; Gordon & Henry 2005; Kang et al. 2014); 2) RPTs based on the nature of transactions (Jian and Wong 2003; Gordon et al. 2004; Cheung et al. 2009; Chen et al. 2009; Jian and Wong 2010; Peng et al. 2011; Lei and Song 2011); 3) RPTs based on the related party (Friedman, Johnson & Mitton 2003; Gordon & Henry 2005); 4) RPTs based on the impact of RPTs (Berkman, Cole & Fu 2010; Cheung, Rau & Stouraitis 2006); 5) RPTs based on the motive (Wong, Kim & Lo 2015); 6) RPTs based on the complexity of the transactions (Kohlbeck & Mayhew 2010); and 7) RPTs based on the firm's activities/functions (Kang et al. 2014). The studies on RPTs in Indonesia emphasise the announcement of RPTs and group-affiliated firms compared to non-RPTs and non-group-affiliated firms (Utama & Utama 2009), disclosure of RPTs (Utama & Utama 2014), and RPTs lending for tunneling in political connected Indonesian firms (Habib, Muhammadi & Jiang 2017).

This study contributes to the existing studies on RPTs by examining the relationship of RPTs, especially RPTs based on the status of related party and RPTs with entity based on the nature of relationship, on firm performance and the effects of the characteristics of corporate governance as observed in Indonesia on that relationship. This study investigates several types of RPTs: 1) total size of RPTs; 2) RPTs based on the nature of the transaction: RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities; and 3) RPTs based on the status of related party: RPTs with related person/individual (hereafter referring to as RPTs person) and RPTs with related entity (hereafter referring to as RPTs entity). This study further sub-categorises the RPTs entity into: (i) related entities that are shareholders (hereafter referring to as RPTs shareholders); (ii) related entities that are associated firms, joint control firms, joint operations, and joint ventures (hereafter referring to as RPTs associates and joint firms); and (iii) related entities that are other affiliates (hereafter referring to as RPTs other affiliates). So far, there is no study that explores RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship.

In addition, a tax case through RPTs investigated by the Indonesian Tax Office that lead to a governance loss in tax revenue provide a reasonable background and justification for this study to examine the relationship between RPTs and firm performance.

1.2 Justification and Motivation for the Study

The following conditions and events have justified and motivated this study to examine the relationship of RPTs, characteristics of corporate governance and firm performance:

1) The amendment of ISFAS 7 in 2010, which clearly differentiates the related party into person/individual and entity, has justified and motivated study of the influence of each type of related party on firm performance, especially the impact of RPTs based on the status of related party, namely person/individual and entity, on short-term performance and long-term performance. Referring to the definition of related party in ISFAS 7 (Revised 2010), this study explores a new categorization of RPTs based on the status of related party and distinguish RPTs between a related party that is a person/individual and a related party that is an entity.

   In ISFAS 7 (Revised 2010), a related person refers to an individual or close family member who has a relationship with the reporting firm where he or she has control or joint control of, or has significant influence over, or is a member of the key management personnel of the reporting firm.

   An entity has a relationship with the reporting firm if:

   1) the entity and the reporting firm are members of a business group (meaning that the parent firm, subsidiaries, and further subsidiaries are related with the each other);
   2) the entity is an associate or joint venture of another firm in the same business group as the reporting firm;
   3) the entity and the reporting firm are joint ventures owned by the same third party;
   4) the entity is a joint venture of a third party and the reporting firm is an associate firm of such third party or otherwise, the entity is an associate firm of the third party and the reporting firm is a joint venture owned by such third party;
   5) the entity carries out a post-employment benefit plan for the benefit of the reporting firm employee or of any entity related to the reporting firm employee. If the reporting firm organises the post-employment benefit plan, the sponsor firm is classified as related to reporting firm where;
   6) the entity is controlled or jointly controlled by an individual or close family related to the reporting firm; and
   7) the entity, the entity's key person, or the entity's parent is significantly influenced by the individual classified as he or she who has control or joint control of the reporting firm.

   Thus, an entity is classified as a related entity with the reporting firm if they are shareholders, or members of the same business group, or have the same owner, or are carrying out the post-

employment benefits of the reporting firm's employees, or the firm is controlled or influenced by the related person of the reporting firm (Institute of Indonesia Chartered Accountants 2010).

In addition, this study also sub-categorises and examines the RPTs entity based on the nature of the relationship into: (i) RPTs shareholders; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates to find the influence of each type of related entity on firm performance, short-term performance and long-term performance. The condition that a firm is more likely to build a conglomeration or business group in conducting business activities also motivate this study to examine the influence of transaction with several types of related entity, which consist of RPTs shareholders, RPTs associates and joint venture, and RPTs other affiliates. So far, these two types of RPTs, namely RPTs based on the status of related party and RPTs with entity based on the nature of relationship, have not been explored.

2) A case that was investigated by the Indonesia Tax Office and settled by the Supreme Court of the Republic Indonesia in 2012, which had caused government loss in tax revenue, justifies and motivates the study of RPTs in the Indonesian context[2] (Supreme Court of the Republic of Indonesia 2014). According to Tanoto (2013), the RPTs modes of operations are conducted in three fraudulent ways, including creating: 1) fictitious cost; 2) fictitious transactions; and 3) transfer pricing. Many types of costs, such as construction of roads, cleaning lawns and other contractor payments (referred to as Jakarta Cost), were created in dozens of Asian Agri Group (AAG)'s subsidiaries during 2002 to 2005. These expenses were not really paid but the money was deposited into a personal account of the fraudulent parties, and then transferred to an overseas investment firm owned by Tanoto, the ultimate owner of AAG. In fictitious transactions mode, hedging contract (forward contract) transactions were created on CPO sales between AAG firms in Indonesia and their overseas related parties. These fictitious transactions were backdated and conducted by selling at a low price and buying at a high price in AAG's Indonesian firms, otherwise selling at a high price and buying at a low price in AAG's overseas firms. As a result, AAG's Indonesian firms always suffered losses and AAG's overseas firms produced profits. Thus, the money was transferred from AAG's Indonesian firms to AAG's overseas firms. In transfer pricing mode, AAG shifted taxable profit from a high tax rate country to a low tax rate country. Crude Palm Oil (CPO) was exported from AAG to the firms in tax haven countries at a low price, and then the AAG's overseas firms sold the CPO to the ultimate buyer at a higher market price. These transactions enabled them to avoid payment of higher taxes in the home country. The impact of this case led to a government loss in tax revenue amounting to approximately IDR1.26 trillion (equivalent to AUD125 million at a rate IDR 10,064.16/AUD as of 31 December 2015). This case justifies and motives study of the

[2] Decree of the Supreme Court of the Republic of Indonesia, case number: 2239 K/PID.SUS/2012 with defendant Suwir Laut alias Liu Che Sui alias Atak in court case of taxes (Asian Agri Group)

impact of RPTs on firm performance, especially RPTs based on the status of related party and RPTs with entity based on the nature of relationship on short-term performance (ROA and CFO) and on the long-term performance (Tobin's Q).

3) Corporate governance practices in Indonesia as measured by the corporate governance opacity index are below the average of the corporate governance practices in emerging markets (Claessens & Yurtoglu 2013). Referring to the study of Claessens and Yurtoglu (2013), the corporate opacity index of Indonesia is 9 whereas the average corporate governance opacity index for emerging markets is 9.5. The corporate governance opacity index is an index that measures the de-facto quality of corporate governance based on the real firm behaviour such as how accounting statements are being provided, earnings are being smoothed, and stock prices behave and reflect firm information (Claessens & Yurtoglu 2013). The finding on the level of Indonesian corporate governance practices justify and motivate this study to examine the relationship between corporate governance characteristics as observed in Indonesia and firm performance. In addition, Indonesia adopts a two board system to govern its corporations, which separates the board of directors (BOD) and the board of commissioners (BOC). The limited literature that differentiate the BOD and BOC encourage the study of characteristics of corporate governance by addressing the size of the BOD, size of the BOC, total size of BOD and BOC, the independence of the BOC, and the committees established in the BOC. Moreover, the Indonesia Capital Market and Financial Institution Supervisory Agency requires that at least 30% of the BOC are independent. This study seeks to examine whether these corporate governance practices together with RPTs undertaken by Indonesian listed firms have effects on firm performance and find whether the characteristics of corporate governance as observed in Indonesia are effective in moderating the relationship between RPTs and firm performance in Indonesia listed firms, especially the moderating role of those characteristics of corporate governance on the relationship of RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) on short-term performance and long-term performance.

1.3 Objectives of the Study

The primary objective of this study is to examine the relationship of RPTs and firm performance and the effects of the characteristics of corporate governance as observed in Indonesia on that relationship. In order to achieve this primary objective, the first specific objective is to examine the relationship between RPTs and firm performance. This study addresses various types of RPTs, including: 1) total size of RPTs; 2) RPTs based on the nature of the transaction: RPTs sales, RPTs

purchases, RPTs lending and RPTs liabilities; 3) RPTs based on the status of related party, namely RPTs person and RPTs entity; and 4) sub-categories of RPTs entity based on the nature of the relationship: (i) RPTs; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates. Several firm performance measurements are addressed in this study, namely: accounting-based performance measurements: return on assets (ROA) and cash flow from operating activities (CFO); and market-based performance measurement: Tobin's Q.

The second specific objective is to examine the relationship between the characteristics of corporate governance and firm performance. Since Indonesia has adopted the two board system, which separates the BOD from the BOC, this study addresses the following characteristics of corporate governance: the size of the BOD; the size of the BOC; the total size of BOD and BOC; the independence of the BOC; the committees established in the BOC; the size of audit committee; and the expertise in finance and accounting of the audit committee. Firm performance will also be measured by ROA, CFO and Tobin's Q.

The third specific objective is to examine the combined effect of RPTs and the characteristics of corporate governance on firm performance. To achieve this objective, this study will observe the relationship between RPTs and firm performance while controlling the corporate governance characteristics. This study also will look at the relationship between corporate governance characteristics and firm performance while controlling the RPTs. The types of RPTs addressed to achieve this objective are similar to the first objective. Similar to the previous objectives, firm performance will also be measured by ROA, CFO and Tobin's Q.

The fourth specific objective is to examine the interaction effects of the characteristics of corporate governance and RPTs on the relationship between RPTs and firm performance. This study addresses: total size of RPTs; RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); RPTs based on the status of related party (RPTs person and RPTs entity); and sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders; RPTs associates and joint firms; and RPTs other affiliates). In regards to the characteristics of corporate governance, this study addresses several characteristics based on the results of the third objective, including the size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC. Similarly, firm performance will also be measured by ROA, CFO and Tobin's Q.

1.4 Research Questions and Analysis Methods

The research questions in this study are developed based on the objectives presented in Section 1.3. The research questions are presented in Table 1.1.

This study uses generalized least squares (GLS) fixed effect method to analysis a panel data of 94 non-financial Indonesia listed firms for the period 2007 to 2013 (658 firm years) and answer the research questions. Firm performance with accounting-based performance measurement (ROA and CFO) and market-based performance measurement (Tobin's Q) are employed as dependent variables. The independent variables are various types of RPTs, the characteristics of corporate governance and firm characteristics.

Table 1.1 Research Objectives and Research Questions

Research Objectives	Research Questions
1. To examine the relationship between RPTs and firm performance	1. Is there a significant relationship between RPTs and firm performance? 1a Is there a significant relationship between total size of RPTs and firm performance? 1b Is there a significant relationship between RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities) and firm performance? 1c Is there a significant relationship between RPTs based on the status of the related party (RPTs person and RPTs entity) and firm performance? 1d Is there a significant relationship between sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders; RPTs associates and joint firms; and RPTs other affiliates) and firm performance?
2. To examine the relationship between the characteristics of corporate governance and firm performance	2. Is there a significant relationship between the characteristics of corporate governance and firm performance? 2a Is there a significant relationship between size of the BOD, size of the BOC, and total size of the BOD and BOC and firm performance? 2b Is there a significant relationship between the independence of the BOC and firm performance? 2c Is there a significant relationship between the committees established in the BOC and firm performance? 2d Is there a significant relationship between size of audit committee and firm performance? 2e Is there a significant relationship between the expertise in finance and/or accounting of audit committee and firm performance?

Research Objectives	Research Questions
3. To examine the combined effect of RPTs and the characteristics of corporate governance on firm performance	3. Are there any significant effects of RPTs and the characteristics of corporate governance on firm performance? 3a While controlling for each characteristics of corporate governance, is there a significant effect of total size of RPTs on firm performance? 3b While controlling for each characteristics of corporate governance, is there a significant effect of RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities) on firm performance? 3c While controlling for each characteristics of corporate governance, is there a significant effect of RPTs based on the status of the related party (RPTs person and RPTs entity) on firm performance? 3d While controlling for each characteristics of corporate governance, is there a significant effect of RPTs entity based on the nature of the relationship (RPTs shareholders; RPTs associates and joint firms; and RPTs other affiliates) on firm performance? 3e While controlling for each type of RPTs, is there a significant effect of size of the BOD, size of the BOC, and total size of the BOD and BOC on firm performance? 3f While controlling for each type of RPTs, is there a significant effect of the independence of the BOC on firm performance? 3g While controlling for each type of RPTs, is there a significant effect of the committees established in the BOC on firm performance?
4. To examine the interaction effects of the characteristics of corporate governance and RPTs on firm performance	4. Is the relationship between RPTs and firm performance moderated by the characteristics of corporate governance? 4a Is the relationship between total size of RPTs and firm performance moderated by the characteristics of corporate governance? 4b Is the relationship between RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities) and firm performance moderated by the characteristics of corporate governance? 4c Is the relationship between RPTs based on the status of the related party (RPTs person and RPTs entity) and firm performance moderated by the characteristics of corporate governance? 4d Is the relationship between sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) and firm performance moderated by the characteristics of corporate governance?

1.5 Scope of the Study

This study is based on contracting theory, stakeholder theory, agency theory and management theory. The review of previous studies is presented to explain the variables that have been used related to RPTs, the characteristics of corporate governance, firm performance and firm characteristics. This study uses RPTs variables, corporate governance characteristics variables, firm performance variables, firm income tax expense variables and firm characteristics variables that are available in the annual reports and audited financial statements of the firms, on websites and in the OSIRIS data base.

This study uses 94 non-financial Indonesian listed firms for the period 2007 to 2013 (658 firm years) as final sample. The sample is about 24.54% of the Indonesian listed firms in 2007. The sample period captures the new RPTs standard that was implemented in 2011. This study excludes financial and insurance institutions due to the different regulations and requirements that apply to these firms.

1.6 Contribution of the Study

With regards to empirical contributions, this study contributes in several ways:

1) Previous studies have investigated the following types of RPTs:
   (1) total amount or total number of transactions (Berkman, Cole & Fu 2010; Gordon & Henry 2005; Kang et al. 2014);
   (2) RPTs based on the nature of transactions (Jian and Wong 2003; Gordon et al. 2004; Cheung et al. 2009; Chen et al. 2009; Jian and Wong 2010; Peng et al. 2011; Lei and Song 2011);
   (3) 3) RPTs based on the related party (Friedman, Johnson & Mitton 2003; Gordon & Henry 2005);
   (4) RPTs based on the impact of RPTs (Berkman, Cole & Fu 2010; Cheung, Rau & Stouraitis 2006);
   (5) RPTs based on the motive (Wong, Kim & Lo 2015);
   (6) RPTs based on the complexity of the transactions (Kohlbeck & Mayhew 2010); and
   (7) RPTs based on the firm's activities/functions (Kang et al. 2014).

   The studies on RPTs in Indonesia emphasise the announcement of RPTs and group-affiliated firms compared to non-RPTs and non-group-affiliated firms (Utama & Utama 2009), disclosure of RPTs (Utama & Utama 2014), and RPTs lending for tunneling in politically connected Indonesian firms (Habib, Muhammadi & Jiang 2017).

This study contributes to the studies on RPTs by exploring the relationship of RPTs based on the status of related party: person/individual and entity on firm performance, following the amendment of ISFAS 7 (Revised 2010), which has redefined and clearly divided related party into person/individual and entity. This type of RPTs is yet to be explored. To get a better understanding on the influence of RPTs entity, this study further sub-categorises RPTs entity into: (i) RPTs shareholders; (ii) RPTs with associates and joint firms; and (iii) RPTs other affiliates. The types and sub-categories of RPTs entity used in this study will enrich the literature on RPTs and firm performance.

When this study examines the link of RPTs on firm performance, it looks at both the short-term impact and long-term impact. For short-term impact, this study looks at the link to firm's accounting based performance measured by ROA and CFO. For long-term impact, this study investigates the link to firm's market based performance measured by Tobin's Q. Thus, by looking at RPTs based on the status of related party: person/individual and entity and RPTs with entity based on the nature of relationship: RPTs shareholders, RPTs associates and joint firms, and RPTs other affiliates, this study contributes by exploring the link of those two types of RPTs on short-term performance and on long-term performance. That is, which type of RPTs based on the status of related party and which type of RPTs with entity based on the nature of relationship gives the short-term impact, which gives the long-term impact, or whether they have both short- and long-term impact.

2) Most literature on corporate governance examines the size of the firm's board whereas literature that examines the size of BOD and size of BOC is limited. This study examines several characteristics of corporate governance in a two board system, such as: size of the BOD, size of the BOC, the independence of the BOC, the committees established in the BOC, size of the audit committee, and the expertise in finance and/or accounting of audit committee. Therefore, this study will complement the literature on corporate governance by examining the characteristics of corporate governance in a two board system, which separates the BOD and BOC.

3) This study also contributes to the literature by examining the interaction effects of the size of the BOD, size of the BOC, total size of BOD and BOC, the independence of the BOC, and the committees established in the BOC as the characteristics of corporate governance and RPTs on the relationship between RPTs and firm performance, especially on RPTs based on the status of related party: person/individual and entity and RPTs with entity based on the nature of relationship: RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates. The findings on the moderating roles of the characteristics of corporate governance on the relationship of RPTs and firm performance, especially RPTs based on the status of

related party and RPTs with entity based on the nature of relationship, will enrich the literature on RPTs, corporate governance and firm performance.

With regards to the practical contribution, the findings of this study will also provide information that may be useful for policy makers, standard setters and regulators; existing and potential shareholders/investors; as well as the firm's board members, especially for independent directors and commissioners as follows:

1) The findings of this study will provide information on the importance of RPTs, with regards to RPTs based on the status of related party: person/individual and entity and RPTs with entity based on the nature of relationship, and disclosure of RPTs as consideration and input for policy makers, standard setters and regulators when they want to improve and refine the clarity of the current standard on RPTs, and promote compliance with the standard related to the disclosure of RPTs.

2) Shareholders may look at RPTs that are undertaken by the firm. By looking at the RPTs through their disclosure, the existing shareholders/investors can ensure that the firm is managed properly and RPTs are not used to obtain personal benefits by the management. Based on the RPTs that are undertaken and disclosed in the notes of audited financial statements, existing and potential shareholders/investors may assess the potential risks of the firm that may occur from related parties in which the firm are involved before they make investment decisions.

3) For the firm's board members, they should pay attention and consider the impact to the firm and the firm's stakeholders of engaging in RPTs, as well as conducting prudent process when monitoring the RPTs undertaken by the firm.

1.7 Organisation of the Thesis

Chapter 2 provides an overview of Indonesian capital market, regulation framework of Indonesian corporate governance and Indonesian regulation framework on RPTs. The overview of the Indonesian capital market describes the history, structure and recent development of the Indonesian capital market. The overview of the Indonesian corporate governance framework explains the development of corporate governance in Indonesia, role of board of commissioner (BOC), role of board of director (BOD), role of audit committee and role of committees established in the board of commissioner. The overview of the regulation framework of RPTs in Indonesia describes the Indonesian Statement of Financial Accounting Standard 7 (ISFAS 7), ISFAS 7 (Revised 2010), and the Indonesian Capital Market and Financial Institution Supervisory Agency regulation framework in RPTs.

Chapter 3 discusses the existing literature on the theories that relate to the RPTs, corporate governance and firm performance. Those theories include contracting theory, stakeholder theory, agency theory and management theory. It also reviews the empirical studies in RPTs, corporate governance and firm performance, hypothesis development and theoretical framework.

Chapter 4 explains the methodology and variables measurements that are used in this study, including: research objectives, research design, sample selection and data collection, variable measurements, data analysis, regression models, statistical validity test and endogeneity issue in corporate governance. The section on variable measurements discusses the definition and measurement of the dependent, independent and control variables used in this study.

The results and discussion of this study is reported in Chapter 5, Chapter 6 and Chapter 7. Chapter 5 presents the results and discussion of RPTs and firm performance while Chapter 6 reports the results and discussion of corporate governance characteristics and firm performance. Chapter 7 describes the results and discussion of RPTs, corporate governance characteristics and firm performance.

Chapter 8 provides the summary and future research. This chapter discusses the overview of this study, summary of results, implications of the findings, limitation of the study and recommendations for future research.

1.8 Summary of the Chapter

Having become an integral part of business, RPTs can influence a firm's performance. Firms are involved in RPTs for different reasons: propping up or earnings management, tunneling and purely economic reasons. Thus, they may provide advantages and disadvantages for the firm or the firm's stakeholders. Empirical studies reveal that RPTs can have positive or negative relationship with firm performance and corporate governance has moderated those effects. The amendment of ISFAS 7, the below average status of corporate governance practices in Indonesia, the limitation of literature on the two board system and a case that resulted in a government loss in tax revenue have justified the conduct of this study. The main objective of this study is to examine the relationship between RPTs and firm performance and the effects of the characteristics of corporate governance as observed in Indonesia on that relationship. Several specific objectives and research questions are developed to achieve this main objective.

The following chapter provides a review of recent development on capital market, RPTs and corporate governance in Indonesia.

CHAPTER 2

CAPITAL MARKET, RELATED PARTY TRANSACTIONS AND CORPORATE GOVERNANCE IN INDONESIA: REVIEW OF RECENT DEVELOPMENT

2.1 Introduction

Indonesia is an emerging market with the majority of its listed firms engaging in RPTs. Since RPTs can have an impact on the reporting of profits and losses statement of the firm, corporate governance and regulations for RPTs have a critical role to play. This chapter presents an overview of the Indonesian capital market, Indonesian regulatory framework in corporate governance and Indonesian regulation framework in RPTs. The overview of the Indonesian capital market will explain the history, structure and its recent development. The corporate governance section will discuss the history of Indonesian corporate governance, two board system of corporate governance, role of the BOC, role of the BOD, role of audit committee and role of other committees in the BOC. The regulatory framework of RPTs in Indonesia discusses ISFAS 7, ISFAS 7 (Revised 2010) and regulation by the Indonesian Capital Market and Financial Institution Supervisory Agency (ICMFISA, currently Indonesian Financial Services Authority or IFSA) on RPTs, which is particularly implemented in Indonesian public listed firms.

2.2 Indonesian Capital Market

This section describes the history and structure of the Indonesian capital market, followed its recent development.

2.2.1 History of Indonesian Capital Market

The history of the Indonesian capital market can be classified into three phases: 1) influence of the Netherlands (1912 – 1949); 2) transition phase (1950 – 1986); and 3) early growth phase (1987 – 1991). In the first phase, the capital market was mainly influenced by the Netherlands government. In 1912, the Indonesian capital market was introduced by the Netherlands government for the interest of the colonial government and the Netherlands commerce association, called Vereenigde Oostindische Compagnie (VOC). On 14 December 1912, Vereniging voor de Effectenhandel (Batavia Stock Exchange) was established and securities were first traded (Ahmad 2004; Sunariyah 2011). In this period, the Batavia Stock Exchange consisted of 13 members, and they traded the stocks and bonds of the Netherlands' plantation firms that were operated in Indonesia, bonds issued by the Netherlands government, stocks of the United States of America firms, and

other Netherlands securities. In 1925, the Surabaya Stock Exchange and Semarang Stock Exchange were opened on 11 January and 1 August respectively (Rusdin 2008). Members were mainly Dutch businessmen and funders were individuals, retired persons, investment fund firms, and firms that were owned by the Netherlands. Practically, securities exchanges were held for Netherlands interests (Ahmad 2004).

However, the development and growth of the Indonesian capital market was hampered due to World Wars I and II and the transfer of authority from the colonial government to the Republic of Indonesia government. The commencement of World War II in 1939 resulted in the Surabaya Stock Exchange, Semarang Stock Exchange, and Jakarta Stock Exchange (formerly Batavia Stock Exchange) ceasing operation (Ahmad 2004; Rusdin 2008; Sunariyah 2011). As a consequence, the stock exchange activities could not be operated.

The second phase of the Indonesian capital market was the transition period in which the influence in capital market shifted from the Netherlands government to the Indonesia government. In 1950, the Indonesia government issued bonds to promote capital market activities. On 3 June 1952, the Jakarta Stock Exchange was reopened after ceasing operation for about 12 years (Ahmad 2004; Sunariyah 2011). Indonesian capital market activities then continued to grow until 1958. In 1958, Indonesian capital market activities declined due to the nationalisation of Netherlands firms and because many of the Dutch in Indonesia were leaving (Rusdin 2008). Then, in 1976, two institutions, namely the Capital Market and Financial Institution Supervisory Agency (CMFISA) and PT Danareksa, were established to promote the capital market (Fahmi 2013; Rusdin 2008). CMFISA was established to regulate and supervise the capital market and PT Danareksa was appointed as stock brokerage. On 10 August 1977, capital market activity was officially opened by the Second President of Republic of Indonesia (Sunariyah 2011). However, the capital market continued to regress and there were no additional listed firms until the end of 1988 (Ahmad 2004).

The early growth phase between 1987 and 1991 marked the beginning of a new life for the Indonesian capital market. This phase started after the Indonesia government implemented the incentives and regulations such as the Package of December Policy 1987 (Paket Kebijaksanaan Desember 1987 - Pakdes 87), Package of December Policy 1988 (Paket Desember 1988 - Pakdes 88), and Package of January 1990 (Paket Januari 1990) (Ahmad 2004; Rusdin 2008; Sunariyah 2011). These policies are popularly known as deregulation in the economy and Indonesian capital market. The purpose of these policies was to promote capital market growth, including to: 1) improve transparency, with increased disclosure required from public listed firms and more comprehensive information presented in the prospectus for the purpose of investor protection; 2) increase the speed of the process of securities issuance;

3) improve the liquidity of capital market; and 4) improve the professional supporting institutions in the capital market (Ahmad 2004). Thereafter, the capital market continues to grow.

2.2.2 Structure of Indonesian Capital Market

Capital Market and Financial Institution Supervisory Agency (CMFISA) is the regulatory and supervisory body in the Indonesian capital market from 1976 to 2011. CMFISA was a government institution under the authority of the Ministry of Finance, whose main duties were to train, regulate and supervise the daily capital market activities in order to provide well-organised, fair and efficient capital market, and to protect investors (The Republic of Indonesia 1995). The authority of CMFISA was stipulated in Law 8/1995 Capital Market.

On 22 November 2011, the authority of CMFISA was transferred to the Indonesia Financial Services Authority (IFSA) as stipulated in Law 21/2011 Financial Services Authority (Undang-undang No. 21 Tahun 2011 mengenai Otoritas Jasa Keuangan). IFSA was established for the following reasons: 1) to be an independent institution supervising the banking, capital market, mutual funds, leasing firms, pension funds, and insurance industries; 2) to manage the complexity and varieties of financial services products of the above industries; 3) to regulate and supervise the financial services firms conglomeration; 4) to regulate and supervise globalisation in the financial services industry; and 5) to replace the Central Bank as the supervisor in the banking industry. Through these new roles, activities in the financial services sector are able to function in a well-organised, fair, transparent and accountable manner; allowing the financial system to grow in a sustainable and stable manner; and protecting the interest of the investors and society at large (The Republic of Indonesia 2011).

Several other institutions are also established in the Indonesian capital market, including the Indonesia Stock Exchange (Bursa Efek Indonesia - IDX), the Indonesia Clearing and Guarantee Corporation (Kliring Penjaminan Efek Indonesia - KPEI), the Indonesia Central Securities Depository (Kustodian Sentral Efek Indonesia - KSEI), securities firms, supporting institutions, supporting professions, investors, listed firms, public firms, and mutual funds. IDX is an entity that organises and provides systems and facilities to bring parties together who want to sell and buy securities. KPEI performs the clearing and guarantee services of stock exchange transactions so that the transactions are executed in a well-organised, fair and efficient manner. KSEI organises central depository activities for custodian banks, securities firms and other parties; central custody and settlement (Rusdin 2008). Securities firms are entities that conduct business activities with the licences issued by IFSA as the underwriter and/or investment manager, whereas securities firm representatives are individuals who have licences from IFSA as underwriter representatives, broker-dealer representatives, and/or investment manager representatives. Supporting institutions are institutions that support capital market operational activities, functioning

to serve professionals and the public, such as custodian banks, securities administrators, trustees and rating agencies. Supporting professions are registered professionals at IFSA, including accountants, legal consultants, appraisers, notaries and other professions.

2.2.3 Recent Development of Indonesian Capital Market

As the result of deregulation in the Indonesian capital market from 1987 to 1991, the development of the Indonesian capital market has been remarkable. On 13 July 1992, the operation of stock exchange transferred to a private firm (Sunariyah 2011). Rapid development of the capital market needs efficiency and automation. On 22 May 1995, the automated trading system "Jakarta Automated Trading System" (JATS) was adopted in Jakarta Stock Exchange (Fahmi 2013).

The Indonesian capital market continues to improve its systems and facilities. On 21 July 2000, scripless trading was launched and on 28 March 2002, remote trading was implemented (Indonesia Stock Exchange 2014). In 2007, the Surabaya Stock Exchange and Jakarta Stock Exchange were merged into the Indonesia Stock Exchange (IDX). According to Fahmi (2014), there are many reasons for merging the Surabaya and Jakarta Stock Exchanges into one single entity. Firstly, the Indonesian capital market was considered less developed compared to other countries in terms of market capitalisation value, number of listed firms, investment products and lower domestic investor competition. Secondly, a bigger stock exchange enables better competition with other stock exchanges in the region. Thirdly, the single stock exchange increases efficiency and enables it to face global competition. Fourthly, the single stock exchange allows the IDX to serve as a medium to promote the capital market and support the equalisation of economic development in Indonesia (Fahmi 2014).

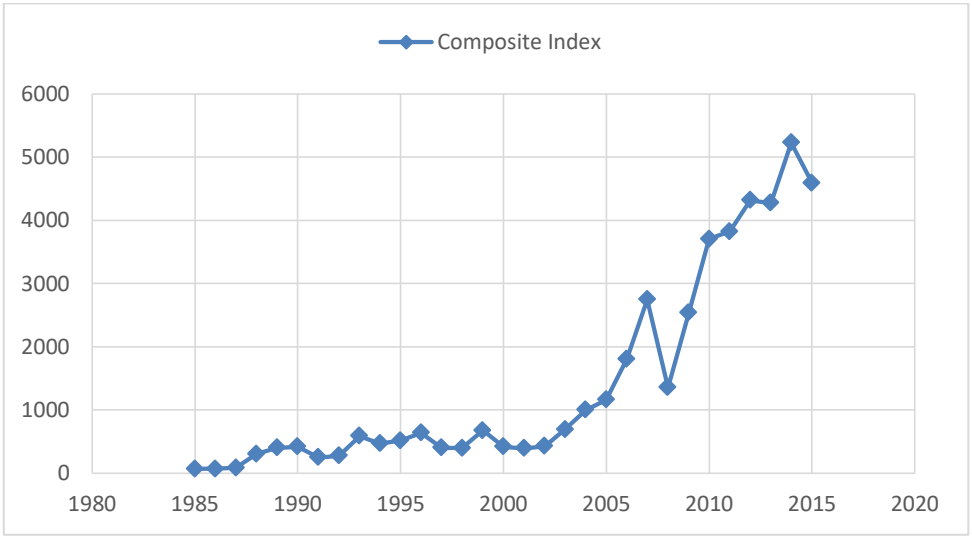
Further, on 2 March 2009, the IDX launched its New Trading System, called JATS Next-G. The benefits of this new system are: 1) to enable the IDX to process about 1 million transactions per day, which is four times larger than the previous system; and 2) be equipped with better infrastructure back-up to protect when there is disruption.[3] On 6 January 2014, the Indonesia Stock Exchange also changed the lot size of trading from 500 shares to 100 shares per lot (Indonesia Stock Exchange 2014). This new lot size policy enables more people to buy shares because less money is needed for one lot transaction. However, the change in lot size has increased the trading frequency and workloads in the online systems.

All these enhancements have improved the growth of the IDX. In 2014, the IDX Composite Index achieved its highest level, at 5,227 points as shown in Figure 2.1. This level represents an increase of 22.3% in one year (from 4,274 points in 2013), and an increase of 5.23 times in the preceding

[3] Retrieved from http://www.thejakartapost.com/news/2009/02/12/idx-introduce-new-trading-system.html

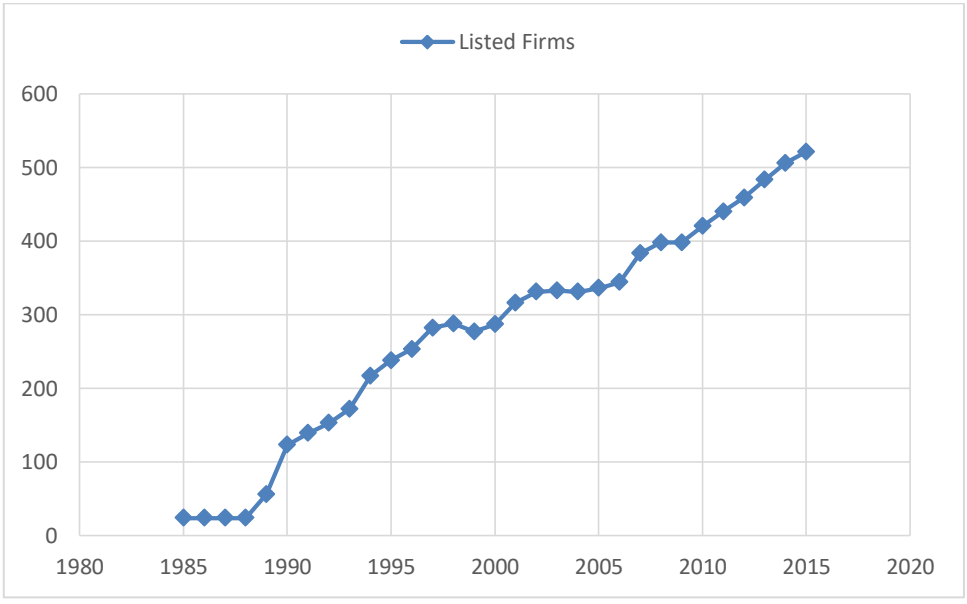
decade (from 1,000 points in 2004). The number of listed firms in the IDX increased from year to year, except for the years 1999 (decreasing from 288 to 277 firms) and 2004 (decreasing from 333 to 331) as presented in Figure 2.2. There are 521 firms listed in IDX at the end of year 2015 (Indonesia Stock Exchange 2014, 2015).

Figure 2.1 Composite Index in Indonesia Stock Exchange



Source: Indonesia Stock Exchange Annual Statistics Reports 2014 and 2015

Figure 2.2 Listed Firms in Indonesia Stock Exchange



Source: Indonesia Stock Exchange Annual Statistics Reports 2014 and 2015

2.3 Corporate Governance in Indonesia

This section discusses the history of corporate governance in Indonesia, the two board system of board governance, the role of board of commissioners (BOC), the role of board of directors (BOD), the role of the audit committee, and the role of other committees established in the BOC.

2.3.1 History of Indonesian Corporate Governance

The Asian Financial Crisis (AFC) in 1998 stimulated change in the Indonesian corporate governance framework. The weaknesses of corporate governance in that period contributed to Indonesia's financial crisis and that in four other Asia countries (South Korea, Malaysia, the Philippines and Thailand). Weaknesses in corporate governance in these countries were characterised by: 1) businesses investing in low quality projects; 2) large business groups being involved in excessive business diversification; 3) businesses holding higher than average debts, especially foreign short-term loans that were not hedged; 4) members of BOD and BOC not functioning effectively; 5) weak internal control systems; 6) audit systems not performing effectively; 7) less transparent information about firms; and 8) poor law enforcement (Daniri 2014).

In 1999, the Indonesia government established the National Committee on Good Corporate Governance (NCGCG – Komite Nasional Kebijakan Corporate Governance) based on the decree of the Coordinating Minister of Economic Affairs. NCGCG, which involved 30 representatives from public and private sectors, recommended the national good corporate governance (GCG) principles. The establishment of NCGCG was followed by the establishment of other organisations such as the Indonesian Institute for Corporate Directorship (IICD) in 2000, Indonesian Institute for Corporate Governance (IICG) in 2000, Forum for Corporate Governance in Indonesia (FCGI) in 2000, Indonesian Institute for Commissioners and Directors (IIComD) in 2000, and Indonesian Institute of Audit Committee (IIAI) in 2004. In 1999, NCGCG issued the *National GCG Guidance*, since revised in 2001 and in 2006, as the *Indonesia's Code of GCG*. In 2004, the name of NCGCG was changed to become the National Committee on Governance (NCG – Komite Nasional Kebijakan Governance) to accommodate public institution governance (Daniri 2014).

Several actions have been taken to develop and promote the implementation of GCG. NCG issued a series of sectorial guidelines to equip the *National GCG Guidance*, including: 1) GCG guidance for the banking industry (2004); 2) independent commissioner guidelines and the establishment of audit committee guidelines (2004); 3) whistle-blowing system guideline (2008); 4) GCG guidelines for insurance and reinsurance firms (2009); 5) business ethics guidelines; 6) governance-based risk management implementation guidelines; 7) Islamic business guidelines (2011); and 8) public governance guidelines. Other initiatives were also established to provide incentives or rewards to firms that practice and implement GCG principles, for example the Annual Report Award (ARA),

Capital Market Awards (CMA), IICD Corporate Governance Award (CGA), and IICG Award – Most Trusted Award (Daniri 2014).

Moreover, in 2014, IFSA issued the Indonesia corporate governance roadmap. The purposes of this roadmap are to: 1) set milestones for corporate governance improvement of issuer and publicly listed firms; 2) comprehensively improve corporate governance regulation and practices in issuer and publicly listed firms; and 3) improve corporate governance practices in Indonesian issuer and publicly listed firms in order to at least have an equal position with other firms in ASEAN region. Areas of improvement set out in the roadmap include: 1) corporate governance framework; 2) shareholders protections; 3) stakeholders roles; 4) information transparency; and 5) roles and responsibilities of BOD and BOC (Indonesia Financial Services Authority 2014).

2.3.2 Two Board System of Corporate Governance

Indonesia utilises the two board system for corporate governance, characterised as follows. First, the two board system separates the functions, duties and responsibilities of the firm management and the supervisor of the firm management, namely BOD and BOC. Members of the BOD manage the daily activities of the firm, represent the firm, provide information to the BOC, as well as answering queries from the BOC. Members of the BOC will act as the supervisor and advisor of the BOD in issues relating to the firm's business activities. Second, the separation of the functions, duties and responsibilities of two boards prevents intervention and duality functions. Each board (BOD and BOC) has its own functions and a person is only allowed to sit either in BOD or BOC. Third, the BOC is not involved in management functions, rather it is thoroughly encouraged to carry out its supervisory and advisory duties for the BOD. Other countries that also adopt the two board system are Denmark, Germany, the Netherlands and Japan (Forum for Corporate Governance in Indonesia -). Law 40/2007 Limited Liability Companies, also regulates and accommodates the corporate governance principles, including General Meeting of Shareholders (GMS), BOC and BOD (Daniri 2014).

According to Cadbury (1995) in Daniri (2014), there are three main differences between the one and two board system. Firstly, in the one board system, even though there are a number of non-executive directors as outsiders, the supervisory functions and management functions are not separated. All directors, whether their duties are managing or supervising, have the same duties and responsibilities in the firm. As a consequence, the directors with supervisory duties have to approve the management since the functions are only monitoring. In contrast, in two board systems, the management functions and the supervisory and advisory functions are separated in terms of duties, authorities and responsibilities. Secondly, the Chief Executive Officer (CEO), whose duty is to lead the executive directors and non-executive directors, exists only in the one board system and not in the two board system. In the two board system, the BOD and BOC are led

by a president director and president commissioner, respectively. Thirdly, the qualification of non-executive directors in the one board system and members of the BOC in two board system may have different backgrounds. In the one board system, non-executive directors may be employees of the firm, while in the two board system, there is a requirement for an individual to be appointed as the member of BOC. In addition, Daniri (2014) states that the one board system allows the existence of CEO duality, which does not occur in the two board system. The separation of management functions and the supervisory and advisory functions provides for the practices of good corporate governance, which may effectively reduce the agency problem. In relation to the committees, in the one board system, the role of committees is to ensure separation between the management functions and the supervisory and advisory functions. In the two board system, the role of committees in the BOC is to serve and support the BOC as a balance for the firm to ensure that the firm is being managed effectively and professionally.

2.3.3 Role of the Board of Commissioners (BOC)

According to Law 40/2007 Limited Liability Companies, the BOC is defined as a firm's organ whose tasks are to conduct a general and/or a specific supervisory duty in accordance with the articles of association (AoA) and to provide advice to the BOD. The BOC's supervisory and advisory functions include supervising policies of management and assessing general performance of the BOD's management in accordance with the firm and business of the firm. These supervisory and advisory functions should be carried out in accordance with the interest of the firm and the purposes and objectives of the firm. The functions of the BOC, which are adopted from Organisation for Economic Co-operation and Development (OECD) principles of corporate governance, include reviewing and monitoring functions. The BOC conducts: 1) reviews and provides guidelines in the firm's strategy, major action plan, risk policy, annual budget and business plan; 2) sets performance objectives; 3) monitors implementation and firm performance; 4) oversees the main capital expenditures, acquisitions and divestitures; 5) reviews the remuneration of key executives and board members; 6) ensures a formal and transparent process of board nomination; 7) monitors and manages potential conflict of interest of management, board member and shareholders, including misuse of the firm's assets and RPTs; and 8) monitors the effectiveness of corporate governance practices under which it operates, makes changes as needed and oversees the process of disclosure and communication (Forum for Corporate Governance in Indonesia -).

Referring to Law 40/2007 Limited Liability Companies, the BOC should consist of one or more members. BOC members serve as a council, and no single member of BOC can solely act, specifically they must act based on the resolution of BOC. Firms whose business are to collect and manage public funds, firms issue acknowledgements of indebtedness to the public, or publicly listed firms are required to have at least two members in their BOC. According to the National

Committee on Governance (2006), each BOC member is equal, including the president commissioner. The president commissioner has the task of coordinating the activities of the BOC.

Moreover, Law 40/2007 Limited Liability Companies also regulates and accommodates the independent commissioner and delegated commissioner. The firm's AoA may arrange the presence of one or more independent commissioners. The independent commissioner is defined as a BOC member who does not affiliate with the main shareholders, members of the BOD and or other members of the BOC. The independent commissioner is appointed by GMS resolution.

IDX[4] also requires the listed firm to have at least 30% independent commissioners as BOC members (Jakarta Stock Exchange 2004). According to the CMFISA Decree 643/2012[5], the requirements for independent commissioners are: 1) are not a person who works or has authority and responsibility to plan, lead, control, or supervise the firm in the last six months; 2) has no direct or indirect ownership in the firm, 3) has no affiliation relationship with the firm, BOC members, BOD members, or the main shareholder of the firm; and 4) has no direct or indirect business relationship with the firm or with the firm business activities (Capital Market and Financial Institution Supervisory Agency 2012). FCGI adds further criteria for the independent commissioner, which it adopted from the Australian Stock Exchange Authority criteria for outside directors. These criteria are: 1) has not been employed in an executive capacity by the firm or other group member or a commissioner after ceasing to hold any such employment within the last three years; 2) are not a principal or a professional adviser of the firm or other group member; 3) are not a significant supplier or customer of the firm or other group member or an officer of or otherwise associated directly or indirectly with a significant supplier or customer; 4) has no significant contractual relationship with the firm or other group member other than as a commissioner of the firm; and 5) are free from any interest and any business or other relationship which could materially constrain the commissioner's ability to act in the best interest of the firm (Forum for Corporate Governance in Indonesia -, page 8).

According to the *Indonesia's Code of GCG* (National Committee on Governance 2006), the composition of the BOC should be such that it is enabled to make decisions effectively, quickly and correctly, and to take actions independently. The required composition of BOC membership is that: 1) the number of the BOC members should be adapted with the firm complexity with regard to

[4] Referred to Decree of the Director of Jakarta Stock Exchange Number Kep-305/BEJ/07-2004 dated 19 July 2004 concerning Regulation No. I-A about Registration of Stocks and Non-Stock Equity Securities Issued by Listed Firms

[5] Referred to Decree of the Chairman of CMFISA Number Kep-29/PM/2004 revised with No. Kep-643/BL/2012 dated 7 December 2012 concerning Establishment and Implementation Guidelines for Audit Committee.

the effectiveness of decision making; 2) BOC may consist of a commissioner who is not from an affiliated party, called the independent commissioner, and an affiliated commissioner; 3) the number of independent commissioners should ensure that supervisory mechanisms are carried out effectively and in accordance with regulations and legislation. In addition, one of the independent commissioners should have an accounting or finance background (National Committee on Governance 2006).

2.3.4 Role of the Board of Director (BOD)

According to Law 40/2007 Limited Liability Companies, the BOD is defined as the firm's organ with full authority and responsibility to manage the firm for the interest of the firm in accordance with the purposes and goals of the firm, and to represent the firm in and out of court in accordance with the provisions of the AoA. The BOD shall consist of one or more members. Firms whose business are related to public fund collection and or management, firms that issue acknowledgements of indebtedness to the public, and public firms must have at least two members in the BOD. In the case that the BOD has two or more members, the distribution of management tasks and authorities among the BOD members are determined by GMS resolution. When the determination does not exist, the distribution of tasks and authorities of the BOD members shall be determined by BOD resolution. In addition, as stated in article 99 Law 40/2007, members of BOD do not have the authority to represent the firm if there is a case before the courts between the firm and such BOD members or where such BOD member has a conflict of interest with the firm. Then the persons entitled to represent the firm are: 1) another BOD member who does not have a conflict of interest with the firm, 2) BOC, in the case that all of the BOD members have a conflict of interest with the firm, or 3) other parties appointed by the GMS, in the case that all BOD members and all BOC members have a conflict of interest with the firm (The Republic of Indonesia 2007).

IDX[6] also requires that the listed firm has at least one non-affiliated director (independent director) in the BOD membership. The requirements for an independent director are: 1) no affiliation relationship with the controlling shareholder in such listed firm at least six months before the appointment as independent director; 2) no affiliation relationship with the BOC member or other director in such listed firm; 3) no double position as director in other firm; and 4) not the employee in the capital market supporting institution or supporting profession which provide services to the such listed firm at least six months before the appointment as independent director (Jakarta Stock Exchange 2004).

[6] Refer to Decree of Director of Jakarta Stock Exchange No. Kep-305/BEJ/07-2004 dated 19 July 2004 concerning Regulation No. I-A about Registration of Stocks and Non-Stock Equity Securities Issued by Listed Firms

The *Indonesia's Code of GCG* (National Committee on Governance 2006) also provides implementation guidelines for the basic principles concerning the director composition, capability and integrity of BOD membership and BOD functions. The number of BOD members should be adjusted with the firm's complexity with regard to the effectiveness of decision making. BOD members should have capabilities and integrity to perform their functions and should understand and carry out the GCG guidelines. The five main duties of the BOD related to firm management functions are to carry out: 1) management; 2) risk management; 3) internal control; 4) communication; and 5) social responsibilities (National Committee on Governance 2006).

2.3.5 Role of the Audit Committee

According to Law 40/2007 Limited Liability Companies, the BOC could establish committees in carrying out the supervisory duties. These committees should be responsible to the BOC and must have at least one commissioner as their member. Law 40/2007 Limited Liability Companies does not state the types of committees to establish in the BOC. However, among these committees is the audit committee. According to CMFISA[7], an audit committee is defined as a committee that is established by and is responsible to the BOC in supporting the BOC to carry out its duties and functions. CMFISA requires a publicly listed firm to have an audit committee. The IDX, through the Director Decree 305/2004, also requires a listed firm to have an audit committee that should independently perform its duties and functions.

The composition of the audit committee is regulated by the CMFISA in Regulation 643/2012. An audit committee should have at least three members who are independent commissioners and other parties from outside the listed firm. The audit committee is chaired by an independent commissioner. There are 11 criteria to be fulfilled for an individual to be appointed as a member of audit committee. The three criteria for audit committee members that are related to this study are: 1) high integrity, capability, knowledge, experience in accordance with their field of work, and communicate well; 2) understands financial statements, the firm's business, especially related with service or listed firm business activities, audit process, risk management, regulations in the capital market, and other regulations and legislations; and 3) have at least one member with an accounting or finance education background (Capital Market and Financial Institution Supervisory Agency 2012).

The tasks and responsibilities of an audit committee related to financial reporting include: 1) reviewing the financial information to be disclosed by the firm or the publicly listed firm concerned to the public and authorities, including financial statements, projections and other

[7] Referred to Decree of the Chairman of Capital Market and Financial Institution Supervisory Agency Number Kep-29/PM/ 2004 revised with Kep-643/BL/2012 concerning Audit Committee Establishment and Audit Committee Work Guideline

reports related to the financial information; 2) providing recommendations to the BOC concerning the appointment of external auditor based on independence, scope of the assignments, and fees (Capital Market and Financial Institution Supervisory Agency 2012); 3) overseeing the external audit coverage; 4) reviewing the accounting policies and policy decisions; 5) examining the financial statements (Forum for Corporate Governance in Indonesia -); 6) providing independent opinion in the case of disagreement between management and the external auditor on the services provided; 7) reviewing any complaint related to accounting processes and financial reporting of the firm or the publicly listed firm concerned; and 8) maintaining the confidentiality of documents, data and information of the firm or the publicly listed firm concerned (Capital Market and Financial Institution Supervisory Agency 2012). In addition, the audit committee also has tasks related to the corporate governance and internal control of the firm (Capital Market and Financial Institution Supervisory Agency 2012). When the firm or publicly listed firm concerned does not have risk monitoring functions in the BOC, the audit committee also has the task of reviewing the implementation of risk management activities by the BOD. In addition, IFSA in 2015 regulates the tasks and responsibilities of audit committee by issuing Regulation Number 55/POJK/04/2015 dated 23 December 2015 concerning the Development and Working Guidance of Audit Committee. Particularly, Article 10 point h states that audit committee also analyses and proposes suggestions to the BOC concerning the existence of potential conflicts of interest of the listed firm (Indonesian Financial Service Authority 2015).

2.3.6 Role of Other Committees Established in the BOC

According to Law 40/2007 Limited Liability Companies, the BOC could establish committees to carry out the supervisory duties. FCGI states two committees other than audit committee in the BOC, including: 1) compensation/remuneration committee and 2) nominating/governance committee. Whereas National Committee on Governance (2006) stipulated three committees other than the audit committee in the BOC, namely: 1) nomination and remuneration committee; 2) risk policy committee; and 3) corporate governance policy committee.

The nomination and remuneration committee has tasks to support the BOC in establishing criteria to select BOC and BOD candidates, including their remuneration. They support the BOC to prepare BOC and BOD candidates and propose the amount of their remuneration. The BOC may nominate those candidates and their remuneration to obtain GMS approval in accordance with the firm's AoA. For publicly listed firms, state-owned firms, regional-owned firms, firms that collect and manage public fund, firms whose products and services are publicly used and firms that influence the environmental sustainability, the nomination and remuneration committee is chaired by the independent commissioner and membership may consist of commissioners or a professional from outside the firm. The existence of the nomination and remuneration committee, including their working procedures, should be reported in the GMS (National Committee on Governance 2006).

Risk policy committee has tasks to support the BOC in reviewing the risk management system, which is arranged by the BOD, including the risk tolerance that could be taken by the firm. Members of risk policy committee consist of the BOC member and they can choose a professional from outside the firm if needed (National Committee on Governance 2006).

The corporate governance policy committee has tasks to support the BOC in comprehensively reviewing the GCG policy, which is prepared by the BOD, including its consistent implementation, business ethics and corporate social responsibility (CSR). Membership of the corporate governance policy committee consists of BOC members and they can choose a professional from outside the firm if needed. The corporate governance policy committee may be combined with the nomination and remuneration committee (National Committee on Governance 2006).

2.4 Regulatory Framework of RPTs in Indonesia

RPTs undertaken by Indonesian listed firms are governed by two institutions, namely the Institute of Indonesia Chartered Accountant, by the authority derived from ISFAS 7 and ISFAS 7 (Revised 2010), and CMFISA (currently IFSA). ISFAS 7 was issued in 1994 and effective on 1 January 1995. This standard was applied to all firms that operated in Indonesia. It was revised in 2010, with the revision effectively implemented on 1 January 2011. ISFAS 7 (Revised 2010) adopts International Accounting Standard (IAS) 24 addressing Related Party Disclosure to make the Indonesia financial accounting standards consistent with IAS 24. ISFAS 7 (Revised 2010) recognises the possibility that reporting firms use RPTs to influence figures in the balance sheet and income statements. Hence, ISFAS 7 (Revised 2010) requires sufficient disclosure related to RPTs, including identifying and defining: 1) the relationship and transactions with related parties; 2) the balance, including commitments, between reporting entity and its related parties; and 3) required disclosure conditions in relation to 1) and 2). CMFISA (currently IFSA) regulates RPTs that are conducted by Indonesian firms listed in the Indonesia Stock Exchange.

2.4.1 ISFAS 7

According to paragraph 3 of ISFAS 7, a party is considered related if one party has authority to control another party or has a significant influence over other party in operational and financial decision making. RPTs are defined as transferring resources or liabilities between related parties without considering the price. Control is defined as direct ownership through more than 50% ownership votes in subsidiaries, or substantial interest votes or capacity to direct financial and operating policies of an entity based on articles or agreements. Henderson, Peirson, and Herbohn (2011) define control as the capacity of an entity to govern the financial and operating policies of

another entity so as to obtain benefit from its activities. ISFAS 7 defines significant influence as participates in financial and operation policy decision making but do not have control over those policies. This significant influence may be done in many ways such as a representative in the BOC or participate in the process of policy arrangement, material transactions with the entity, the exchange of managerial employees or technical information dependence. Significant influence might be obtained from joint ownership, articles or agreements (Institute of Indonesia Chartered Accountants 2004).

ISFAS 7 has described several parties that are considered as related parties. They are: 1) firms that through one or more intermediaries, control, or are controlled by, or are under joint or common control[8], with the reporting firm (hence this includes holding firms, subsidiaries and fellow subsidiaries); 2) associated firms; 3) individual owners, directly or indirectly, with an interest in the voting power of the reporting firm that gives them significant influence[9] over the firm, and close families of such individuals; 4) key management persons, that is those persons having authority and responsibility for planning, directing and controlling the reporting firm activities including the commissioners, directors, managers and close families of such persons; and 5) firms where the substantial interest in the voting rights are directly or indirectly owned by a person described in 3) or 4), or over which such a person is able to exercise significant influence, including firm owned by the board of commissioner members, directors or majority shareholders of the reporting firm and firm that has the same key management persons with the reporting firm (Institute of Indonesia Chartered Accountants 2004).

According to ISFAS 7, RPTs are normal in commerce and business. For example, an entity might be conducting its activities separately through subsidiaries or affiliated firms, or may acquire interest in another firm for investment or business purposes to control or gain significant influence in financial and operational decision making of the investee firm. A relationship with an entity may influence the financial position and income statement of reporting firm. Related parties can be involved in transactions that cannot be undertaken with third parties. Transaction between an entity and its related parties also can be performed in price, which is different compared to arm's length price (Institute of Indonesia Chartered Accountants 2004).

ISFAS 7 provides examples of RPTs that may need to be disclosed, such as purchases or sales of goods, purchases or sales of property or other assets, deliveries or receipt of services, transfers of research and development, financing (including providing loan and capital investment in cash or

[8] Common control is the situation when a parent entity controls two or more subsidiaries, the fellow subsidiaries are referred to as being under common control (Henderson, Peirson, Herbohn, 2011).

[9] Significant influence is the power to participate in the entity financial and operating policy decisions without having control over those policies (Henderson, Peirson, Herbohn, 2011).

noncash), guarantees and collateral, and management agreements. The reporting firm requires disclosure of the existence of the relationship if there is a control, for RPTs, so that the user of the financial statement can notice the influence of RPTs. The reporting firm needs to disclose the substance of the RPTs and elements of transactions to understand the financial statement, including transaction volume (amount and percentage), amount and percentage of outstanding items, and price policy (Institute of Indonesia Chartered Accountants 2004).

2.4.2 ISFAS 7 (Revised 2010)

ISFAS 7 (Revised 2010) refines the definitions of related party, RPTs, control, significant influence, and key management person. The definition of related party is more clearly stated in the ISFAS 7 (Revised 2010) compared to the previous definition. ISFAS 7 (Revised 2010) redefines the related party as person or entity that related to the reporting firm, while the RPTs are redefined by including services transfer in addition to resources or liabilities transfer between related parties. Control is defined as a power to regulate financial and operational policy of an entity to obtain benefits of that entity's activities, while significant influence is a power to participate in financial and operation policies decision making but without having control over those policies. Significant influence can be obtained from share ownership, articles, or agreements. Key management person is defined as a person who has authority and responsibility to plan, direct, and control the entity activities, directly or indirectly, including directors and commissioners of the entity (Institute of Indonesia Chartered Accountants 2010).

In ISFAS 7 (Revised 2010), a person refers to an individual or close family who has a relationship with the reporting firm if he or she (i) has control or joint control over the reporting firm; (ii) has significant influence over the reporting firm; or (iii) is a key management person of the reporting firm or the parent of the reporting firm. An entity has relation with the reporting firm if: 1) the entity and the reporting firm are members of a business group (it means that parent firm, subsidiaries, and further subsidiaries are related with the each other); 2) the entity is an associate or joint venture of the other firm that is in the same business group with the reporting firm; 3) the entity and the reporting firm are joint ventures owned by the same third party; 4) the entity is a joint venture of third party and the reporting firm is an associate firm of such third party or otherwise, the entity is an associate firm of third party and the reporting firm is a joint venture owned by such third party; 5) the entity carries out a post-employment benefit plan for the benefit of the reporting firm employee or of any entity related to reporting firm employee. If the reporting firm organises the post-employment benefit plan, the sponsor firm is classified as related to reporting firm where; 6) the entity is controlled or jointly controlled by an individual or close family related to the reporting firm; and 7) the entity, the entity's key person, or the entity's parent is significantly influenced by the individual who has control or joint control over the reporting firm. Thus, an entity is classified as a

related entity with the reporting firm if they are shareholders, or members of the same business group, or have the same owner, or are carrying out the post-employment benefits of the reporting firm's employees, or the firm is controlled or influenced by the related person of the reporting firm (Institute of Indonesia Chartered Accountants 2010).

Referring to the definition of related party in ISFAS 7 (Revised 2010), this study addresses RPTs based on the status of related party: RPTs person and RPTs entity. This study also sub-categorises and examines the RPTs entity based on the nature of the relationship into: (i) RPTs shareholders; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates.

The ISFAS 7 (Revised 2010) also adds several items including definitions and disclosures that are not available in the ISFAS 7. The ISFAS 7 (Revised 2010) adds definitions of joint control, close family of an individual, government entity that is related party, government and compensation. The ISFAS 7 (Revised 2010) requires the reporting firm to disclose the compensation of key management persons, separate disclosure for each category of related party, and the entity related with government. The substances of RPTs and elements of transaction that need to disclosed are: 1) the nature of relationship between the reporting firm and related parties; and 2) information about the transactions and balance, including commitments. The information disclosed includes at least: amount of transactions; amount of balance, including commitments, requirements and provisions, collateral, nature of compensation, which is specified for settlement, detail of guarantee that is received or provided; provision for impairment related to the balance of RPTs; and expense that is recognised during the period related to provision for impairment or omission of receivable from related parties.

ISFAS 7 (Revised 2010) adds more examples of RPTs that need to be disclosed such as rent, transfer under license agreement, commitment to do something if a special event occurs or does not occur in the future, and completion of liability on behalf an entity or related party. Besides total size of RPTs, this study follows the examples of RPTs in ISFAS 7 and ISFAS 7 (Revised 2010) and examines four types of RPTs based on the nature of the transaction that are commonly undertaken by the firms, namely: RPTs Sales, RPTs Purchases, RPTs Lending and RPTs Liabilities.

2.4.3 Regulation of CMFISA (currently IFSA)

CMFISA (currently IFSA) also regulates the RPTs for Indonesia listed firms in the annex of the Chief of Capital Market Supervisory Agency and Financial Institution Decree number: Kep-84/PM/1996 dated 24 January 1996 concerning Conflict of Interest in Certain Transaction, which has been revised several times as follows: the Chief of Capital Market Supervisory Agency and

Financial Institution Decree number: Kep-12/PM/1997 dated 30 April 1997 then number: Kep-32/PM/2000 dated 22 August 2000, number: Kep-521/BL/2008 dated 12 December 2008 then number: Kep-412/BL/2009 dated 25 November 2009 concerning Affiliated Transactions and Conflict of Interest in Certain Transaction (regulation number 412/2009). According to regulation number 412/2009, affiliated transaction is defined as a transaction performed by the firm or controlled by the firm and its affiliates or the affiliate of director, commissioner, or main shareholder. The affiliated transactions are more clearly defined in the new regulation than in the previous regulation. The information for affiliated transactions that need to be disclosed in both regulations are similar, however regulation 412/2009 states additional requirements, including that the summary of appraisal report should provide opinion about the fairness of transaction and that the time period between appraisal date and transaction does not exceed six months.

In addition, some transactions that are excluded from affiliated transactions in regulation 521/2008 are included as affiliated transactions according to regulation 412/2009 and need to be reported to the CMFISA at least at the end of the second workday after the transactions occur. These transactions include: 1) using any facility provided by the firm or controlled firm for commissioners, directors, and or main shareholders who also act as employees and that facility is directly related with their responsibility to the firm and complies with the firm policies, and have been approved in a shareholders meeting; and 2) transactions between the firm and its employees, directors, or commissioners and employees, directors, or commissioners of the controlled firm with the same requirements as long as that transaction has been approved by a shareholders meeting, including benefits provided by the firm for all employees, directors, or commissioners with the same requirements, in accordance with firm policies.

The regulation 412/2009 also adds other criteria for affiliated transactions that need to be disclosed to the CMFISA, including: 1) transactions with an amount that does not exceed 0.5% of firm paid-up capital and do not exceed IDR 5 billion (AUD 496,812[10]); 2) transactions that are performed by the firm due to legislation or court decisions; 3) transactions between the firm and its controlled firm where at least 99% of its shares are owned by the firm or between controlled firm and other controlled firm where at least 99% of their shares are owned by the firm; and/or 4) transactions between a firm and its controlled firm where its shares or capital are not fully owned by the firm and none of its shares is owned by the commissioners, directors, main shareholder of the firm, or their affiliates, and the financial statement of controlled firm is consolidated with the firm.

The newer regulation also describes clearly the transactions that are excluded from the transactions that need to be reported to the CMFISA. Regulation 412/2009 includes transactions that are excluded from the affiliated transaction category, such as: 1) a continuing transaction that

[10] exchange rate IDR 10,064.16 for AUD 1 at 31st December 2015

has been performed before the initial public offering of the firm or before the registration statement as a public company is delivered, with the specific requirements: transactions have been fully disclosed in the prospectus of initial public offering or in the information transparence of the registration statement; and there are no changes in the terms and conditions of the transactions that cause the firm to experience a loss; 2) a continuing transaction that is performed after the initial public offering or after the effective date of registration statement as a publicly listed firm, with the requirements: the initial transaction as a base of continuing transaction have been fulfilled by this regulation; and there are no changes in the terms and conditions of the transactions that cause the firm to experience a loss; 3) a transaction that is the main activity of the firm or its controlled firm; and 4) a transaction that supports the main activity of the firm or its controlled firm.

This study will adopt ISFAS 7 (Revised 2010) for the definition of related party and RPTs, and the types of RPTs.

2.5 Summary of the Chapter

The Indonesian capital market has experienced growth from year to year, especially after economic deregulation in 1988, which has resulted in more publicly listed firms and more transactions in both the value amount and number of transactions. This development has been followed by the improvement and strengthening of corporate governance regulations and practices in Indonesia. The Indonesian corporate governance framework is being continuously improved to provide better corporate governance practices in Indonesian publicly listed firms and better investor protection. RPTs, which are commonly performed by firms, including Indonesian publicly listed firms, also get attention through the improvement of the regulations and financial accounting standard to promote better corporate governance. RPTs undertaken by firms in Indonesia are regulated by ISFAS 7 (Revised 2010). For RPTs undertaken by publicly listed firms on the Indonesia Stock Exchange, there is another regulation from CMFISA (currently IFSA). ISFAS 7 (Revised 2010) redefines related parties as persons and/or entities that have relationship with the reporting firm, while RPTs are redefined as any transactions including a transferring of resources, services, or liabilities between a reporting firm and its related parties. The regulations for capital market, corporate governance and RPTs in Indonesia are arranged to provide better corporate governance and better investor protection, which at the end could result in attracting new investors and maintaining existing investors.

The literature review and development of the hypotheses are discussed in the following chapter.

CHAPTER 3
LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

3.1 Introduction

This chapter presents some of the theoretical views to explain the motivation for a firm engaging in RPTs and empirical evidence on the relationship of RPTs, corporate governance characteristics and firm performance. This chapter also discusses the development of hypotheses in this study. The theoretical views discussed in this chapter include contracting theory, stakeholder theory, agency theory and management theory to describe a firm involved in RPTs, corporate governance and their relationships. The empirical evidence includes evidence about the relationship between RPTs and firm performance, between RPTs and firm income tax expense, between corporate governance and firm performance, and between RPTs, corporate governance and firm performance. This chapter also develops the conceptual framework for the relationship of RPTs and corporate governance characteristics to firm performance or firm income tax expense.

3.2 Theoretical Background

Contracting theory and stakeholder theory help to inform the involvement of firms in RPTs, whereas agency theory and management theory help to inform the possible influence of corporate governance related to RPTs.

3.2.1 Contracting Theory

A firm's activities through RPTs can be explained by contracting theory. Godfrey et al. (2010) explain that a firm, as a legal nexus, performs its business activities through contractual relationship with suppliers and consumers of the firm's products. Contracts are performed by the firm between the suppliers of production factors (land, labor and capital) and consumers of the output rather than all individual suppliers contracting with their consumers. In addition, the firm has a role as a central organisation that links between a consumer and numerous suppliers through the contractual relationship. Examples of contractual relationship between a consumer or suppliers and the firm are as follows: contracts that document the terms and conditions of a manager who is hired by shareholders; contracts that document the terms and conditions of financial resources provided by the lenders; contracts of employment for factory or other workers; contracts for the

supply of goods; and contracts for the sale and delivery of goods and services (Godfrey et al. 2010).

Hence, these contractual relationships are carried out between firms and other parties, including third parties and/or related parties. The parties that will be involved in these contractual relationships depend on the firm's decisions. RPTs are frequently undertaken between firms and their parent, subsidiaries, associate firms, joint ventures, and other related firms that are owned by the same shareholders.

3.2.2 Stakeholder Theory

A firm engaged in RPTs needs to consider its stakeholders. Freeman (1984) defines the stakeholder concept from a strategic management view as any group or individual who can affect or is affected by the firm. In addition to shareholders, employees, suppliers, customers, lenders and society, from the strategic management view, Freeman (1984) has included the financial community, activist groups, customer advocate groups, unions, trade associations, competitors, political groups and government as the firm's stakeholders. There may also be variations due to the particular industries, firms, and geographies. The key success factors of the firm are the nature of the firm behaviour and the nature of the goods and services that are exchanged with its stakeholders. Examples of transaction between the firm and its stakeholders are as follows: selling goods or delivering services to customers, purchasing goods or receiving services from suppliers, paying dividends to its stockholders, negotiating a new contract with the union, and paying income taxes to the government (Freeman 1984).

Freeman (1994) describes the stake of several stakeholders of the firm. The stake of the owners is financial stake in the firm through stocks, bonds or loans, where they are expecting financial returns on their investments through dividends or interest payments. The stake of the owners will vary depending on the type and preference of the owners and the type of firm. The firm influences the return to those owners through the dividend or interest payments, in which influences their living. The stake of employees is their job, skills and living, and their security. Employees expect their wages, benefits and meaningful work in return. The firm affects the living of those employees through wages and benefits payments. In return, the firm expects the employee to be following the management's instruction, communicating positively about the firm, and becoming a responsible citizen in the area where the firm operates (Freeman 1994).

Furthermore, the stake of the suppliers is their raw materials, which will determine the quality and price of the firm's products. The firm influences the suppliers due to its role as the suppliers' customer, whose role is important for the survival and success of the suppliers. The stake of

the customer is his or her resources for the firm's products as the firm revenue and the benefits of the products that they have received are the return. The firm affects the customers' living through its products. The local community provides the right building facilities and services to the firm and it obtains the tax and social and economic contribution of the firm. The firm is also expected to be a good citizen through not exposing the community to pollution or toxic waste (Freeman 1994).

Government, as one of the firm's stakeholders, also has an important stake to the firm. The stake of the government is the firm's income tax expense as one source of government revenues. The government will use the income tax revenues for its spending reflected in its budget. The firm affects government revenues through its income tax expense. In return, government provides infrastructures and regulations for the public, including the firm.

RPTs could become an issue for some firm stakeholders such as employees, shareholders, and government. RPTs could generate an issue for the employees, especially for high level management in the firm, in terms of compensation and reward. Employees or management could obtain reward in the form of bonuses if they achieve certain target sales. RPTs will be an issue for shareholders, especially minority shareholders, when the controlling shareholder diverts the firm's resources through RPTs. RPTs might become an issue for the government when the existence of RPTs causes the government to experience a loss of income tax revenues.

According to Clarkson (1995), individuals or groups that have or claim ownership, rights or interests in a firm and its activities, past, present or future are considered as the firm's stakeholders. The claimed rights appear due to the legal, moral, individual or collective transactions with, or actions taken by, the firm. The same group (such as employees, shareholders and customers) is formed from stakeholders that have similar interests, claims, or rights. In addition, Clarkson (1995) classifies stakeholders based on the interaction with the firm into two groups: 1) primary stakeholder groups; and 2) secondary stakeholder groups. Primary stakeholder groups are defined as stakeholders who without their continuing participation will influence the going concern of the firm and where the firm has a formal or official contractual relationship with those stakeholders (such as customers, suppliers, employees, shareholders and investors) and together with the public stakeholder group (such as government authorities and local communities), which is defined as those stakeholders that provide infrastructure and markets, whose regulation must be followed and to which taxes should be paid. The secondary stakeholder groups are defined as stakeholders who influence or affect, or are influenced or affected by the firm but they are not involved in transaction with the firm and do not influence the firm's going concern, for example the media and groups with special interest (Clarkson 1995).

The characteristics, behaviour and performance of a firm that is involved in RPTs also can be explained with stakeholder theory. According to Donaldson and Preston (1995), stakeholder theory has three aspects that are supporting each other: descriptive, instrumental and normative. In the descriptive aspect, stakeholder theory is used to provide description and explanation of the characteristics and behaviours of the firm. This aspect describes the firm's affairs and stakeholders over the time. In the instrumental aspect, stakeholder theory, with the availability of descriptive data, is used in recognising the availability of relationship between stakeholder management and achievement of the traditional firm's goals such as growth and profitability. In the normative aspect, stakeholder theory is used in understanding the firm function, which includes the identification of moral or philosophical guidelines of the firm's operation and management. All these aspects are laid within each other with the descriptive aspect as an external side, the instrumental aspect as a middle side, and the normative aspect as an internal side or central (Donaldson & Preston 1995).

According to Donaldson and Preston (1995), the selection of activities and direction of resources to generate legitimate stakeholders benefits are the responsibility of managers and management functions. Legitimate stakeholders can be recognised by: 1) the existence of a contract; 2) the presence of direct input supplier; and 3) the actual or potential harms and benefits that the firm experiences or anticipates experiencing as a consequence of the firm's decision to take an action or not. The firm's management has an important role in the firm, including maintaining the health of the firm and at the same time maintaining the stakeholder relationship in balance (Freeman 1994). Thus, performing RPTs, the extent of RPTs, and maintaining the stakeholder relationship due the existence of RPTs are the responsibility of managers and management functions.

Mitchel, Agle and Wood (1997) propose the identification of the stakeholders based on the three aspects of a relationship, namely power, legitimacy and urgency. When a party undertakes a relationship, it has power that will determine gaining access to coercive, utilitarian or normative means and to carry out the firm's desires in the relationship. Mitchel, Agle and Wood (1997) follow the definition of legitimacy by Suchman (1995), where legitimacy is defined as a perception or assumption that is generalised to decide that the actions of an entity are desired or in line with the social systems of norms, values, beliefs and definitions (Suchman 1995). Mitchel, Agle and Wood (1997) argue that legitimacy refers to a desirable social good that is larger and more shared than self-perception. Mitchel, Agle and Wood (1997) define urgency as the level or degree when stakeholders need an immediate response. When the types of stakeholders of the firm have been known, a manager needs to do stakeholder salience by taking notice of those stakeholders differently to achieve a specific goal and managing competing stakeholder claims based on priority (Mitchel, Agle & Wood 1997).

Fassin (2009) introduces a refined model of stakeholders based on Freeman's stakeholder model. He classifies the stakeholders of the firm into three categories: 1) stakeholders, 2) stake-watchers, and 3) stake-keepers. Stakeholders consist of the internal constituents and those who have a real stake in the firm. These stakeholders own legitimate claim, power and influence to the firm reciprocally, such as shareholders, employees, customers, business, civil society, and special interest groups, and the firm has responsibility to them. Stake-watchers are indirect stakeholders or pressure groups that have a derivative claim and significant power and influence on the firm, but the firm cannot influence them. These groups have a role to look after or watch the real stakeholders, for example: unions protecting the stake of employees, consumer association caring for the stake of consumer, and activists guarding the stake of the community and environment. The stake-keepers have mixed claim to the firm and the firm has no responsibility to them, but regulators can influence or control and indirectly enforce responsibilities. Examples of stake-keepers are: government (including courts and regulatory agencies) and the press and media. These groups have a role to maintain the real stakeholders. Fassin's stakeholder model provides enriched conceptualisation of the firm and its environment, its parts and their relationship. That model also envisions the categories of stakeholders by making clear the difference between real stakeholders, pressure groups (called stake-watchers) and regulators (called stake-keepers). In addition, this refined model enables strategic analysis of stakeholder management (Fassin 2009).

Miles (2015) introduces a multi-dimensional classification of stakeholder theory that includes four stakeholder hyponyms, namely: influencer, claimants, recipients and collaborators. A stakeholder is classified as influencer when an individual or group are capable of influencing the firm's operations and has an active strategy to do so. An individual or group is considered as claimants when he/she or it has a claim on the firm and a related active strategy in pursuing the claim but a lack of power in confirming of the claim by management. According to Miles (2015), an individual or group is included as a collaborator stakeholder when he/she or it co-operates with the firm but lacks the active interest to influence the firm, while an individual or group with a passive response of the impact of the firm's activities is considered as a recipient stakeholder. Miles (2015) differentiates those four stakeholders types based on the impact of power, interest, and influence: active influence (influencer), passive influence (collaborator), potential to influence (claimants) and no influence (recipients).

Since the selection of activities and the direction of resources to generate legitimate stakeholders' benefits and maintaining the stakeholder relationship are the responsibility of managers and the management functions (Donaldson & Preston 1995; Freeman 1994), a manager needs to consider the firm's stakeholders when undertaking RPTs. Managers can identify the firm's stakeholders that are influenced by the existence and extent of RPTs based on the stakeholder identification suggested by Freeman (1984), Freeman (1994), Donaldson and Preston (1995), Clarkson (1995),

Mitchel, Agle and Wood (1997), Fassin (2009), and/or Miles (2015). Using stakeholder salience based on the uniqueness and priorities, managers should give attention to the firm's identified stakeholder and to competing stakeholders' claims due to the RPTs undertaken by the firm (Mitchel, Agle & Wood 1997).

Managers of the firm are also responsible for ensuring distribution of the value created by the firm and to ensuring all stakeholders have input into the managerial decisions to determine the firm in creating that value (Hasnas 2013). In addition, managing the firm's stakeholders with varied interests can be carried out using two approaches, namely the fairness approach and the arms-length approach (Bridoux & Stoelhorst 2014). The fairness approach treats stakeholders based on fairness considerations, while the arms-length approach treats stakeholders based on bargaining power. Bridoux and Stoelhorst (2014) argue that the fairness approach is effective to attract, maintain and motivate reciprocal stakeholders to create value, whereas the arms-length approach is effective to motivate self-regarding stakeholders and to attract and maintain self-regarding stakeholders with high bargaining power.

3.2.3 Agency Theory

A firm that engages in RPTs may experience problems of agency. A firm is viewed as a "black box" whose main goal is to maximise profit or value. A firm, with managers and shareholders, also experiences the agency relationship, which is defined by Jensen and Meckling (1976) as a contract relationship between an individual or more that acts as a principal and other individual that acts as an agent to provide some services on behalf of the principal's, which includes delegating the authorities to make decisions from the principal to the agent. The principal wants the agent to act in the best interests of the principal. Incentives for the agent and monitoring cost by the principal are provided to reduce the activities of the agent that can harm the principal (Jensen & Meckling 1976).

According to Jensen and Meckling (1976), an agency relationship will create agency cost that is defined as the sum of: 1) the principal's monitoring expenditures; 2) the agent's bonding expenditures; and 3) the residual loss. Monitoring expenditures are the total cost that is spent by the principal to monitor the behaviour of the agent, for example: audit cost and management compensation plan. Bonding expenditures are the expenditures that are spent to guarantee that the agent behaves in the principal's interest and to guarantee that the agent will compensate the principal if their behaviours are contrary with the principal's interest, for example: the cost by managers in bonding activities to provide accounting reports. Residual loss is defined as the dollar equivalent of principal's welfare reduction. The example of agency relationship is the relationship between the shareholders and the managers of a firm (Jensen & Meckling 1976).

When a firm undertakes RPTs, there is a possibility that the manager of the firm is involved in RPTs for personal benefits (such as to obtain a bonus) rather than for the interest of shareholders. It is also possible that the firm undertakes RPTs for particular reasons such as propping, earnings management or tunneling, which can result in eventual losses to the firm's stakeholders. Eisenhardt (1989) explains two problems in the agency relationship: agency problem and risk sharing problem. Agency problem occurs when conflict of interest between the principal and the agent exists and the principal enables to confirm that the agent has acted appropriately because it is expensive and difficult for the principal to do. Risk sharing problem occurs when there are different risk attitudes between the principal and the agent. The principal and the agent may choose different decision as the result of their different risk preferences (Eisenhardt 1989).

Monitoring is implemented to ensure that the agent is working in the interest of the shareholders, including monitoring the RPTs. In the Indonesian corporate governance context, the monitoring function of the firm is carried out by the board of commissioners (BOC). The BOC supervises the BOD, which serves as the agent to manage the firm. To ensure the monitoring function of the BOC, an independent commissioner is appointed as a member of the BOC. The BOC can establish committees to support its monitoring function. In addition, the BOC needs to implement several principles suggested by Governance Policy National Committee (2006) in order to perform effectively. Firstly, the BOC should be composed in such a way as to enable it to make decisions effectively, right and quick, and to take actions independently. Secondly, BOC members are required to be professional by having the necessary integrity and ability to perform their duties, including ensuring that the BOC is concerned with the interest of the firm's stakeholders. Thirdly, supervisory and advisory functions of the BOC include preventive and corrective actions for temporary dismissal.

3.2.4 Management Theory

The firm needs to implement corporate governance throughout its activities, including in the activities related to RPTs. Bartol et al. (2011) define management as the process to achieve the objectives of the firm through the functions of planning, organising, leading and controlling. Planning is the function of management and includes setting objectives, developing the plans and choosing actions and strategies to achieve the objectives of the firm. According to Samson and Daft (2012), planning also includes deciding on the tasks and resources that will be needed to achieve the objectives of the firm. Organising is the function of management that emphases the distribution and arrangement of the firm's resources to obtain the successful implementation of the plan. Organising facilitates managers in determining tasks, combining tasks into specific jobs, grouping jobs into units that are reflected in organisation's structure, and distributing tasks to the staff. Leading is the function of management that influences others to engage in work behaviours

to achieve the objectives of the firm, including communicating with others, providing the outline of an achievable vision, giving direction, motivating and inspiring members of the firm to dedicate the necessary effort, and encouraging change and innovation (Bartol et al. 2011). Controlling is the function of management that regulates the firm's activities to ensure that the firm performance conforms to its standards and objectives (Bartol et al. 2011). Controlling is defined as monitoring the firm's progress towards its goals. Controlling contributes to the successful management by ensuring the effectiveness and efficiency and obtaining data to support decision making and provide feedback to the firm's stakeholders. Controlling function has relationship with the other management functions, such as planning, organising and leading (Davidson, P et al. 2009).

Controlling, as the final process in management, is also essential to minimise the agency problem related to the existence of RPTs. Managers also need to monitor the RPTs and communicate them to others, including to the firm's stakeholders. This role is in accordance with the informational roles of a manager explained by Mintzberg (1973). A manager's informational roles rise from the interpersonal roles of the manager where manager serves as monitor. This means that the manager must actively look for information that may be of value, is a disseminator who transfers relevant information to persons in the workplace, and is a spokesperson who carries information and communicates it formally to others. The manager can also influence the extent of RPTs through the decisions they make. In this decisional role, the manager serves as a resource allocator who decides how to allocate the resources and whom to work with (Mintzberg 1973).

In the Indonesian corporate governance context, the management function of the firm is carried out by the board of directors (BOD). In relation to the management function, the BOD arranges the vision, missions, values, and long-term and short-term programs of the firm for the considerations, discussions and approval of the BOC or GMS in accordance with the AoA. The BOD needs to control the firm's resources effectively and efficiently and must also pay attention to the interest of the firm's stakeholders. According Law 40/2007 Limited Liability Companies, the BOD is required to manage the administration related to management of the firm, including maintaining a register of shareholders, minutes of shareholder general meetings and BOD meetings, annual reports, and financial documents. Other than management, duties of the BOD include risk management, internal control, communication and social responsibilities (The Republic of Indonesia 2007). Thus, the BOD has responsibility to control RPTs, and to communicate and disclose the RPTs to the firm's stakeholders.

The BOC is responsible for supervising and advising the BOD in accordance with the interest, purpose and objectives of the firm. The functions of the BOC include reviewing and monitoring the BOD's functions. According to National Committee on Governance (2006), duties of the BOC include to manage and monitor any potential conflict of interest among management, board

members and shareholders, such as misuse of the firm's resources through RPTs and to monitor the effectiveness of corporate governance practices.

3.3 Reasons for RPTs

A firm undertakes RPTs for many reasons. The three main reasons for RPTs are: 1) propping up, either to manage earnings or to increase firm performance; 2) tunneling, to divert or relocate the firm resources or assets; and 3) for purely economic reasons.

3.3.1 Propping Up or Earnings Management

Instead of undertaking RPTs for economic reasons, there is evidence to suggest that some firms use RPTs to prop up firm performance. Several types of RPTs can facilitate propping up firm performance or earnings management. Friedman, Johnson, and Mitton (2003) examine the role of debt on propping in 2,144 Asian firms that faced a downturn in stock price in the macroeconomic shock period in 1997 and 1998. They argue that debt provides a direct impact to enhance the potential of propping and makes it look like the financing the firm is supported by the outside investor. They also find that debt ratio has significant positive relationship with pyramidal ownership structure. Debt can become a way to prop up the firm. Debt serves as a commitment of the shareholders to support a firm when facing a financial crisis (Friedman, Johnson & Mitton 2003).

In addition, Jian and Wong (2003) find evidence that RPTs sales influence earnings management for 131 Chinese listed firms for the period 1997-2000. RPTs sales are a tool for group-controlled listed firms to manage their earnings. RPTs sales are the largest in amount and most frequent type of RPTs. A firm can easily increase its total sales through its RPTs sales. When RPTs through related sales are performed, earnings from operating can be managed. Managers can allocate profit/losses on certain firms. A firm can increase its sales by selling more to its related party. With fixed profit margin, the higher the total sales, the higher the earnings. Similarly, Yeh, Shu, and Su (2012) find that RPTs sales have positive association with the condition that firms will issue new shares in the future or when the firms face decreasing earnings for Taiwan listed firms in the years 1996-2008. According to Jian and Wong (2010), cash-based RPTs sales are more effective to prop up the firm compared to accrual-based RPTs sales. RPTs sales and discretional accruals are substituted for earnings management. The trend in using discretional accruals to meet earning targets is lower in firms with RPTs sales compared to firms without RPTs sales. In contrast, the trend in using RPTs sales to increase earnings is stronger in firms without RPTs sales or when firms are involved in RPTs sales. Propping through cash-based RPTs sales is related to the return of cash to the controlling shareholders by RPTs lending (Jian & Wong 2010).

RPTs assets sales also can facilitate propping when the firm's controlling shareholders buy the firm's assets at a higher price, whereas RPTs assets purchases serve as propping tools when the firm buys the related party's assets at a lower price (Cheung, Qi, et al. 2009). In addition, RPTs assets displacement and RPTs equity transfer also can act as a way to prop up when the controlling shareholder exchange good assets for bad assets in return. Through such RPTs activities, the listed firm can earn profit to improve firm performance (Peng, Wei & Yang 2011).

Many studies have shown that firms are involved in RPTs to prop up the firm or to enhance performance for different purposes, such as: to fulfill government requirements for offering new equity (Jian & Wong 2003; Jian & Wong 2010; Liu, Q & Lu 2007; Yeh, Shu & Su 2012); to avoid delisting (Jian & Wong 2003; Jian & Wong 2010; Peng, Wei & Yang 2011; Williams & Taylor 2013); to obtain future financing or repay the RPTs loans (Gordon & Henry 2005); to decrease the negative effect of industry shock on firm's earnings (Jian & Wong 2010); and to increase earnings (Yeh, Shu & Su 2012).

Firms that are subject to propping normally have certain conditions, which tend to be unfavourable, such as: 1) experiencing adverse shock or financial difficulties (Cheung, Rau & Stouraitis 2006; Friedman, Johnson & Mitton 2003; Peng, Wei & Yang 2011); 2) under-performing for a certain period before the RPTs (Cheung, Jing, et al. 2009; Cheung, Rau & Stouraitis 2006; Yeh, Shu & Su 2012); 3) operating in countries with weaker economic institutions (Jian & Wong 2010) (Jian and Wong, 2010); and 4) facing the risk of delisting (Peng, Wei & Yang 2011).

3.3.2 Tunneling

The second reason, suggested by the literature, for a firm to be involved in RPTs is for tunneling. Tunneling refers to shifting resources to its controlling shareholders or other related parties (Johnson et al. 2000). RPTs sales are the most common type of RPTs to tunnel a firm's resources in Hong Kong (Cheung, Rau & Stouraitis 2006). Buysschaert, Deloof and Jegers (2004) illustrate how tunneling occurs through RPTs sales. They assume firm A and firm B are in a group where firm A is fully owned by one shareholder and 60% of firm's B shares are owned by firm A, with the other 40% owned by minority shareholders. Another assumption is made: the profit of firm A and firm B is $100, respectively. Quoted by market price, the profit of firm B will be transferred to firm A $60 and the other $40 will be allocated to minority shareholders. The ultimate owners will obtain profit of $160. Since B is a related party, A can ask B to sell its products at a lower price, for example with a 10% discount price. The profit of B will decline to $90 and is allocated to A and B for $54 and $36, respectively. In total, the profit of A will increase by $4, which consists of $10 more due to the lower price from B minus $6 due to the lower profit in B. This increasing profit of A is the same amount as the profit lost by minority shareholders. Consequently, this transaction

results in transferring assets or resources from minority shareholders to the majority shareholders (Buysschaert, Deloof & Jegers 2004).

When a firm generates more funds, it can provide credit and/or loans to both related parties and non-related parties. If the firm provides more credit and/or loan to its related parties with a higher amount or a favourable policy than non-related parties, it is likely that tunneling provides benefits to its controlling shareholders or other related parties (Jian & Wong 2003; Peng, Wei & Yang 2011). This credit might be in the form of operating items including trade credit or account receivables (Jian & Wong 2003) or non-operating items (Cheung, Rau & Stouraitis 2006; Jian & Wong 2010), including other receivables or lending (Jian & Wong 2003).

Tunneling through RPTs asset sales and RPTs asset acquisition can be executed by selling assets to their controlling shareholders with a lower price and buying assets from their controlling shareholders with a higher price compared to arm's length transaction price (Cheung, Qi, et al. 2009). In the RPTs asset acquisition, cash flow is relocated from the listed firms to the controlling shareholder (Cheung, Rau & Stouraitis 2006). In the RPTs asset sales, some cash flows are retained in the controlling shareholders hand because they pay the asset with a lower price (Cheung, Qi, et al. 2009). Tunneling through RPTs equity acquisition, RPTs equity sales and RPTs trading relationship occurs in a similar way. The firms sell the equity (goods or services in RPTs trading relationship) to the controlling shareholders or related party at a lower price and acquire the equity (goods or services in RPTs trading relationship) from controlling shareholders or related party at a higher price. Additionally, Chinese firms also use non-operational fund occupancy, such as other receivables, to tranfer the firm's resources to related parties (Jiang, G, Rao & Yue 2015).

Most of the related parties involved in tunneling with listed firms are controlling shareholders (Cheung, Jing, et al. 2009; Cheung, Rau & Stouraitis 2006; Jian & Wong 2003; Jian & Wong 2010; Jiang, G, Lee & Yue 2010; Liu, Q & Lu 2007; Peng, Wei & Yang 2011). With their majority ownership in the listed firms, controlling shareholders have the power to decide and choose the parties that the listed firms should involve in their operation activities. They also have the power to influence and define the amount and price of transactions or other policies. Tunneling through RPTs is easy to conduct when the firm operates in a country with weak investor protection (Friedman, Johnson & Mitton 2003; Johnson et al. 2000) or in a less economically developed region (Jiang, G, Lee & Yue 2010). Characteristics of firms that are subject to tunneling are where: the owner has lower controlling rights than cash-flow rights (Peng, Wei & Yang 2011); the firm is being controlled by a group-firm (Jian & Wong 2003); there are favourable financial conditions such as generating of high free cash flow, high growth prospects and profitable financial conditions (Berkman, Cole & Fu 2009; Jian & Wong 2003; Jiang, G, Lee & Yue 2010; Peng, Wei & Yang 2011); and there is higher leverage (Berkman, Cole & Fu 2009; Jiang, G, Lee & Yue 2010).

Djankov et al. (2008) develop a measurement, called the anti-self-dealing index, to protect minority shareholders from tunneling being carried out by the controlling shareholders. The index is formed by stylising self-dealing transactions and measuring the difficulties faced by the controlling shareholders in being involved with self-dealing transactions. Higher difficulties are reflected by a higher anti-self-dealing index. They look for the legal minimum requirements in self-dealing transaction, including: 1) the person in charge to approve the transaction; 2) the information that is disclosed to the BOD or BOC, shareholders and authorities; 3) the tasks of officers, directors, and controlling shareholders; 4) the validity process of transactions; 5) the identification of the source of types of problem that result in legal action if buyers suffer damages; 6) evidence and supporting documents in each cause of legal action; 7) the person in charge to sue under each cause of legal action; 8) the availability of direct and derivative suits; 9) access to information and discovery rights; and 10) fines and sanctions. They treat equally all sources of law, including the firm act, civil and commercial code, case law and judicial precedent, the stock market act and regulations, stock exchange listing rules, civil procedure code and criminal code. They find that the index in common law countries is higher compared to civil law countries (Djankov et al. 2008).

3.3.3 Purely Economic Reasons

The third reason for the firm to be involved in RPTs is purely economic. Firms in their business activities always face uncertainties, such as market behaviour, supplier deliveries, shareholders attitudes, competitor behaviours and the government's future actions in their business activities (Cyert & March 1963). Hence, firms may solve some problems arising from uncertainties through RPTs. Firms perform RPTs to fulfill firm economic needs such as in-depth firm knowledge and expertise (Gordon & Henry 2005). RPTs that are carried out for purely economic reasons can enhance the firm value by aligning firm operation, establishing strategic partnership, improving risk sharing and supporting contracting (Kohlbeck & Mayhew 2010). For example, firms form strategic partnerships through vertical integration or joint ventures to provide and protect access to goods supplies or markets and to manage risk. In addition, RPTs could provide some possible benefits, for example: facilitating for better coordination of the various activities, quicker and more insightful feedback through appointing related parties as board members; providing in-depth reciprocal knowledge and generating more appropriate terms and conditions for involving parties; mitigating hold up problems; and compensating the CEO and directors for increased risk (Pizzo 2013).

There are only limited studies on RPTs that address RPTs for purely economic reasons. Khanna and Palepu (2000) examine firm performance of affiliated with Indian business group firms compared to firm performance of non-affiliated firms. They provide evidence that group diversification firstly has negative influence on firm performance as measured by accounting and stock market measurement, but finally has positive impact when group diversification achieves

a certain level. They also find that access to an international source of capital for group affiliated firms is good. Technology providers are averse to involvement with groups but there is also evidence that larger groups assist group members to access international joint venture markets. Insider ownership has positive influence to firm performance for both firms with group affiliation and firms with non-group affiliation.

In addition, Lei and Song (2011) provide evidence that certain types of RPTs are performed to improve future firm performance. They find that connected and disclosable transactions have significant positive relationship with firm performance. They also discover that RPTs interest acquisition provide significant positive effect on firm performance. The announcement of RPTs interest acquisition obtains positive reaction in the market. This positive influence is mainly because most of those transactions are focusing on ownership acquisition in a joint venture or other industry to enhance future firm performance.

While there is evidence on the benefits of RPTs to certain parties, there are also disadvantages being brought about by RPTs to the firm or the firm's stakeholders. First, RPTs for tunneling remove the wealth of the firm at the expense of other stakeholders such as minority shareholders since the firm normally has to pay goods and/or services at a higher price than the price quoted in arms' length transactions when the firm buys assets, or the firm will generate a lower price in RPTs compared to the price quoted in arms' length transaction when the firm sells assets (Buysschaert, Deloof & Jegers 2004; Cheung, Jing, et al. 2009; Kohlbeck & Mayhew 2010; Lo, Agnes W.Y., Wong & Firth 2010; Yeh, Shu & Su 2012). Second, RPTs through loan guarantees can result in the firm that issues the loan guarantee having to pay the loan if the firm that receives the loan guarantee defaults (Berkman, Cole & Fu 2009). Third, RPTs provide opportunities for management to enrich themselves and to deliver misleading financial statements. For example, management can increase the sales above the threshold through RPTs in order to obtain extra payment or bonuses (Kohlbeck & Mayhew 2010). Fourth, RPTs through transfer pricing can result in loss of a government's tax revenues. Management use RPTs through transfer pricing as a tool to allocate profits and firm's resources around and decide the firm that they want the profit to be included (Lo, Agnes W.Y., Wong & Firth 2010; Yeh, Shu & Su 2012). Tax havens facilitate and enable the firm to relocate the profits through transfer pricing from a country with higher tax rate to a country with low-tax rate or no taxes on certain classes of income (Tanoto 2013).

3.4 Empirical Evidence on RPTs

RPTs of firms are analysed in many ways (Table 3.1), including in the following classifications based on the: 1) total amount or total number of transactions (Berkman, Cole & Fu 2010; Gordon &

Henry 2005; Kang et al. 2014); 2) nature of transactions (Jian and Wong 2003; Gordon et al. 2004; Cheung et al. 2009a; Chen et al. 2009; Jian and Wong 2010; Peng et al. 2011; Lei and Song 2011); 3) related party involved in the RPTs (Friedman, Johnson & Mitton 2003; Gordon & Henry 2005); 4) impact of RPTs (Berkman, Cole & Fu 2010; Cheung, Rau & Stouraitis 2006); 5) motive of the firm to undertake RPTs (Cheung, Jing, et al. 2009; Wan & Wong 2015); 6) level of complexity of RPTs (Kohlbeck & Mayhew 2010); and 7) firm's activities/functions (Kang et al. 2014).

Some scholars examine the total value or number of RPTs (Berkman, Cole & Fu 2010; Gordon & Henry 2005; Gordon, Henry & Palia 2004; Kang et al. 2014; Wan & Wong 2015). Gordon, Henry and Palia (2004) and Gordon and Henry (2005) observe the total number of RPTs and find that it has negative relationship with industry adjusted returns (Gordon, Henry & Palia 2004) and insignificant negative relationship with earnings management measured by adjusted absolute abnormal accruals (Gordon and Henry 2005). Meanwhile, Berkman, Cole and Fu (2010) use total value of all RPTs that are potentially harmful for the firm (RPTs asset acquisitions, RPTs asset sales, RPTs equity sales, RPTs trading relationships and RPTs cash payment) and find that during the year before the new regulations to protect minority shareholders were implemented, minority shareholders of the firms with higher total value of RPTs have higher abnormal returns compared to those with lower total value of RPTs. Kang et al. (2014) find that control ownership has positive association with total amount of RPTs and total amount of RPTs have negative impact on firm performance measured with Tobin's Q. Similarly, Wan and Wong (2015) find that RPTs have negative impact on firm performance.

When examining RPTs based on the nature of transactions, the researchers have investigated at the following types of RPTs as shown in Table 3.1: RPTs sales, RPTs purchases, RPTs receivables, RPTs payables, RPTs receivables and payables, RPTs lending, RPTs borrowing, RPTs loans, RPTs direct services, RPTs investments, RPTs fixed rate financing, RPTs assets acquisitions, RPTs assets sales, RPTs equity sales, RPTs equity purchases, RPTs loan and guarantees, RPTs equity transfers, RPTs cash payment, RPTs cash receives, RPTs assets swap, RPTs trading relationships, RPTs guarantees, RPTs lease, RPTs service revenue, RPTs expenses, RPTs interest income, RPTs interest expenses, RPTs rent revenues, RPTs rent expenses, RPTs trademark rights transfers, RPTs placement and RPTs joint investments. They cover all aspects of transactions that are included in the income statements and balance sheets.

Table 3.1 Types of RPTs

RPTs Classification	Author	Data	Type of RPTs
1) Total value or total number of RPTs	Elizabeth A. Gordon, Elaine Henry and Darius Palia (2004)	US publicly traded firms in year 2000 and 2001	The amount of transaction with related parties
	Elizabeth A. Gordon, Elaine Henry (2005)	US publicly traded firms in year 2000 and 2001	The amount of transaction with related parties
	Cynthia Afriani Utama, Sidharta Utama (2009)	Announcements of investment decision from 1 January 2000 to 31 December 2005	1. Announcement of RPTs 2. Announcement of non-RPTs 3. The status of group affiliation 4. The status of non-group affiliation
	Henk Berkman, Rebel A.Cole, Lawrence J. Fu (2010)	887 Chinese listed firm in 1999	Total value of RPTs that are potentially harmful for the listed firm
	Minjung Kang, Ho-Young Lee, Myung-Gun Lee, Jong Chool Park (2014)	181 listed chaebol firms in Korea from 2003 to 2010 (982 firm-years)	Total amount of RPTs
	Cynthia Afriani Utama, Sidharta Utama (2014)	253 Indonesian Listed Firms in 2006	Size of RPTs: 1. Total RPTs Assets and RPTs Liabilities 2. RPTs Assets 3. RPTs Liabilities
	Yezhen Wan, Leon Wong (2015)	90 Chinese listed firms in 2007 – 2009 (45 SOEs and 45 privately controlled)	Total amount of RPTs
2) Based on the nature of transactions	Ming Jian and T.J. Wong (2003)	Chinese listed firms between 1997 and 2000 (mining, lumber, chemicals, and building materials)	1. RPTs sales 2. RPTs purchases 3. RPTs receivables 4. RPTs payables 5. RPT lending 6. RPTs borrowing
	Elizabeth A. Gordon, Elaine Henry, Darius Palia (2004)	US publicly traded firms in year 2000 and 2001	1. RPTs employment/direct services 2. RPTs purchases of goods or service 3. RPTs sales 4. RPTs loans to or from 5. RPTs investment 6. RPTs other
	Elizabeth A. Gordon, Elaine Henry (2005)	US publicly traded firms in year 2000 and 2001	1. RPTs direct services 2. RPTs purchases of services or goods 3. RPTs sales 4. RPTs loans 5. RPTs fixed rate financing 6. RPTs investment 7. RPTs other
	Cheung, Y.L, Jing, L, Lu, T, Rau, R, Stouraitis, A (2009a)	Chinese listed firms during 2001 – 2002	RPTs with controlling shareholders in seven categories: 1. RPTs asset acquisitions, 2. RPTs asset sales, 3. RPTs asset swaps, 4. RPTs trading relationship, 5. RPTs cash payments, 6. RPTs cash receipt, 7. RPTs relationships with non-listed subsidiaries.
	Yenpao Chen, Chien-Hsun Chen, Weiju Chen (2009)	Chinese listed firms in 2002 - 2006	1. RPTs sales 2. RPTs purchase 3. RPTs assets 4. RPTs loan 5. RPTs guarantee 6. RPTs lease 7. RPTs other

RPTs Classification	Author	Data	Type of RPTs
	Ming Jian and T.J. Wong (2010)	Chinese listed firms from 1998 through 2002	1. RPTs sales 2. RPTs purchases of goods and products 3. RPTs account receivables and payables 4. RPTs loan to and from and other receivables and payables 5. RPTs service revenues 6. RPTs expenses 7. RPTs interest income 8. RPTs interest expense 9. RPTs assets purchase 10. RPTs assets sales 11. RPTs stock purchases 12. RPTs stock sales 13. RPTs rent revenue 14. RPTs rent expense 15. RPTs joint investment 16. RPTs loan guarantee to 17. RPTs loan guarantee from
	Winnie Qian Peng, K.C. John Wei, Zhishu Yang (2011)	Chinese listed firms during the period 1998-2004	1. RPTs Asset Acquisition, 2. RPTs assets sales, 3. RPTs assets displacement, 4. RPTs cash payment, 5. RPTs equity transfer 6. RPTs cash receipts 7. RPTs asset leases 8. RPTs loan guarantees 9. RPTs trademark rights transfers
	Adrian C.H. Lei, Frank M. Song (2011)	Chinese listed firms in Hong Kong in 1 January 2002 – 31 December 2004.	1. RPTs continuing 2. RPTs contractual agreement 3. RPTs assets acquisition 4. RPTs assets disposal 5. RPTs interest acquisition 6. RPTs interest disposal 7. RPTs loan and guarantee 8. RPTs placement 9. RPTs others
	Agung Juliarto, Greg Tower, Mitchell Van der Zahn, Rusmin Rusmin (2013)	200 firm years observation data of listed firms in five ASEAN Countries in 2006 - 2009	RPTs Tunneling (RPTs Lending)
	Ahsan Habib, Abdul Haris Muhammadi, Haiyan Jiang (2017)	1.775 firms year observations during 2007 – 2013 Indonesian Listed Firms	Abnormal RPTs 1. Abnormal RPTs net credit (RPTs lending-RPTs borrowing) 2. Abnormal RPTs sales (RPTs sales/Total Revenue) 3. Abnormal RPTs loan 4. Abnormal RPTs operating 5. Abnormal RPTs others
3) Based on related party involved	Elizabeth A. Gordon, Elaine Henry (2005)	US publicly traded firms in year 2000 and 2001	1. The primary party involved in 2. The secondary party involved in
	Mark Kohlbeck, Brian W. Mayhew (2010)	US firms included in 2001 S&P 1500	1. RPTs with director, officer, shareholders or their affiliates 2. RPTs investment
4) Based on the impact of RPTs	Yan_Leung Cheung, P. Raghavendra Rau, Aris Stouraitis (2006)	Hong Kong publicly listed firms during 1998 – 2000	1. Transactions that are a priori likely to result in expropriation: a. asset acquisitions, b. asset sales, c. equity sales, d. trading relationships, and e. cash payment to related parties; 2. Transactions that are likely to benefit the listed firm: f. cash receipts and g. subsidiary relationships and

RPTs Classification	Author	Data	Type of RPTs
			3. Transactions that may be driven by strategic rationales: h. takeover offers and joint ventures, i. joint venture interest acquisition and j. joint venture interest sales.
	Henk Berkman, Rebel A.Cole, Lawrence J. Fu (2010)	887 Chinese listed firm in 1999	1. Transactions that are potentially harmful for the listed firm: a. asset acquisitions, b. asset sales, c. equity sales, d. trading relationships, and e. cash payment to related parties; 2. Transactions that are potentially beneficial for the listed firm: f. cash receipts and g. loan or guarantee
5) Based on the motive of the firm engage in RPTs	Yan-Leung Cheung, Lihua Jing, Tong Lu, P. Raghavendra Rau, Aris Stouraitis (2009)	292 filings of Chinese listed firm during 2001-2002	1. Ex ante potentially tunneling transactions a. RPTs assets acquisitions b. RPTs assets sales c. RPTs assets swap d. RPTs trading goods and services e. RPTs cash payment 2. Ex ante potentially propping transactions f. RPTs cash receipts g. RPTs with non-listed subsidiaries
	Yezhen Wan, Leon Wong (2015)	90 Chinese listed firms in 2007 – 2009 (45 SOEs and 45 privately controlled)	1. RPTs classified as tunneling a. RPTs purchases b. RPTs sales of goods c. RPTs rendering and accepting d. RPTs services e. RPTs assets acquisitions f. RPTs assets sales g. RPTs provision of loans or loan guarantees by related parties h. RPTs rent and lease expenses i. RPTs emoluments j. RPTs other payments 2. RPTs classified as propping k. RPTs loans and loan guarantees granted by related parties l. RPTs lease income m. RPTs other income
6) Based on the level of complexity of transaction	Mark Kohlbeck, Brian W. Mayhew (2010)	US firms included in 2001 S&P 1500	1. Simple RPTs a. RPTs loans b. RPTs borrowings c. RPTs guarantees d. RPTs consulting arrangements e. RPTs legal and investment services f. RPTs leases 2. Complex strategic RPTs g. RPTs related business activities h. RPTs unrelated business activities i. RPTs overhead reimbursement j. RPTs stock transactions
7) Based on the firm's activity	Minjung Kang, Ho-Young Lee, Myung-Gun Lee, Jong Chool Park (2014)	181 listed chaebol firms in Korea from 2003 to 2010 (982 firm-years)	1. RPTs operating 2. RPTs non-operating

For the related party involved in the RPTs, Gordon and Henry (2005) examine the primary and secondary parties. A primary related party is a party that has direct relationship with the firm, for example: providing a loan to an executive lead to classify such executive as primary related party. A secondary related party is a family member, firm that is owned by or firm that has an affiliation with the primary related party. They are grouped by executives, executive's business, non-executives, non-executive's business, principal owners, subsidiaries and others. Furthermore, in the executive group and executive's business, the secondary party involved in RPTs consists of executive chairman, executive board members and non-board executives. The non-executive and non-executive's business consist of non-executive board members and non-executive chairman. They investigate the impact of RPTs with those related parties on earnings management and find that RPTs with executives chairman as primary party has negative relationship with earnings management. RPTs with executive chairman, RPTs with executive's business chairman and RPTs with principal owners are also found to have negative influence on earnings management (Gordon & Henry 2005). In addition, Kohlbeck and Mayhew (2010) observe RPTs with directors, officers, shareholders or their affiliates and RPTs with firm investment. Transactions with a director, an officer of the firm, a shareholder of the firm with more than 5% ownership or an affiliate of a director, officer or shareholder of the firm are classified as RPTs with directors, officers, shareholders or their affiliates. Meanwhile, transactions with a joint venture or other operation that are owned by firm and not consolidated with the firm's financial statements are classified as RPTs investment. They reveal that RPTs loan to directors, officers, shareholders or their affiliates have negative impact on firm performance measured with Tobin's Q, market value of common shareholders' equity and annual returns (Kohlbeck & Mayhew 2010).

In the case of RPTs based on the impact of RPTs, Cheung, Rau and Stouraitis (2006) examine transactions that are *a apriori* likely to result in expropriation (asset acquisitions, assets sales, equity sales, trading relationships and cash payment to related parties), transactions that are likely to benefit the listed firm (cash receipts and subsidiary relationships) and transactions that may be driven by strategic rationales (takeover offers and joint ventures, interest acquisition of joint venture and interest sales of joint venture). They find that firms announcing transactions that are *a priori* likely to result in expropriation (RPTs assets acquisitions, RPTs assets sales, RPTs equity sales, RPTs trading relationships and RPTs cash payment) have negative firm performance measured with cumulated abnormal returns (CARs), but firms with transactions that are likely to benefit the firm (RPTs cash receipts and RPTs subsidiary relationship) have positive CARs (Cheung, Rau & Stouraitis 2006). Similarly, Berkman, Cole and Fu (Berkman, Cole & Fu 2010) classify the RPTs into transactions that are potentially harmful for the listed firm and transactions that are potentially beneficial for the listed firm. Five RPTs are included as transactions that are potentially harmful for the listed firm: RPTs asset acquisitions, RPTs asset sales, RPTs equity sales, RPTs trading relationships and RPTs cash payment, while two RPTs are included as transactions that are

potentially beneficial for the listed firm: RPTs cash receipts and RPTs loan or guarantees. Using the total value of all RPTs that are potentially harmful for the listed firm during the year before the new regulations to protect minority shareholders were implemented, they find that minority shareholders with higher total value of RPTs have higher abnormal returns compared to those with lower total value of RPTs (Berkman, Cole & Fu 2010).

With regards to RPTs based on the motive of the firm engage in RPTs, Cheung et al. (2009) differ RPTs in Chinese firms into RPTs that are *ex ante* potentially tunneling and *ex ante* potentially propping, while Wan and Wong (2015) group the RPTs into tunneling and propping. The type of RPTs that are included in potentially tunneling or tunneling and potentially propping or propping are summarised in Table 3.1. Cheung et al. (2009) find that RPTs ex ante potentially tunneling (particularly RPTs assets acquisition, RPTs asset swap, RPTs trading relationship and RPTs cash payment) have negative association with firm performance measured with CARs while RPTs ex ante potentially propping (particularly RPTs cash receipt) have positive relationship with CARs in Chinese firms. Meanwhile, Wan and Wong (2015) find that state owned firms undertake more tunneling compared to private owned firms in China.

When investigating RPTs based on the level of complexity of the transaction, Kohlbeck and Mayhew (2010) use the United States sample firms and classify RPTs into simple and complex strategic RPTs. RPTs are classified as simple transactions if they are direct transactions that involve relatively few related parties and accounts in financial statements, and are usually avoidable because a third party could substitute the related party with minimal noticeable impacts, for example: RPTs loans, RPTs guarantees, RPTs borrowings, RPTs consulting arrangements, RPTs legal and investment services and RPTs leases. RPTs are grouped into complex strategic RPTs if they are involved a number of related parties and accounts in financial statements, conditions and influence the financial statements in less obvious ways, for example: RPTs related business activities, RPTs unrelated business activities, RPTs overhead reimbursements and RPTs stock transactions (Kohlbeck & Mayhew 2010). They find that simple RPTs have a negative influence on market performance measured with Tobin's Q, market value of common shareholders' equity and annual returns. In addition, simple RPTs with directors, officers, shareholders or affiliates have a negative relationship with annual returns (Kohlbeck & Mayhew 2010).

In relation to examining RPTs based on the firm's activity or function, Kang et al. (2014) observe and differentiate RPTs into RPTs operating and RPTs non-operating. RPTs operating consist of operating sales and purchases, while RPTs non-operating include sales and purchases of property, plant and equipment, and investment assets. They find that control ownership has positive relationship with RPTs operating and RPTs non-operating, and on average, firms involve in equally both RPTs operating and RPTs non-operating as a tool for tunneling. In addition, the

selection of operating or non-operating depends on the existence of the appropriate partner of transactions in the group. When the sample is separated into the top 5 and non-top 5 Korean chaebol[11], control ownership has positive relationship with RPTs operating and RPTs non-operating in top 5 chaebol, while control ownership has positive relationship with only RPTs non-operating in non-top 5 chaebol (Kang et al. 2014). Kang et al. (2014) discover that the size of RPTs, as well as RPTs operating and RPTs non-operating, are positively influenced by the control-ownership block. RPTs increase when the voting rights increase, whereas RPTs decrease when cash flow rights increase.

This study addresses several types of RPTs for analysis. Referring to Gordon, Henry and Palia (2004), Gordon and Henry (2005), Berkman, Cole and Fu (2010) and Kang et al. (2014), this study uses total value of RPTs to proxy total size of RPTs in examining the relationship between RPTs and firm performance. This study also observes RPTs based on the nature of the transaction. Following the example of RPTs in ISFAS 7 (Revised 2010), this study investigates the four common types of RPTs based on the nature transaction: RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities. In addition, following ISFAS 7 (Revised 2010) related to the definition of related party, this study examines RPTs based on the status of related party: RPTs person and RPTs entity. This study also further examines the sub-category of RPTs entity based on the nature of the relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates).

3.4.1 Empirical Evidence on the Relationship between RPTs and Firm Performance

The existing literature clearly provides evidence about the relationship between RPTs and firm performance as summarised in Appendix A. Different firm performance measurements are used for the studies of relationship between RPTs and firm performance, including accounting and market performance measurements. Some studies use cumulated abnormal returns (CARs) or industry adjusted returns as a market performance measurements when examining the relationship between RPTs and firm performance or earnings management (Berkman, Cole & Fu 2010; Black et al. 2015; Cheung, Jing, et al. 2009; Cheung, Rau & Stouraitis 2006; Du, He & Yuen 2013; Gordon & Henry 2005; Gordon, Henry & Palia 2004; Peng, Wei & Yang 2011; Utama & Utama 2009), and the relationships are positive or negative depending on the types of RPTs. RPTs fixed rate financing are found to have positive effects on earnings management measured with adjusted absolute abnormal accruals (Gordon & Henry 2005), while RPTs cash receipt (Cheung, Rau & Stouraitis 2006), RPTs subsidiary relationships (Cheung, Jing, et al. 2009; Cheung, Rau & Stouraitis 2006) and RPTs during the financial difficulty or STPT period, where ST refers to special treatment when a firm discloses a net loss in two consecutive years and PT refers to firm with ST

[11] Korean business group is called chaebol (Kang et al. 2014).

that experience losses in three consecutive years (Peng, Wei & Yang 2011), have positive relationship with CARs.

In contrast, total number of RPTs, RPTs executive, RPTs non-executive board member, RPTs loan in total amount, RPTs others in total, RPTs loan to executive, RPTs loan non-executive board members and RPTs others non-executive board member are found to have negative association with firm performance measured with industry adjusted returns (Gordon, Henry & Palia 2004). Similarly, RPTs with executive chairman (classified in transaction with primary party), RPTs with executive chairman, RPTs with executive's business chairman and RPTs with principal owner (classified in secondary party) and RPTs management services are found to have negative association with earnings management measured with adjusted absolute abnormal accruals (Gordon & Henry 2005). In addition, Cheung, Rau and Stouraitis (2006) and Cheung, Jing, et al. (2009) find that firms announcing RPTs asset acquisitions, RPTs asset sales, RPTs equity sales, RPTs trading relationship and RPTs cash payments have negative CARs. Firms with RPTs or group affiliation are also found to have lower stock market reaction measured with CARs compared to firms with non-RPTs or non-group affiliation (Utama & Utama 2009). Berkman, Cole and Fu (2010) find that firms with higher RPTs have larger CARs, while Du, He and Yuen (2013) reveal that RPTs have negative association with CARs in the firms that are going to private. The controlling shareholders seem to engage in RPTs that cause losses and result in decreased stock price. Then, the controlling shareholders can acquire the firm's shares with a low price to minority shareholders (Du, He & Yuen 2013).

Moreover, Black et al. (2015) observe the incentives of controlling shareholders through an expropriation risk index (ERI), which captures the extent of RPTs (particularly RPTs sales and purchases goods and services) undertaken by controlling family or a group with a larger percentage of cash flow rights in the related firms than in the subject firm to allocate value of the firm to other firms in which the controlling shareholder has higher cash flow rights. ERI is computed as the sum of RPTs scaled by sales, and the multiplied by cash flow differential. Positive ERI shows that the firm's RPTs are undertaken with related parties owned by the controlling shareholders with higher cash flow rights, thus incentives to divert the value of the firm. They find that firms subject to legal reform in Korea with positive ERI have higher abnormal returns compared to those firms with negative ERI during the period of the reform events (Black et al. 2015). The Korean legal reform relates to the composition of a firm's BOC, the existence of audit committee with an outside director as chairperson and at least two-third outside members, and an outside director nominating the committee for a firm with assets larger than 2 trillion won (equivalent to USD 2 billion) to lead the firm to have better corporate governance. This legal reform is expected by the investors to reduce tunneling and then the firm can generate positive returns (Black et al. 2015).

Other studies have related RPTs with accounting and market measurement (other than CARs) of firm performance. The main variables used to measure firm performance are ROA (accounting performance measurement) and Tobin's Q (market performance measurement). Other variables are used but they are not as popular as ROA and Tobin's Q, such as change in the net outstanding loans with the parent firm, EBITDA, EBITDA to sales ratio, ROE, marginal contribution to group control index, equity shareholding index (accounting performance), dividend yield, leverage, price earnings ratio, buy-and-hold returns, stock price, market to book ratio, stock liquidity, market value of common shareholders' equity, common shareholders' returns, firm's market value, returns of portfolio (market performance). The results of those studies provide evidence that RPTs have positive or negative effects on firm performance.

With regards to ROA as firm performance, Bae, Cheon and Kang (2008) investigate the impact of ROA changes of announcing firms affiliated to chaebol on the ROA changes of non-announcing firms affiliated to chaebol in Korea. They find that an announcement of earnings by a chaebol-affiliated firm influences the market value of other non-announcing chaebol-affiliated firms (Bae, Cheon &Kang 2008). An increased earnings announcement will bring positive effects, whereas a decreased earnings announcement will result in negative effects on the market value of the other chaebol-affiliated firms that do not provide the announcement. The influence is stronger when the announcing firms have controlling shareholders with higher cash flow rights, larger size, high performance and a higher debt guarantee ratio (Bae, Cheon & Kang 2008). Chen, Y, Chen and Chen (2009) separate the control relationship into three conditions: no control relationship, listed firm is the controlling party and listed firm is controlled by related party and find that RPTs purchases, RPTs loan and RPTs leases have positive relationship with firm performance in the no control relationship condition. In the condition that listed firm is controlling firm, RPTs guarantees are found to have positive association with ROA. In the condition that listed firm is controlled firm, RPTs purchases are found to have positive effect on ROA (Chen, Y, Chen & Chen 2009). In addition, RPTs sales and changes in RPTs sales are also found to have positive impact on ROA (Aharony, Wang & Yuan 2010).

In contrast, Khanna and Palepu (2000) examine the relationship between group affiliation and firm performance measured with ROA in diversified Indian business group. They find that group member firms with membership in the least diversified group (defined as group with one to four industries), and membership in the intermediate diversified group (defined as group with five to seven industries) have significant negative with firm performance measured with ROA. In addition, Gallery, Gallery and Supranowicz (2008) observe the impact of ROA on the operating cash flows payment to staff and related suppliers, and find that ROA have negative relationship with the operating cash flows payment to staffs and related suppliers. RPTs guarantees (Berkman, Cole & Fu 2009), RPTs purchases (Chen, Y, Chen & Chen 2009), non-operational fund occupancy to

related parties (Jiang, G, Rao & Yue 2015), RPTs in total amount (Wan & Wong 2015) are also found to have negative effect on ROA. When Chen, Y, Chen and Chen (2009) separate the control relationship into three conditions: no control relationship, listed firm is the controlling party and listed firm is controlled by related party, RPTs sales are found to have significant negative influence on firm performance measured with ROA in the third condition. When one year ahead or future ROA is used to measure the future firm performance, inter-corporate loan and loan guarantees to controlling owner (Chauhan, Lakshmi & Dey 2016) and abnormal RPTs net credit (Habib, Muhammadi & Jiang 2017) are found to have negative influence on future firm performance.

In relation to Tobin's Q as firm performance, Khanna and Palepu (2000) provide evidence that membership in most diversified groups (defined as group with more than seven industries) in India has significant positive impact on firm performance measured with Tobin's Q. This result suggests that there is value addition for the firms that related with the most diversified group through the replacement of the institutional function by the most diversified group. Relationship with a wide diversified group enables the individual firms to decrease the fixed costs due to the scope and scale of the wide diversified group. When the control relationship is separated into three conditions: no control relationship, listed firm is the controlling party and listed firm is controlled by related party, Chen, Y, Chen and Chen (2009) find that RPTs purchases have positive influence on Tobin's in condition the listed firms as controlled firm. In addition, Wong, Kim and Lo (2015) use industry adjusted Tobin's for market performance measurement in their study and find that RPTs and abnormal RPTs sales have positive relationship with firm performance.

However, RPTs are also found to have negative impact on Tobin's Q. RPTs guarantees (Berkman, Cole & Fu 2009), RPTs purchases in all sample firms (Chen, Y, Chen & Chen 2009), firms that disclose RPTs, simple RPTs and RPTs loan to directors, officers, shareholders and their affiliates (Kohlbeck & Mayhew 2010), RPTs asset disposal, RPTs loans and guarantees (Nekhili & Cherif 2011) and non-operational fund occupancy to related parties (Jiang, G, Rao & Yue 2015) are found to have negative relationship with Tobin's Q. When the control relationship is separated into three conditions: no control relationship, listed firm is the controlling party and listed firm is controlled by related party, Chen, Y, Chen and Chen (2009) find that RPTs leases have negative relationship with Tobin's where there is no control relationship. When a listed firm acts as controlled firm, RPTs loans, RPTs guarantees and RPTs leases (Chen, Y, Chen & Chen 2009) and RPTs directly undertaken with the main shareholders, board members and directors (Nekhili & Cherif 2011) are found to have negative effect on Tobin's Q. In addition, RPTs in total amount are also found to have a negative effect on Tobin's Q (Kang et al. 2014). According to Kang et al. (2014), numerous Korean firms are members of business groups called chaebol, which are commonly controlled by founding family members. By doing so, only several shareholders have a control over all related

firms even though they only have a low percentage of cash flow rights. The pyramidal ownership structure and cross-shareholdings enhance the control-ownership wedge and raise the agency problem between controlling shareholders and minority shareholders. With a weak legal protection of minority shareholders, the controlling shareholders may exploit the minority shareholders through RPTs (Kang et al. 2014).

Only a few studies use cash flows as firm performance measurement in the analysis. Gallery, Gallery and Supranowicz (2008) use operating cash flows payment to staff and related suppliers and loan to related parties to proxy RPTs as dependent variables, while ending cash balance and unused financing facilities, operating cash flows other than payment to staff and related suppliers and investing cash flows other than loan to related parties are used as independent variable. They find that ending cash balance, unused financing facilities and operating cash flows other than payment to staff and related parties have positive relationship with operating cash flows payment to staff and related suppliers, while investing cash flows other than loan to related party have positive association with loan to related parties. In contrast, ending cash balance and unused financing facilities are found to have negative effect on loan to related parties (Gallery, Gallery & Supranowicz 2008).

With regards to other performance measurement, RPTs are also found to have positive and negative impact on firm performance. In the United Kingdom, business group affiliation enhances the firm's growth, particularly for micro, small and medium sized firms in declining industries (Bamiatzi et al. 2014). Small firms gain more benefits from business group affiliation to solve their limitation of resources, market power and strategic choices. The contrast effect is found in large firms, where large firms are found to have better potential growth when they are independent compared to those affiliated to business groups. In Italy, business groups are not carried out as a single entity, so the subsidiaries on some occasions are not really controlled by the parent firms (Di Carlo 2014). This practice appears as a result of a regulation that enforces the transparency of directing activity. According to Di Carlo (2014), this transparency lead the controlling shareholders to delegate the decision making to the subsidiaries and not engaging in RPTs among firms in the business group that does not have clear economic connections. Therefore, the transparency of directing activity prevents the exploitation of the minority shareholders (Di Carlo 2014). The detailed impacts of RPTs on other firm performance measurement are shown in Appendix A.

When relating RPTs with firm performance, it is important to observe whether the total size of RPTs, which are represented by the total amount of RPTs, and the types of RPTs influence firm performance. The relationship of total size of RPTs in the form of total amount of RPTs has been discussed early in Section 3.4. Looking at RPTs based on the nature of transactions, this review

includes the types of RPTs that relate to RPTs sales, RPTs purchases, RPTs lending and RPTs borrowing, and their impact on firm performance.

RPTs sales with controlling shareholders and other group member firms are found to have positive influence on firm performance measured with CARs (Jian & Wong 2003). The reasonable justification for this result is firms involved in RPTs sales due to efficiency in the listed firms. The other reason is to manage earnings, particularly to increase earnings, due to the motives of avoiding delisted or right issue plans. If listed firms conduct RPTs sales to achieve firm efficiency, investors will respond positively and hence, the returns will be positive. RPTs sales are found to be the most common type of RPTs undertaken by firms in China (Jian & Wong 2010). Before the economic crisis in 2003-2007, RPTs sales are also found to be the majority of the RPTs disclosed in Italy (Bava & di Trana 2016).

In addition, RPTs sales are also used to increase earnings before IPO and followed by relocating the firm's resources after IPO for the parent firm's benefits in China. To do so, the firm provides the parent firm with non-repayment of an outstanding loan (Aharony, Wang & Yuan 2010). Consistently, abnormal RPTs sales are also revealed to have positive relationship with firm performance measured with industry adjusted Tobin's Q (Wong, Kim & Lo 2015).

However, Chen, Y, Chen and Chen (2009) do not provide similar evidence in their study. When they examine the relationship between RPTs sales and firm performance and differentiate the control relationships into three conditions: 1) no control relationship; 2) listed firm is the controlling party; and 3) listed firm is controlled by related party, RPTs sales are found to have significant negative influence on firm performance measured with ROA in the third condition, but are insignificant in the first and second conditions (Chen, Y, Chen & Chen 2009). Moreover, RPTs in the form of related sales are used to support the financing of the Korean firms where heirs become major shareholders and provide opportunities for them to increase their control over other firms in the group through the pyramid ownership structure (Hwang & Kim 2016).

With regards to RPTs purchases, Chen, Y, Chen and Chen (2009) observe the relationship between RPTs purchases and firm performance and separate the sample firms into three conditions of control relationship. They find that RPTs purchases have positive association with firm performance measured with ROA in the conditions of no control relationship and listed firm is controlled by related party. RPTs purchases also have significant positive influence on firm performance measured with Tobin's Q in the condition where the listed firm is controlled by related party (Chen, Y, Chen & Chen 2009). In contrast, when all sample firms are used in the analysis, RPTs purchases are revealed to provide significant negative influence on firm performance measured by with ROA and Tobin's Q in Chinese listed firms (Chen, Y, Chen & Chen 2009).

Negative relationship is also found between RPTs purchases and earnings management measured with adjusted absolute abnormal accruals (Gordon & Henry 2005).

When RPTs sales and RPTs purchases are added together in the analysis, RPTs purchases and sales are found to have negative relationship with firm performance measured with market to book ratio in the private-controlled firms, profitability of the firms with future financial distress, and stock liquidity (Huyghebaert & Wang 2012). According to Bava and di Trana (2016), the magnitude of RPTs sales and RPTs purchases are influenced by the voting rights of the firm's controlling shareholders. Large shareholders have the power and incentives to pursue their own interests such as maximising their benefits.

RPTs total loans, RPTs loans to executive, RPTs loans to non-executive board member are found to have significant negative effect on firm performance measured with industry adjusted returns (Gordon, Henry & Palia 2004). RPTs loans also generate negative influence on firm performance measured with Tobin's Q when listed firms controlled by related party (Chen, Y, Chen & Chen 2009). Similarly, RPTs loans to directors, officers and shareholders have significant negative impact on firm performance measured with Tobin's Q, market value of common shareholders' equity and annual return (Kohlbeck and Mayhew 2010). RPTs in the form of related loan guarantees are used by shareholders with excess control right to influence firm value. In the firms with non-state and private shareholders, excess control rights have been positively related to the probability that the firm will issue value-destroying RPTs loan guarantees and associated with worse stock market reactions to the announcements of RPTs loan guarantees (Xiao & Zhao 2014). RPTs loan are also found to have negative association with future firm performance (Chauhan, Lakshmi & Dey 2016).

Other studies also observe providing loans to related parties, naming them as RPTs lending and examine their relationship with firm performance. RPTs lending are found to have negative relationship with firm performance measured with Tobin's Q and market-to-book ratio (Jian & Wong 2003). Since RPTs loan or RPT lending is used to facilitate tunneling (Habib, Muhammadi & Jiang 2017; Jian & Wong 2003; Jian & Wong 2010; Juliarto et al. 2013), the market responds to those RPTs by reducing the share price (Jian & Wong 2003). The extent of tunneling through RPTs lending is positively influenced by the managerial ownership. Without the existence of other internal governance mechanisms, managerial shareholdings may reduce the monitoring level to the detriment of the minority shareholders. As manager shareholding increases, their interests are more like those of controlling shareholders. As a result, the essential monitoring tool for minority shareholders to get good corporate governance disappears (Juliarto et al. 2013).

In Indonesia, announcements of RPTs have a lower influence on the stock price reaction measured with cumulated abnormal returns compared to non-RPTs. Group affiliation also has a lower impact on the stock price reaction than non-group affiliation (Utama and Utama 2009). Utama and Utama (2014) find that the extent of RPTs disclosure is positively influenced by corporate governance practices, size of RPTs and size of the firm. Firms with good corporate governance practices disclose RPTs better than firms with weak corporate governance. Firms that engage in extensive RPTs provide more disclosure than firms undertaking less RPTs. Larger firms have better disclosure of RPTs compared to smaller firms.

In addition, Juliarto et al. (2013) document that the extent of RPTs lending in Indonesia is moderate compared to four other countries in South East Asian Region (Malaysia, the Philippines, Singapore and Thailand). On average, it is the third highest with a ratio 0.0303 of total assets of firm. The Philippines has the highest RPTs lending (0.0955), Singapore the second highest (0.0329), followed by Thailand (0.0085) and Malaysia (0.0049). RPTs net credit is used by politically connected firms in Indonesia, specifically government connected firms, to relocate the firm's resources (Habib, Muhammadi & Jiang 2017). Such firms are found to engage more in earnings management. As a result, the effect of RPTs net credit is found to be negatively related to future firm performance measured with one year ahead ROA and next year Tobin's Q.

Based on the literature, there are research gaps in examining the relationship between RPTs and firm performance that have not been explored by any scholars. The first gap is related to the types of RPTs. Many scholars examine RPTs with different classifications of RPTs and link them with firm performance. To fill this gap, following ISFAS 7 (Revised 2010) that emphasis related party into person and entity and the example of RPTs based on the nature of transaction, this study examine the relationship between RPTs and firm performance, where RPTs based on the nature of transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs borrowing), RPTs based on the status of related party (RPTs person and RPTs entity) and sub-categories of RPTs entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates). Another gap is related to firm performance measurement. Previous studies use accounting and market based performance measurement and only a few studies use cash flows performance. To fill this research gap, this study uses accounting performance measurement with accrual and cash flows measurement for accounting performance measurement (ROA and CFO) and market performance measurement (Tobin's Q).

Based on the research gaps, the first specific objective of this study is to examine the relationship between RPTs and firm performance. This study addresses several types of RPTs, including: 1) total size of RPTs; 2) RPTs based on the nature of the transactions (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); and 3) RPTs based on the status of related party

(RPTs person and RPTs entity). The sub-categories of RPTs entity based on the nature of the relationship that are also investigated in this study are: (i) RPTs shareholders; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates. Meanwhile, measurements of firm performance used in this study include accounting performance measurement, which is a measure of short-term performance (ROA and CFO), and market performance measurement, which is a long-term performance (Tobin's Q).

Based on the literature, RPTs could provide a positive or negative impact to firm performance. Under the propping up and purely economic motives, the relationship between RPTs and firm performance is expected to be positive. A firm will enhance its performance through RPTs so the higher the RPTs, the higher the firm performance. However, under the tunneling motives, the relationship between RPTs and firm performance is expected to be negative. The RPTs will result in the relocation of the firm's assets to the related parties that in the end may contribute to a decrease in the firm performance. Most empirical studies reveal that RPTs lending is a way to tunnel the firm's assets and has negative influence on firm performance. Lending to related parties can be viewed as transferring the firm's assets to related parties, especially when there is no interest or lower interest in this related lending transaction. The firm that lends the assets cannot use those assets in the operation to obtain revenue or does not receive interest income (or receives lower interest income). Thus, in the end, RPTs lending will negatively influence firm performance.

In the Indonesian context, most firms have related parties or are a related party of other firms that are in the integrated business line or in a different business line. When a firm is involved in RPTs with other firms that are in the integrated business line, the firm can secure supplies of materials or market for their products. When a firm conducts RPTs with other firms that are in a different business line, the firm can obtain goods or services or other resources with better conditions in terms of quality, quantity, delivery time or other conditions. This involvement in RPTs is expected to enhance firm performance. Following ISFAS 7 (Revised 2010), which clearly differentiates the related party into person/individual and entity, this study classifies the RPTs based on the status of related party into RPTs person and RPTs entity. The reason for this classification is to discover the influence of each type of these related parties on firm performance, which consist of short-term performance (ROA and CFO) and long-term performance (Tobin's Q). This study will reveal whether RPTs based on the status of related party: transactions with related persons/individuals and transactions with related entities have an impact on short-term performance or long-term performance, or both short-term and long-term performance. Since most Indonesian firms have related parties or are a related party of another firm, it is expected that a firm involved more with related entities than with related persons/individuals will have more enhanced firm performance, particularly for short-term performance, than in the opposite case.

Moreover, the types of relationship between a firm and a related entity can be classified as follows:

1) the entity and the reporting firm are members of a business group (meaning that the parent firm, subsidiaries and further subsidiaries are related to each other);
2) the entity is an associate or joint venture of another firm that is in the same business group with the reporting firm;
3) the entity and the reporting firm are joint ventures owned by the same third party;
4) the entity is a joint venture of a third party and the reporting firm is an associate firm of such third party or otherwise, the entity is an associate firm of a third party and the reporting firm is a joint venture owned by such third party;
5) the entity carries out a post-employment benefit plan for the benefit of the reporting firm employee or of any entity related to the reporting firm employee. If the reporting firm organises the post-employment benefit plan, the sponsor firm is classified as related to reporting firm where;
6) the entity is controlled or jointly controlled by an individual or close family related to the reporting firm; and
7) the entity, the entity's key person, or the entity's parent is significantly influenced by the individual that has control or joint control of the reporting firm.

Thus, an entity is classified as a related entity with the reporting firm if they are shareholders, or members of the same business group, or have the same owner, or are carrying out the post-employment benefits of the reporting firm's employees, or the firm is controlled or influenced by the related person of the reporting firm (Institute of Indonesia Chartered Accountants 2010). Then, this study sub-categorises and examines the RPTs entity based on the nature of the relationship into: (i) RPTs shareholders; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates to find the influence of each type of related entity on firm performance, which type of RPTs with entity based on the nature of relationship will have an impact on short-term performance and which one will have an impact on long-term performance, or which one will have an impact on both short-term and long-term performance. It is expected that each type of related entity will provide positive influence on firm performance because a firm engages in RPTs with a related entity for the following reasons: to enhance firm performance by having access to insider information; to have a better understanding the credibility of other firms that they are involved with, the quality of the product that they are purchasing and the skills and expertise of the firms or individuals that deliver the services (Gordon & Henry 2005); to enhance coordination, provide faster feedback and in-depth reciprocal knowledge as well as to mitigate hold up problems (Pizzo 2013); and to align firm operations, create strategic partnerships, engage in risk sharing and facilitate contracts (Kohlbeck & Mayhew 2010). Moreover, it is expected that transactions with related entity will have an impact on short-term and long-term performance since a firm is involved with related entity in the daily business process to gain a yearly profit and for long-term period. Meanwhile, transactions with

related persons/individuals is expected to have an impact on long-term performance measured with Tobin's Q because when most of the RPTs with related persons/individuals are in the form of payment of benefits to the key management persons of a firm, a firm with a higher performance in the long-term period will hire more key management persons and as a result the RPTs person will increase.

Hence, it is expected that the positive impact of RPTs will exceed the negative impact of RPTs on firm performance, with the exception of RPTs lending, which leads to the following hypothesis for the first objective:

H_1 : *There is a significant positive relationship between RPTs and firm performance*

Since there are several types of RPTs, Hypothesis 1 (H_1) is expanded to several hypotheses as follows:

H_{1a} : *There is a significant positive relationship between total size of RPTs and firm performance*

H_{1b} : *There is a significant positive relationship between RPTs based on the nature of the transaction (RPTs sales, RPTs purchases and RPTs liabilities), except for RPTs lending that have a significant negative relationship, and firm performance*

H_{1c} : *There is a significant positive relationship between RPTs based on the status of related party (RPTs person and RPTs entity) and firm performance*

H_{1d} : *There is a significant positive relationship between RPTs with related entity based on the nature of the relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) and firm performance*

3.4.2 Empirical Evidence on the Relationship between Characteristics of Corporate Governance and Firm Performance

Corporate governance provides the framework to achieve the firm's vision and mission, guidance to manage the firm as well as balancing the interest of the firm stakeholders (Das & Dey 2016). According to Love (2011), corporate governance may influence some aspects of firm performance such as operating performance, market value and stock return. The implemented corporate governance can improve operating performance in several ways. Examples of improvement due to the implementation of corporate governance are: 1) better oversight that results in value-maximising and efficient operating activities; 2) less waste of resources; 3) reducing tunneling, asset-stripping, RPTs and other diverting of firm assets; 4) lowering the cost of capital since better investor protection can result in lower risk, and in turn, lower returns; and 5) improving external finance availability, which can bring increase in profitable growth opportunities. The occurrence of these conditions may bring in the market value due to the higher cash flow. Stock return improvement will occur as the reflection of those improvement factors (Love 2011). Better

governance can also reduce RPTs by controlling shareholders and in so doing it can improve the future firm performance (Chauhan, Lakshmi & Dey 2016).

A strong governance framework enables a firm to strengthen its business by: 1) facilitating board oversight; 2) strengthening management's control; and 3) creating trust from the firm's stakeholders (Wolf 2012). Additionally, in an emerging market, better corporate governance benefits firms due to wider access to obtain financing, lower of cost capital, better performance and other favourable treatment of all stakeholders (Claessens & Yurtoglu 2013). Better corporate governance is also associated with lower timely share price. Firms with better corporate governance compensate the governance processes with higher transparency. In other words, investors take a longer time to consider the additional information disclosed by the firms with better corporate governance (Beekes et al. 2016).

The relationship between corporate governance and firm performance has been widely studied (Ahn & Shrestha 2013; Bhagat & Bolton 2008; Cheng 2008; Eisenberg, Sundgren & Wells 1998; Klapper & Love 2004; Lin & Lin 2016; Mangena, Tauringana & Chamisa 2012; Outa & Waweru 2016; Owusu & Weir 2016; Pathan & Faff 2013; Waelchli & Zeller 2013; Yermack 1996). Empirical evidence on the relationship between corporate governance characteristics and firm performance is summarised in Appendix B. Firms with lower corporate governance in developing countries have a higher debt ratio to total assets. Corporate governance at firm level and debt seem to substitute since firms with better governance can easily issue debt, or firms with better prospect on investment can improve their corporate governance through debt issuing (Friedman, Johnson & Mitton 2003). Better governance is associated with better current and future performance (Bhagat & Bolton 2008; Klapper & Love 2004; Outa & Waweru 2016) and free cash flow (Lin & Lin 2016). Moreover, corporate governance manages firm performance in severe political and economic crisis (Mangena, Tauringana & Chamisa 2012). Management forecast also tends to be generated by firms with an effective governance mechanism, especially when they face bad news. Firms with better governance have less information asymmetry between management and firm shareholders due to better disclosures (Karamanou & Vafeas 2005).

Based on the above literature, this study develops the following Hypothesis (H_2) on the relationship between corporate governance characteristics and firm performance:

H_2: There is a significant positive relationship between corporate governance characteristics and firm performance

Indonesia adopts the two-board system, which separates the management function in the BOD and the supervisory and advisory function in the BOC. Corporate governance in Indonesia related

to this study is discussed in Chapter 2. Following National Committee on Governance (2006), Law 40/2007 Limited Liability Companies and Daniri (2014), this study addresses several characteristics of corporate governance related to the two board system: 1) size of the BOD, size of the BOC and total size of the BOD and BOC; 2) the independence of the BOC; 3) the committees established in the BOC; 4) size of the audit committee; and 5) the expertise in finance and/or accounting of audit committee. The empirical evidence and hypotheses development related to the relationship between characteristics of corporate governance and firm performance are described in the following.

The board of the firm has a positive influence on firm performance (Adams, JC, Nishikawa & Rao 2016; Arora & Sharma 2016; Chauhan, Lakshmi & Dey 2016; Das & Dey 2016; Jameson, Prevost & Puthenpurackal 2014; Owusu & Weir 2016). The board of the firm, as one of the corporate governance mechanisms, has many dimensions such as size of board, the independence, tenure and age of the board directors, and compensation plan and share ownership of the board members. Previous studies find that size of the board of firm has positive relationship with firm performance (Arora & Sharma 2016; Beiner et al. 2006; Das & Dey 2016; Jameson, Prevost & Puthenpurackal 2014). The size of board is found to have a positive influence on the probability of updating management's earnings forecast (Karamanou & Vafeas 2005). The issuance of management's earnings forecast is a practice of voluntary disclosure in order to achieve effective corporate governance. Board members could provide better governance mechanisms due to their monitoring function on the quality of management's financial disclosure. Thus, a larger size of board could result in higher probability of high-quality disclosure, including the updating of management's earnings forecast (Karamanou & Vafeas 2005).

Mangena, Tauringana and Chamisa (2012) examine the relationship between the size of board and firm performance in a political and economic crisis or after the presidential election and reveal positive association in both. In Zimbabwe, larger board size is found to be necessary for a firm to face threats, in particular after the election of the president (Mangena, Tauringana & Chamisa 2012). Mangena, Tauringana and Camisa (2012) also find that the appointed members of board are politically connected. A larger size of board with diverse background contributes to effective decision making and then increases firm performance (Arora & Sharma 2016).

In China, size of the BOC is found to have positive relationship with the probability of firm performance persistence (Haß, Johan & Schweizer 2016). In the study of Haß, Johan and Schweizer (2016), the performance persistence are measured with accounting-based performance: ROA in a year ahead and the sum of ROAs in three consecutive years ahead. More commissioners would allow the firm to increase monitoring efforts, which results in performance persistence (Haß, Johan & Schweizer 2016). In addition, larger size of firm's board is also found to

reduce earnings management (Khalil & Ozkan 2016) and bank inefficiency (Titova 2016). Similarly, a study in firms with the two-board system reveals that a large size of BOD and BOC reduces earnings management (Jatiningrum, Abdul-Hamid & Popoola 2016).

In Nordic countries (Norway, Sweden, Denmark, Finland and Iceland) and Southern European countries (Spain, France, Greece, Italy and Portugal), the size of the board is found to have a positive influence in determining the expertise of the board members and independence of the board of the firm (Lending & Vähämaa 2017). A larger size of board will increase the number of independent board members as well as the board expertise in the forms of experience, education and professional certification (Lending & Vähämaa 2017).

The size of the board is also found to have negative relationship with firm performance (Dah 2016; Duru, Wang & Zhao 2013; Eisenberg, Sundgren & Wells 1998; Huyghebaert & Wang 2012; Liang, Xu & Jiraporn 2013; Malik & Makhdoom 2016; Pathan & Faff 2013; Sun, J & Liu 2014; Wang, L 2015; Yermack 1996), the market reaction to forecast (Karamanou & Vafeas 2005), variability in firm performance (Cheng 2008), financial transparency and disclosure (Torchia & Calabro 2016) and the firm's risks (Mathew, Ibrahim & Archbold 2016). Larger board size could lead to coordination and communication problems as well as agency problem (Cheng 2008). Boards with seven or eight members tend to perform effectively and can easily be controlled by the leader. As board size increases above this level, coordination and communication problems could arise such as difficulties in arranging board meetings and generating consensus. These problems would result in less efficiency and slower decision making, and lead to lower firm performance (Jensen 1993). The agency problem also appears due to board behaviour that does not perform in the firm's interest (Jensen & Meckling 1976). Pathan and Faff (2013) find that large boards in the banking industry become inefficient or result in lower performance due to complicated organisational structure and merger and acquisition that take place (Pathan & Faff 2013). In other studies, board size is found not to influence firm performance (Farag & Mallin 2016; Liu, Y, Wei & Xie 2014; Sun, J & Liu 2014; Wintoki, Linck & Netter 2012; Zhu et al. 2016), attracting foreign investors (Miletkov, Poulsen & Wintoki 2014), economic, environmental and social sustainability performance (Hussain, Rigoni & Orij 2016), as well as research and development intensity (Guldiken & Darendeli 2016).

Most of the studies examine the size of firm's board as a single variable, which is mainly found in studies of corporate governance of firms that adopt the one board system. This study contributes to the research of corporate governance by separately examining the relationship of the size of the BOD and BOC and firm performance. Based on the empirical studies, board size is found to have positive and negative relationship with firm performance. This study expects that size of the BOD and BOC (separately and added together) have positive relationship with firm performance, rather

than negative relationship with firm performance. In the Indonesian context, the positive influence of boardsize (BOD size or BOC size or both added together) on firm performance dominates the negative effect for the following reasons. According to the National Committee on Governance (2006), the number of BOD members should be in line with the firm's operational complexity in order to optimise the effectiveness of decision making. More directors in the BOD may contribute to more effective decision making. Each of the directors could focus on their specific area of expertise when management functions are distributed among the BOD members and are well-coordinated by the president director. Similarly, the number of BOC members should be adapted to the firm's operational complexity with regard to the effectiveness of decision making (National Committee on Governance 2006). The size of the BOC could also influence firm performance. More commissioners in the BOC may contribute better supervisory and advisory functions, which may lead to better management, and hence better firm performance. Supervisory functions could be distributed among the commissioners in the BOC in accordance with their capabilities and be coordinated by the president commissioner. The members of the BOC can also assist the members of the BOD by offering advice.

Hence, this study elaborates Hypothesis 2 into detailed hypotheses related to the size of the BOD, the size of the BOC and total size of the BOD and BOC as follows:

H_{2a} : *There is a significant positive relationship between size of the BOD, size of the BOC, and total size of the BOD and BOC and firm performance*

With regards to the independence of the firm's board members, it is found to have a positive effect on firm performance (Farag & Mallin 2016; Karamanou & Vafeas 2005; Liang, Xu & Jiraporn 2013; Liu, Y, Wei & Xie 2014; Malik & Makhdoom 2016; Wang, L 2015; Zhu et al. 2016) and environmental and social sustainability performance (Hussain, Rigoni & Orij 2016). Higher independence of the board members also increases the probability of making and updating management's earnings forecast, especially good news (Karamanou & Vafeas 2005). Higher independence of the board in monitoring enables it to increase the quality of financial statements and reduce information asymmetry between foreign and domestic investors (Miletkov, Poulsen & Wintoki 2014). Higher independence of the board also increases the firm's transparency (Armstrong, Core & Guay 2014; Torchia & Calabro 2016). Independent board members need transparency to carry out their supervisory and advisory roles. The relationship between an independent board and the firm's transparency is influenced by the independence of the audit committee, the information processing costs, managerial entrenchment and changes in board members and independent directors (Armstrong, Core & Guay 2014). An independent board member offers independent considerations and decisions on issues related to firm's activities (Das & Dey 2016) and provide better monitoring of the firm management, and then contribute to reduce

earnings management (Klein 2002; Park, YW & Shin 2004), inefficiency (Titova 2016) and expense ratios (Kryzanowski & Mohebshahedin 2016).

On the other hand, board independence is also found to have negative relationship with firm performance (Arora & Sharma 2016; Bhagat & Bolton 2008; Pathan & Faff 2013; Sun, J & Liu 2014). The negative association between board independence and firm performance is also found in a recession period (Dah 2016). The negative influence of board independence on firm performance may be as a result of lack of independence of the board. In developing countries such as India, independent board members are often selected by the management or majority shareholders or the scarcity of persons or the ideal candidates who are appropriate for independent board positions result in many independent board members holding similar positions in several firms, and consequently his or her monitoring and decisions may not be truly independent and they may be influenced by expectations placed upon them (Arora & Sharma 2016).

The misclassification of independent directors (non-strictly independent directors) could also result in a negative effect on firm performance (Crespí-Cladera & Pascual-Fuster 2014). The presence of non-strictly independent directors may allow the rise of uncontrollable agency problem that is detrimental for the firm (Crespí-Cladera & Pascual-Fuster 2014). Cavaco et al. (2017) reveal that board independence has an ambiguity effect on firm performance, with positive and negative effects. This ambiguity effect appears related to two opposing aspects, namely the director nomination process and board functioning. Board independence results in positive effect on firm performance when individual ability is considered. In contrast, the independence of firm's board has negative effect on firm performance when independent board members have less information compared to affiliated directors (Cavaco et al. 2017).

In a firm with highly concentrated ownership and a scarcity of ideal candidates for independent director, the addition of independent directors may not improve the firm's governance practices such as monitoring earnings management (Park, YW & Shin 2004). Other researchers reveal that board independence does not influence firm performance (Adams, M & Jiang 2016; Masulis & Mobbs 2014; Sun, J & Liu 2014), performance of family controlled firms and founder controlled firms (Jameson, Prevost & Puthenpurackal 2014), earnings management (Khalil & Ozkan 2016; Wan Mohammad, Wasiuzzaman & Nik Salleh 2016), firm risk (Mathew, Ibrahim & Archbold 2016), premium price of the foreign IPO (Li, W, Bruton & Filatotchev 2016), mutual fund performance (Adams, JC, Nishikawa & Rao 2016), innovation performance (Chen, C-J et al. 2016), performance persistence (Haß, Johan & Schweizer 2016) and research and development (Balsmeier, Fleming & Manso 2017).

The independence of the BOC is also found to be effective in reducing earnings management (Jatiningrum, Abdul-Hamid & Popoola 2016). So far, there is limited evidence that examines the independence of the BOC.

Based on the empirical evidence above, though independence of the board provides positive or negative effects on firm performance, the positive effects of the independence of board are found to be more than the negative effects. In the Indonesian context, Indonesia is classified as an emerging market characterised by highly concentrated ownership, a weak legal environment and lower investor protections. Independence of the BOC is expected to have positive impact on firm performance. The requirements of an independent commissioner are expected to allow the independent commissioner to supervise and advise the BOD in managing the firm without being influenced by others for the interest of the firm. The existence of independent commissioners is expected to provide better corporate governance by enabling them to perform their supervisory and advisory functions. Better supervisory and advisory functions of BOC can reduce the practices of firm management that are not in the interests of the firm. It is also expected that the functions of an independent commissioner can improve investor protection, especially minority shareholders, by providing an independent supervisory function on the BOD. In highly concentrated ownership, the existence of an independent commissioner is expected to represent the minority interest. Hence, this study develops the following detailed Hypothesis 2 related to the independence of the BOC:

H_{2b} : *There is a significant positive relationship between the independence of the BOC and firm performance*

In relation to board committees, Menon and Williams (1994) find that board committees can enhance the efficiency of board's functions and thus improve firm performance (Farag & Mallin 2016). Conversely, the number of monitoring committees is also found to have negative relationship with firm performance measured with Tobin's Q, EVA and ROA (Upadhyay, Bhargava & Faircloth 2014). It is also found that board committees do not have influence on short term firm performance persistence (Haß, Johan & Schweizer 2016).

According to Law 40/2007 Limited Liabilities Company, BOC can establish committees to support them in carrying out the supervisory and advisory duties. Committees established in the BOC can be in the form of audit committee, nomination and remuneration committee, corporate governance committee (Forum for Corporate Governance in Indonesia -; National Committee on Governance 2006), risk policy committee (National Committee on Governance 2006), or other committees depending on the BOC's needs. Each committee should be chaired by a BOC member, and it can appoint one or more experts as members of the committee. Audit committee should be chaired by

an independent commissioner. Since the tasks of the committees established in the BOC are to assist the BOC, it is expected that the supervisory and advisory functions of the BOC would be better. More committees established in the BOC should enable better supervisory and advisory functions, which result in better firm performance. Therefore, the following detailed Hypothesis 2 related to the committees established in the BOC is developed:

H_{2c} : *There is a significant positive relationship between the committees established in the BOC and firm performance*

An audit committee is one of the committees established in the BOC. Audit committee is expected to reduce any less effective and inefficient behaviour of firm's management. The demand of monitoring the financial reporting process and quality of audit committee measured with financial expertise are positively influenced by the compensation paid to audit committee members (Engel, Hayes & Wang 2010). The effectiveness of audit committee can be achieved when the audit committee is fully independent (Bronson et al. 2009). A high independence of audit committee enables it to increase firm performance (Choi, Han & Lee 2014) as well as to reduce earnings management (Inaam & Khamoussi 2016; Khalil & Ozkan 2016).

Size of the audit committee is found to have a positive relationship with the financial transparency and disclosure of the firm. Audit committee contributes to the monitoring mechanism to improve the information quality, oversight the preparation and communication of financial information and ensure the clarity and disclosure of such information (Torchia & Calabro 2016). However, size of audit committee is also shown to have a negative impact on market reaction to a forecast (Karamanou & Vafeas 2005) and financial reporting quality (Kusnadi et al. 2016). Increasing the number of audit committee members may also be detrimental to financial reporting quality (Kusnadi et al. 2016). Sun and Liu (2014) reveal that the size of audit committee does not have influence on firm performance, but it moderates the relationship between risk taking and market firm performance.

CMFISA (currently IFSA) requires each publicly listed firm to have an audit committee in the BOC. It also requires that audit committee has at least three members consisting of an independent commissioner and other parties from outside the firm. In addition, the audit committee should be chaired by an independent commissioner. The high requirement for audit committee members in integrity, capability, knowledge, experience, communication skills, continually improving their competence through education and training, and independence should provide better support to the BOC in carrying out the supervisory and advisory duties. It is expected that more members in audit committee could provide better assistance to the BOC and result in better BOC functions.

Improved BOC supervisory and advisory functions could lead to better firm performance. This study develops the following detailed Hypothesis 2 related to the size of audit committee:

H_{2d} : There is a significant positive relationship between the size of audit committee and firm performance

The effectiveness of audit committee is developed through four processes: 1) the background of audit committee members; 2) ceremonial aspects of audit committee meetings; 3) reflective interpretations of substantive practices and activities taking place during audit committee meetings; and 4) reflective understandings of informal practices taking place outside meetings (Gendron & Bédard 2006). Thus, the background of audit committee members such as their expertise in financial and/or accounting contributes to the effectiveness of audit committee.

The presence of financial expertise in the audit committee enhances firm performance (Upadhyay, Bhargava & Faircloth 2014), mitigates opportunistic behaviour of management (Choi, Han & Lee 2014) and assists the firm's board to carry out their duties (Upadhyay, Bhargava & Faircloth 2014). The expertise of audit committee also has positive relationship with the probability of updating management's earnings forecast, accuracy of management's earnings forecast, especially for good news, and the market reaction to a forecast. More financial expertise in audit committee could provide more effective corporate governance, which results in higher probability for the management to update the management's earnings forecast and produce accurate earnings forecast (Karamanou & Vafeas 2005). The expertise in finance and/or accounting of audit committee members, together with strong corporate governance, enhances the monitoring role of audit committee on the independence of auditor (Albring, Robinson & Robinson 2014) and results in better financial reporting quality (Kusnadi et al. 2016), curtails managers' incentives to influence the firm's disclosure practices and analysts' forecasting process (Carol Liu, Tiras & Zhuang 2014) decreases earnings management activities (Inaam & Khamoussi 2016) and decreases earnings management activities (Inaam & Khamoussi 2016).

In contrast, audit committee expertise is also found to have a negative impact on the probability of management's earnings forecast precision. Less expertise in the audit committee is more likely to provide earnings forecast precision (Karamanou & Vafeas 2005). Audit committees with more financial expertise are less likely to tolerate managers who ignore material miss-statements (Keune & Johnstone 2012).

Erkens and Bonner (2013) reveal that the appointment of finance and accounting experts as audit committee and board members are negatively influenced by the firm's status. Firms with higher status tend to have lower probability of appointing audit committee members, who are finance and

accounting experts, because typical finance and accounting experts (for example, CFOs and retired audit partners) are of lower director status (board seats, trusteeships, social club memberships and elite education) than other types of directors. The demand for expertise in finance and accounting of audit committee declines as the firm's status increases. Firms with higher status have economic and social abilities to attract board members with higher status, including finance and accounting experts with higher status. However, the supply of finance and accounting experts with higher status is scarce. The supply scarcity forces the higher status firms to appoint a CFO or retired audit partner to be the member of audit committee. Several factors influence the probability of the appointment of finance and accounting experts to be a member of audit committee, such as the existence of complex accounting or accounting problems (Erkens & Bonner 2013). The financial expertise of audit committee is also revealed to not have an influence on firm performance (Sun, J & Liu 2014) and magnitude of the audit fees (Karim, Robin & Suh 2016).

Basically, members of the audit committee should have a minimum requirement in understanding financial statements, the operation of firm's business (especially that related to service or listed firm business activities), audit process, risk management strategies and practices and regulations in the capital market. CMFISA requires the audit committee should also have at least one member with a finance or accounting education background. Those requirements are needed to carry out the audit committee tasks, which relate to financial reporting such as: 1) reviewing the financial information to be issued by the firm or the publicly listed firm concerned to the public and the authorities; 2) providing recommendations to the BOC concerning the appointment of external auditor (Capital Market and Financial Institution Supervisory Agency 2012); 3) overseeing the external audit coverage; 4) reviewing accounting policies and policy decisions; 5) examining the financial statement, including interim and annual financial statements, auditors opinion and management letters (Forum for Corporate Governance in Indonesia -); 6) providing independent opinion in the case of disagreement between management and the accountant on the services provided; 7) reviewing any complaint related to accounting process and financial reporting of the firm; and 8) maintaining the confidentiality of documents, data and information of the firm (Capital Market and Financial Institution Supervisory Agency 2012).

Those capabilities are also needed to perform other audit committee tasks related to corporate governance and internal controls. In addition, if the firm or publicly listed firm concerned does not have risk monitoring functions in the BOC, they are also needed to review the implementation of risk management activities by the BOD (Capital Market and Financial Institution Supervisory Agency 2012; Forum for Corporate Governance in Indonesia -). Thus, more accounting and/or financial expertise in the audit committee would provide better audit committee performance in supporting the BOC, better BOC performance, and better firm performance. This study develops

the following detailed Hypothesis 2 related to the expertise in finance and/or accounting of the audit committee:

H_{2e} : *There is a significant positive relationship between the expertise in finance and/or accounting of the audit committee and firm performance*

3.4.3 Empirical Evidence on the Relationship between RPTs and Characteristics of Corporate Governance on Firm Performance

Studies on corporate governance and its relationship with RPTs in general show that they have a negative relationship (Black et al. 2015; Chauhan, Lakshmi & Dey 2016; Yeh, Shu & Su 2012). In firms with higher cash flow rights, which is reflected by a positive expropriation risk index, better governance leads to lower value loss from RPTs. Corporate governance practices also lead to better RPTs pricing, moderates the effect of RPTs on firm value (Black et al. 2015) and future performance (Chauhan, Lakshmi & Dey 2016) and estimates higher sensitivity of the firm's profitability to industry profitability (Black et al. 2015).

In China, firms with weaker governance practices, as reflected in high RPTs (RPTs as an inverse form of the quality of corporate governance), have higher abnormal returns compared to firms with stronger governance practices (Berkman, Cole & Fu 2010). The presence of corporate governance in the form of ownership by board members enables a firm to reduce tunneling through non-operational fund occupancy, but a similar relationship is not found for size of the board and independence of the board (Jiang, G, Rao & Yue 2015). In Korea, RPTs within a business group slightly decreased after the Asian Financial Crisis in 1997 as a result of the improvement in corporate governance practices and independence of business group members (Kim, Kim & Lee 2015).

A variety of characteristics of a firm's board, including board compensation, size of the board, and independence of the board have been used in examining the relationship with RPTs. Board compensation could encourage CEO performance. Better compensation of board members leads to their better performance, including controlling RPTs. Empirical results show that board compensation has positive and negative impacts on RPTs. Board compensation, in the form of CEO stock options, is found to have a significant positive influence on RPTs executives, while CEO ownership is found to have a significant positive effect on RPTs total number and RPTs executives (Gordon, Henry & Palia 2004). In contrast, board compensation, in the form of fees to non-executive board members, has a significant negative impact on RPTs total number, RPTs executives and RPTs non-executive board members. Similar effects are seen in the relationship

between stock provided to directors and RPTs total number and RPTs executives (Gordon, Henry & Palia 2004).

Size of the firm's board provides a positive impact on RPTs (Gordon, Henry & Palia 2004; Nekhili & Cherif 2011; Wang, L 2015). Firms with larger boards seem to have higher RPTs. Size of a firm's board has significant positive impact on RPTs total number, RPTs executive and RPTs non-executive board members (Gordon, Henry & Palia 2004). In addition, size of the BOD has significant positive association with RPTs performed by the firm and its shareholders, managers, directors and affiliated firms (Nekhili & Cherif 2011) and RPTs purchases of goods and services (Wang, L 2015).

Empirical studies find that independence of the board provides negative and positive relationship with RPTs. Independence of board is found to have a significant negative relationship with transfer price and earnings management through RPTs sales (Lo, Agnes W.Y., Wong & Firth 2010). Independence of the board also has negative association with operating cash outflows to staff and related suppliers (Gallery, Gallery & Supranowicz 2008) and RPTs purchases of goods and services (Wang, L 2015). Independent directors are found to be able to function without being influenced by others. The existence of independent directors leads to lower RPTs.

Previous studies also show that independent directors have not reduced or lowered RPTs that have potential in expropriation. It is found to have a positive relationship with RPTs, mostly RPTs with shareholders, managers and directors (Nekhili & Cherif 2011). In addition, independent directors that are politically connected contribute to RPTs purchases of goods and services. Politically connected independent directors provide an easy access to government. Since politically connected independent directors are appointed by the controlling shareholders, they tend to accommodate controlling shareholders (Wang, L 2015).

With regard to audit committee, the existence of such a committee is found to have a negative relationship with RPTs. The existence of audit committee is also found to moderate the expropriation through RPTs purchases and RPTs sales of assets. The presence of audit committee leads firms to get lower prices when they undertake asset acquisition and obtain higher prices when they deal in the assets disposals (Cheung et al. 2009). Nekhili and Cherif (2011) find contrast results for the association between audit committee and RPTs, where there is a positive relationship between audit committee and RPTs that have potential in expropriation such as RPTs with shareholders, managers and directors.

Lo et al. (2010) could not find evidence that audit committee influences RPTs. They show that audit committee has insignificant negative effect on the transfer price through RPTs sales and

insignificant positive effect on earnings management through RPTs sales. Lo et al. (2010) also show that the financial expertise in the audit committee provides significant negative influence on the earnings management through RPTs sales, although it has insignificant negative relationship with manipulation transfer price through RPTs sales.

The third specific objective of this study is to examine the combined effects of RPTs and corporate governance on firm performance. Based on the literature as discussed in 3.4.1 and 3.4.2, RPTs and corporate governance characteristics have relationship with firm performance. The effects of RPTs on firm performance can be positive or negative, while the effect of corporate governance on firm performance is mostly positive. This study develops Hypothesis 3 related to the combined effects of RPTs and corporate governance on firm performance as follows:

H_3 : *There is a significant positive effect of RPTs on firm performance while controlling each characteristic of corporate governance and there is a significant positive effect of characteristic of corporate governance while controlling each type of RPTs*

This study addresses several types of RPTs, including: 1) total size of RPTs; 2) RPTs based on the nature of transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); 3) RPTs based on the status of related party (RPTs person and RPTs entity); and 4) sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders, RPTs associates and joint firms, and RPTs other affiliates). The characteristics of corporate governance employed in this study are: 1) size of the BOD, size of the BOC, and total size of the BOD and BOC; 2) the independence of the BOC; and 3) the committees established in the BOC. Therefore, Hypothesis 3 is further broken down as follows:

H_{3a} : *There is a significant positive effect of total size of RPTs on firm performance while controlling each characteristic of corporate governance*

H_{3b} : *There is a significant positive effect of RPTs based on the nature of transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities) on firm performance while controlling each characteristic of corporate governance*

H_{3c} : *There is a significant positive effect of RPTs based on the status of related party (RPTs person and RPTs entity) on firm performance while controlling each characteristic of corporate governance*

H_{3d} : *There is a significant positive effect of RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) on firm performance while controlling each characteristic of corporate governance*

H_{3e} : *There is a significant positive effect of size of the BOD, size of the BOC, and total size of the BOD and BOC on firm performance while controlling each type of RPTs*

H_{3f} : *There is a significant positive effect of the independence of the BOC on firm performance while controlling each type of RPTs*

H_{3g} : *There is a significant positive effect of the committees established in the BOC on firm performance while controlling each type of RPTs*

The fourth specific objective of this study is to examine the interaction effects of corporate governance characteristics and RPTs on firm performance. Under a purely economic or propping motive, the relationship of RPTs and firm performance is expected to be significant positive. More RPTs will have the impact of higher firm performance. Under the tunneling motive, the impact of RPTs (i.e. RPTs lending) on firm performance is expected to be significant negative. More RPTs (RPTs lending) will result in lower firm performance. Meanwhile, the corporate governance characteristics are expected to have positive effects on firm performance. By implementing corporate governance, firm performance is expected to increase.

In Indonesian context where board is separated into BOD and BOC, the function of BOD and the function of BOC can provide better influence on firm performance. Then, the interaction effects of corporate governance characteristic and RPTs are expected to reduce the effects of RPTs on firm performance, either positive effects or negative effects, and especially the negative effects of RPTs. More BOD members in the board structure are expected to better manage the RPTs rather than less BOD members. Each BOD member can be assigned to manage a specific type of RPTs or several of RPTs to provide for better governance of RPTs. Similarly, more BOC members is expected to result in better supervisory and advisory functions on the management of RPTs that in the end will decrease the negative effects of RPTs, especially RPTs under the tunneling or propping motive. Similar impact is expected from the other characteristics of corporate governance, such as boardsize, independence of BOC, and number of committees in the BOC.

With regard to RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) which have not been explored yet, this study expects that the characteristics of corporate governance (size of BOD, size of BOC, size of board, independence of BOC and number of committees in the BOC) will moderate the relationship between those RPTs and firm performance, in short-term performance or long-term performance or both short-term and long-term performance. Therefore, this study develops the following Hypothesis 4:

H_4 : *The relationship between RPTs and firm performance is moderated by the characteristics of corporate governance*

Since this study addresses several types of RPTs, Hypothesis 4 is detailed in the following specific hypotheses:

H_{4a} : *The relationship between total size of RPTs and firm performance is moderated by the characteristics of corporate governance*

H_{4b} : *The relationship between RPTs based on the nature of transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities) and firm performance is moderated by the characteristics of corporate governance*

H_{4c} : *The relationship between RPTs based on the status of related party (RPTs person and RPTs entity) and firm performance is moderated by the characteristics of corporate governance*

H_{4d} : *The relationship between sub categories of RPTs entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) and firm performance is moderated by the characteristics of corporate governance*

3.5 Conceptual Framework

This study has four specific objectives. Based on the literature, which includes theoretical and empirical studies, this study develops four hypotheses to achieve those four objectives. Hence, the conceptual framework of this study is as follows. Contracting theory and stakeholder theory could explain business activities related to RPTs, while agency theory and management theory describe the corporate governance characteristics and how to minimise the negative impact of RPTs to firm performance. Next, four phases of analysis are developed related to the four specific objectives of this study. Firstly, the relationship between RPTs and firm performance is examined. Several types of RPTs are addressed, including: 1) total size of RPTs; 2) RPTs based on the nature of transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); 3) RPTs based on the status of related party (RPTs person and RPTs entity); and 4) sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates). With regard to firm performance, this study addresses accounting-based firm performance (ROA and CFO) and market-based firm performance (Tobin's Q).

Secondly, this study examines the relationship between the characteristics of corporate governance and firm performance. Since Indonesia has adopted the two board system for board governance, this study examines the impact of the size of the BOD and size of the BOC separately. For comparison purposes, this study also addresses total size of the BOD and BOC. Thus, the characteristics of corporate governance in this study are: 1) size of the BOD, size of the BOC, and total size of the BOD and BOC for comparison purposes; 2) the independence of the BOC; 3) the committees established in the BOC; 4) size of the audit committee; and 5) expertise in finance and/or accounting of the audit committee. Similarly, firm performance addressed in this study is accounting-based firm performance (ROA and CFO) and market-based firm performance (Tobin's Q).

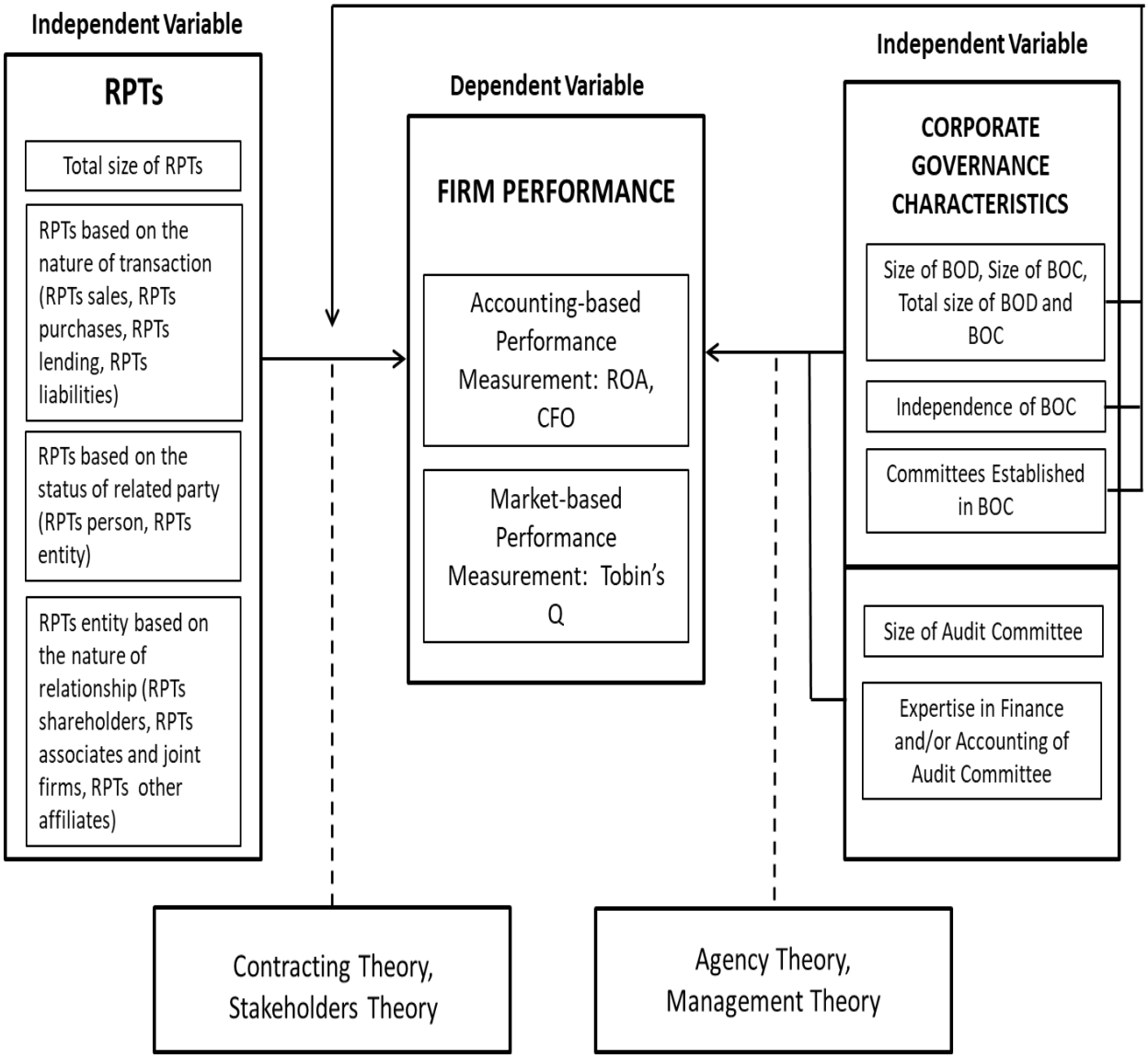
Thirdly, the combined effects of corporate governance characteristics and RPTs on firm performance are observed. The types of RPTs addressed in this study are: 1) total size of RPTs; 2) RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); 3) RPTs based on the status of related party (RPTs person and RPTs entity); and 4) sub-categories of RPTs entity based on the nature of the relationship (RPTs shareholders,

RPTs with associates and joint firms and RPTs other affiliates). The characteristics of corporate governance in this study are: 1) size of the BOD, size of the BOC, and total size of the BOD and BOC for comparison purposes; 2) the independence of the BOC; and 3) committees established in the BOC. Firm performance addressed in this study is accounting-based firm performance (ROA and CFO) and market-based firm performance (Tobin's Q).

Fourthly, the interaction effects of corporate governance characteristics and RPTs on the relationship between RPTs and firm performance are examined. The types of RPTs addressed in this study are: 1) total size of RPTs; 2) RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); 3) RPTs based on the status of related party (RPTs person and RPTs entity); and 4) sub-categories of RPTs entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates). Similar to the fourth objective, the characteristics of corporate governance in this study are: 1) size of the BOD, size of the BOC, and total size of the BOD and BOC; 2) the independence of BOC; and 3) committees established in the BOC. Firm performance addressed in this study is accounting-based firm performance (ROA and CFO) and market-based firm performance (Tobin's Q).

The relationship of RPTs, corporate governance characteristics and firm performance and how the characteristics of corporate governance would influence the relationship between RPTs and firm performance are presented in Figure 3.1.

Figure 3.1 Conceptual Frameworks for the Relationship of RPTs and Corporate Governance Characteristic on Firm Performance



3.6 Summary of the Chapter

A company undertakes RPTs for different reasons. The three main reasons are: 1) propping up, to manage earnings or to prop up firm performance; 2) tunneling, to divert or relocate firm's resources or assets; and 3) purely economic reasons. Contracting theory and stakeholder theory explain business activities related with RPTs while agency theory and management theory describe how to manage the firm, particularly in relation to RPTs. Some studies on RPTs provide evidence that RPTs have relationship with firm performance, either positively or negatively.

Corporate governance enhances firm performance. Corporate governance characteristics such as size of the firm's board, independence of the firm's board, board's committees, size of the audit committee and expertise in financial and/or accounting of the audit committee have positive effects on firm performance, even though in some studies they are also found to have negative influence on firm performance. In addition, corporate governance through monitoring mechanisms effectively moderates the relationship between RPTs and firm performance. This study will examine the relationship of RPTs and firm performance, in short-term performance and long-term performance and the moderating roles of the characteristics of corporate governance on that relationship, especially in the relationship of RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms, and RPTs other affiliates) on firm performance measured with accounting based performance, which relates to short-term performance (ROA and CFO), and market based performance, which relates to long-term performance (Tobin's Q).

The methodology and variable measurements used in this study are reported and discussed in the following chapter.

CHAPTER 4

RESEARCH METHODOLOGY AND VARIABLE MEASUREMENTS

4.1 Introduction

The primary objective of this study is to examine the relationship between RPTs and firm performance, and the effects of the characteristics of corporate governance, as observed in Indonesian listed firms, on that relationship. The main objective is elaborated into four specific objectives. Besides discussing the objectives of this study, this chapter also discusses the methodology, research design, sample selection and data collection, variable measurements, data analysis, regression models and statistical validity test used to test the hypotheses to achieve the objectives of this study.

4.2 Research Objectives

The aim of this study is to examine the relationship between RPTs and firm performance, and the effects of the characteristics of corporate governance as observed in Indonesian listed firms on that relationship. This study employs two measurements for firm performance: accounting-based measurement of firm performance, which also show a short-term performance (ROA and CFO), and market-based measurement of firm performance, which also use as a proxy of a long-term performance (Tobin's Q). Firm performance as dependent variables is regressed with RPTs and corporate governance characteristics as independent variables. In addition, several firm characteristics are considered as control variables.

The first specific objective of this study is to examine the relationship between RPTs and firm performance. This study addresses several types of RPTs, including: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction, namely RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES); 3) RPTs based on the status of related party, namely RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). So far, the third type of RPTs in this study, RPTs based on the status of related party: person/individual and entity have not been investigated yet. This study also examines the sub-categories of RPTs entity (RPTENTITY) based on the nature of the relationship as follows: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). The firm

performance use in this study include accounting based performance, which shows a short-term performance (ROA and CFO), and market based performance, which shows a long-term performance (Tobin's Q).

The second specific objective of this study is to examine the relationship between the characteristics of corporate governance and firm performance. This study investigates the relationship between the characteristics of corporate governance and firm performance by addressing several characteristics of corporate governance: 1) size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE); 2) the independence of the BOC (INDBOC); 3) the committees established in the BOC (BOCCOM); 4) the size of audit committee (ACSIZE); and 5) the expertise in finance and/or accounting of audit committee (ACEXP). Similar to the first objective, this study applies short-term performance (ROA and CFO) and long-term performance (Tobin's Q).

The third specific objective of this study is to examine the combined effects of RPTs and the characteristics of corporate governance on firm performance. This objective observes the effects of RPTs on firm performance while controlling the characteristics of corporate governance, and the effects of the characteristics of corporate governance on firm performance while controlling the RPTs. To achieve the third specific objective, this study addresses several types of RPTs: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction, namely RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES); and 3) RPTs based on the status of related party, namely RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also investigates the sub-categories of RPTs entity based on the nature of the relationship: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). Several characteristics of corporate governance, namely 1) size of BOD (BODSIZE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE); 2) the independence of BOC (INDBOC); and 3) the committees established in BOC (BOCCOM), are employed to achieve the third specific objective. Similarly, short-term performance and long-term performance are used to achieve the third objective.

The fourth specific objective of this study is to examine the interaction effects of corporate governance characteristics and RPTs on the relationship between RPTs and firm performance, particularly the impact of characteristics of corporate governance on the relationship of RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firm, and RPTs other affiliates) on short-term performance (ROA and CFO) and long-term performance (Tobin's Q). The

types of RPTs, characteristics of corporate governance and firm performance measurements that are addressed to achieve this objective are similar to the fourth specific objective.

4.3 Research Design

This study uses panel data, which combines time series and cross sectional data. According to Andreß, Golsch and Schmidt (2013) and Hsiao (2014), panel data provides some advantages. Firstly, it provides a more accurate model parameter corollary due to the large number of data points, increasing degrees of freedom and decreasing collinearity among independent variables, which could result in the econometric estimates efficiency. Secondly, it provides a higher capacity to construct more realistic behavioural hypotheses. Panel data enables the researcher to analyse economic questions that cannot be addressed by cross-sectional or time series data sets through longitudinal data. Thirdly, it allows dynamic relationships to be revealed, which cannot be estimated by cross-sectional data sets. Fourthly, it allows controlling the effect or bias due to omitted variables. It is normal that not all the determinants of dependent variables are known or there is no measurement if they are known. The effects of unobserved variables could be resolved by employing information on the inter-temporal dynamics and individuality of the firms that are examined. Fifthly, it enables more accurate estimation of individual results. Sixthly, it provides bases for aggregate data analysis, and lastly, it simplifies computation and statistical inference such as non-stationary time series analysis and error measurement.

This study presents descriptive statistics of the sample data, correlation analysis, trend analysis, and multiple regression analysis. Descriptive statistics provide a brief illustration of the data used in this study. Correlation analysis and trend analysis are carried out as preliminary analyses. Correlation analysis is conducted to measure the strength or the degree of association between two variables (Gujarati 2003; Ramsey & Schafer 2013). Trend analysis is performed to look at the dependent and independent variables in the sample over time and to justify the methodology used in data analysis. Multiple regressions are applied to analyse the relationship between one dependent variable and various independent variables with panel data. The relationship between dependent variable and independent variables are hypothesised and predicted based on the previous empirical results and theoretical framework. Hence, this study uses multiple regressions to test the hypotheses.

The first specific objective, which relates to Hypothesis 1 (H_1), is to examine the relationship between RPTs and firm performance. Several types of RPTs are addressed in this study, namely: 1) total size of RPTs; 2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities

(RPTLIABILITIES); and 3) RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also observes the sub-category of RPTs entity based on the nature of the relationship: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). The RPTs are regressed separately and together against firm performance measured with accounting-based performance measurement, which shows a short-term performance (ROA and CFO), and market-based performance measurement, which shows a long-term performance (Tobin's Q).

The second specific objective, which relates to Hypothesis 2 (H_2), is to examine the relationship between the characteristics of corporate governance and firm performance. Several characteristics of corporate governance, which are: 1) size of BOD (BODSIZE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE); 2) the independence of BOC (INDBOC); 3) the committees established in BOC (BOCCOM); 4) the size of audit committee (ACSIZE); and 5) the expertise in financial and/or accounting of audit committee (ACEXP), are separately regressed to firm performance measured with accounting-based performance measurement, which uses to measure a short-term performance (ROA and CFO) and market-based performance measurement, which uses to proxy a long-term performance (Tobin's Q).

The third specific objective, which relates to Hypothesis 3 (H_3), is to examine the relationship of RPTs and characteristics of corporate governance on firm performance. This objective adds together the RPTs and corporate governance characteristics to observe the combined effect of the characteristics of corporate governance and RPTs on firm performance. To achieve the third specific objective, this study examines the effects of RPTs on firm performance while controlling the characteristics of corporate governance, and the effects of the characteristics of corporate governance on firm performance while controlling the RPTs. Several types of RPTs are addressed in this study: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction, namely: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES); and 3) RPTs based on the status of related party, namely: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also addresses the sub-categories of RPTs entity based on the nature of the relationship, namely: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). The characteristics of corporate governance in this study are: 1) size of BOD (BODSIZE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE); 2) the independence of BOC (INDBOC); and 3) the committees established in BOC (BOCCOM). The RPTs variables are separately and combined regressed while the corporate governance characteristics are separately regressed on firm

performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q).

This study is expanded in the fourth specific objective, which relates to Hypothesis 4 (H_4), by adding a moderator variable in the regression. The fourth specific objective looks at the interaction effect of the characteristics of corporate governance and RPTs on the relationship between RPTs and firm performance, especially for RPTs based on the status of related party (RPTs person and RPTs entity) and RPTs with entity based on the nature of relationship (RPTs shareholders, RPTs associates and joint firms, and RPTs other affiliates), which have not been explored yet, on both short-term performance and long-term performance. Several types of RPTs are addressed in this study: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDINGS) and RPTs liabilities (RPTLIABILITIES); and 3) RPTs based on the status of related party, namely RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also investigates sub-categories of RPTs entity based on the nature of the relationship: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). The characteristics of corporate governance in this study include: 1) size of BOD (BODZISE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE); 2) the independence of BOC (INDBOC); and 3) the committees established in BOC (BOCCOM). The RPTs and the interaction effects of the characteristics of corporate governance variables and RPTs are regressed separately and together, while the characteristics of corporate governance are separately regressed on firm performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q).

4.4 Sample Selection and Data Collection

This study uses panel data that consists of balanced and unbalanced panel data sets. The balanced panel data set consists of the same set of sample firm observations over the sample period, while the unbalanced panel data set does not. The balanced panel data is used in the regression analysis of RPTs and firm performance and the characteristics of corporate governance (size of BOD, size of BOC, total size of BOD and BOC and the independence of BOC) and firm performance. The unbalanced panel data set is used in the regression analysis of the corporate governance characteristics (the committees established in the BOC, the size of audit committee, and the expertise in finance and/or accounting of audit committee) and firm performance. In the regression between RPTs and corporate governance characteristics, the unbalanced panel data set is used to analyse the committees established in the BOC, the size of audit committee, and the expertise in finance and/or accounting of audit committee because of the limitation in data availability that result in the sample firm observation not the same, such as data for the committees

established in the BOC year 2007 is not available for ACES, ASRI, DNET and DVLA; year 2008 for DNET and DVLA; year 2009 for DNET. In the case of the size of audit committee, data is not available in year 2007 for ACES, DNET, DVLA; year 2008 for DNET dan DVLA; and year 2009 for DNET. Meanwhile, data for the expertise in finance and/or accounting of audit committee is not available in year 2007 for ACES, APOL, AUTO, BISI, BMTR, CSAP, DART, DNET, DVLA, JKON, MERK, MICE, MLBI, SKLT, and WICO; year 2008 for APOL, BISI, BMTR, CSAP, DART, DNET, DVLA, and SKLT; year 2009 for APOL, BMTR, DART, DNET, DVLA, and SKLT; year 2010 for APOL, and DART; year 2011 for APOL and DART; year 2012 for DART; and year 2013 for DART.

The sample is selected based on the following criteria: 1) the firm must be publicly listed in the Indonesia Stock Exchange from 2007 to 2013; 2) the firm must be categorised as a non-financial firm; 3) the annual reports of the firm must be available from 2007 to 2013; 4) the firm uses IDR currencies in their financial statement; and 5) the firm disclosed RPTs in the audited financial statement and notes of the audited financial statement.

A total of 94 publicly listed firms are used as sample firms in this study, selected as follows. As of 31 December 2007, there are 383 publicly listed firms identified in the Indonesia Stock Exchange. Of these: 31 firms are dropped because they are delisted during 2007 to 2013; 62 financial and insurance firms are excluded; an additional 161 firms are excluded because the annual reports are not completely available from 2007 to 2013; another 24 firms are excluded because they use foreign currency in their financial statement reporting from 2007 to 2013 or in several years during that period; 4 firms are excluded because they have not actively conducted RPTs or were only involved in RPTs for some of the years between 2007 and 2013. After removing the firms with an extreme value of RPTs as outliers, the total of 94 publicly listed firms is arrived at, representing about 24.54% of the Indonesian listed firms in 2007. The results of the sample selection are summarised in Table 4.1. The list of sample firms is presented in Appendix D.

Table 4.1 Results of Sample Selection

Sample Criteria		Number of Firms
Number of firms listed on IDX as 31 December 2007		383
Less:		
(1) Delisted firms	31	
(2) Financial and insurance firms	62	
(3) Firms with incomplete annual reports	161	
(4) Firms with foreign currencies denomination	24	
(5) Firms have not actively seen in RPTs	4	
Firms do not fulfill criteria (1) to (5)		282
Number of firms fulfilling selection criteria		101
Less: Firms considered as outliers		7
Number of firms selected		94
Number of firm-year observations from 2007 to 2013		658

Following the IDX industry classification, the sample firms can be divided into eight industries as presented in Table 4.2. They are: 1) agriculture; 2) basic industry and chemical; 3) consumer goods industry; 4) infrastructure, utilities and transportation; 5) mining; 6) property, real estate and building construction; 7) trade, services and investment; and 8) others. More than 60% of the sample firms are in three main industries, namely: 1) trade, services and investment (35.11%); 2) property, real estate and building construction (24.47%); and 3) infrastructure, utilities and transportation (11.70%).

Table 4.2 Sample Firms Based on Industry Classification

No	Industry	Number of Firms	Percentage
1	Agriculture	6	6.38
2	Basic Industry and Chemical	7	7.45
3	Consumer Goods Industry	8	8.51
4	Infrastructure, Utilities, and Transportation	11	11.70
5	Mining	3	3.19
6	Property, Real Estate and Building Construction	23	24.47
7	Trade, Services and Investment	33	35.11
8	Others	3	3.19
	Total	94	100.00

This study uses secondary data obtained from several sources with different techniques. The RPTs and the cash flows from operations (CFO) data are manually collected from the audited financial statement and notes of audited financial statements from 2007 to 2013. The other financial data are taken from the Osiris database, while the stock price data is taken from yahoo finance website. The characteristics of corporate governance, comprising: 1) size of the BOD, size of the BOC, and total size of the BOD and BOC; 2) the independence of the BOC; 3) the committees established in the BOC; 4) the size of audit committee; and 5) the expertise in financial and/or accounting of audit committee, are manually collected from annual reports and notes of the financial statements from 2007 to 2013.

4.5 Variables Measurement

Measurements of the dependent and independent variables are described in this section. This study uses firm performance and firm income tax expense as dependent variables. The independent variables are RPTs and characteristics of corporate governance. Moreover, this study also employs firm characteristics such as the size of the firm, leverage and the firm growth, as control variables. The definition and measurement of the variables are explained as follows with a summary of these presented in Table 4.3.

Table 4.3 Summary of the Dependent, Independent and Control Variables Definitions and Measurements

Variable	Symbol	Definition	Data Source	Reference
DEPENDENT VARIABLES				
Return on Assets	ROA	Earnings before interest and tax (EBIT) divided by the total assets at the end of the year.	OSIRIS	Devinney, Yip and Johnson (2010), Margaritis and Psillaki (2010), Nekhili and Cherif (2011), Mangena, Tauringana and Chamisa (2012), Mangena et al. (2012)
Cash flows from operation	CFO	The amount of cash flows from operating activities scaled by the total assets at the end of the year	Audited financial statement and OSIRIS	Devinney, Yip and Johnson (2010)
Tobin's Q	Tobin's Q	The sum of the average stock prices in month of April or four month after the financial year end multiplied by the number of outstanding shares and the book value of liabilities scaled by total assets at the end of the year.	OSIRIS, Yahoo finance (stock price), Audited financial statement	Jian and Wong (2003)
INDEPENDENT VARIABLES				
RPTS VARIABLES				
Total size of RPTs	RPTTOTAL	Total amount of transactions with related parties performed by the firm including RPTs sales of goods and/or services, RPTs purchases goods and/or services, RPTs interest revenues, RPTs interest expenses, RPTs sales of fixed assets, RPTs buy fixed assets, RPTs placement, RPT lending, and RPTs liabilities scaled by the total assets at the end of the year	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003), Kang et al. (2014)
RPTs sales	RPTSALES	Total amount of transactions with related parties on sales of goods and/or services performed by the firm scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003); Aharony, Wang and Yuan (2010); Chen, Y, Chen and Chen (2009) Wong, Kim and Lo (2015)
RPTs purchases	RPTPURCHASES	Total amount of transactions with related parties on purchases of goods and/or services, including royalties, fees, and expenses, scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003); Aharony, Wang and Yuan (2010); Chen, Y, Chen and Chen (2009)
RPTs lending	RPTLENDING	Total amount of trade or account receivables, notes receivables, other receivables, due from, and/or any other claims to related parties scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003)
RPTs liabilities	RPTLIABILITIES	Total amount of trade or account payables, notes payables, other payables, due to, loan, and/or any other liabilities to related parties scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003)
RPTs person	RPTPERSON	Total amount of transactions which are undertaken by the firm with person or individual who relates with the firm scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003), ISFAS 7 (Revised 2010)
RPTs entity	RPTENTITY	Total amount of transactions which are undertaken by the firm with	Audited financial statement,	Jian and Wong (2003), ISFAS 7 (Revised

Variable	Symbol	Definition	Data Source	Reference
		entities which relate to the firm scaled by total assets at the end of the year	the notes of audited financial statement, and OSIRIS	2010)
RPTs shareholders	RPTENTITY_SH	Total amount of transactions which are undertaken by the firm with entities which own the firm's shares scaled by total assets at the end of the year	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003), ISFAS 7 (Revised 2010)
RPTs associates and joint firms	RPTENTITY_ASSC	Total amount of transactions which are undertaken by the firm with entities which are the associated firms, joint control firms, joint operations, and/or joint ventures of the firm scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003), ISFAS 7 (Revised 2010)
RPTs other affiliates	RPTENTITY_OAFF	Total amount of transactions which are undertaken by the firm with related entities which are not the firm's shareholders; associated firms, joint control firms, joint operations, and/or joint ventures of the firm scaled by total assets at the end of the year.	Audited financial statement, the notes of audited financial statement, and OSIRIS	Jian and Wong (2003), ISFAS 7 (Revised 2010)
CORPORATE GOVERNANCE CHARACTERISTIC VARIABLES				
Size of the BOD	BODSIZE	The number of directors in the BOD of the firm. The natural logarithm of the number of directors in the BOD of the firm is used in the correlation analysis and regression analysis.	Annual Reports	Yermack (1996); Gordon, Henry and Palia (2004); Cheung, Rau and Stouraitis (2006); Brick and Chidambaran (2010); Wintoki, Linck and Netter (2012); Duru, Wang and Zhao (2013); Upadhyay, Bhargava and Faircloth (2014); and Miletkov, Poulsen and Wintoki (2014), Law 40/2007 Limited Liabilities Company
Size of the BOC	BOCSIZE	The number of commissioners in the BOC of the firm. The natural logarithm of the number of commissioners in the BOC of the firm is used in the correlation analysis and regression analysis.	Annual Reports	
Total size of the BOD and BOC	BOARDSIZE	The number of directors in the BOD of the firm and the number of commissioners in the BOC of the firm. The natural logarithm of the number of directors in the BOD of the firm and the number of commissioners in the BOC are used in the correlation analysis and regression analysis.	Annual Reports	
Independence of the BOC	INDBOC	The number of independent commissioners in the BOC scaled by the size of BOC of the firm.	Annual Reports	Duru, Wang and Zhao (2013); Jameson, Prevost and Puthenpurackal (2014); Miletkov, Poulsen and Wintoki (2014)
Committees established in the BOC	BOCCOM	The number of committees established in BOC scaled by the size of the BOC of the firm.	Annual Reports	Upadhyay, Bhargava and Faircloth (2014)
Size of audit committee	ACSIZE	The number of members in audit committees of the firm. The natural logarithm of ACSIZE is used in the correlation and regression analysis.	Annual Reports	Karamanou and Vafeas (2005); Torchia and Calabro (2016)
Expertise in finance and/or accounting of audit committee	ACEXP	The number of members in audit committee who have education and/or experience background in finance and/or accounting scaled by the size of audit committee.	Annual Reports	Upadhyay, Bhargava and Faircloth (2014); Karim, Robin and Suh (2016)

Variable	Symbol	Definition	Data Source	Reference
CONTROL VARIABLES				
Size of the firm	FSIZE	The total assets at the end of the year. The natural logarithm of total assets is used in the correlation and regression analysis.	OSIRIS	Jian and Wong (2003); Berkman, Cole and Fu (2009); Cheung, Jing, et al. (2009); Chen, Y, Chen and Chen (2009); Brick and Chidambaran (2010); Jian and Wong (2010); Kohlbeck and Mayhew (2010); Lei and Song (2011); Peng, Wei and Yang (2011); Francis, Hasan and Wu (2012); Yeh, Shu and Su (2012); Jiang, F, Huang and Kim (2013); Jameson, Prevost and Puthenpurackal (2014); Jiang, G, Rao and Yue (2015);Owusu and Weir (2016); and Ullah (2017).
Leverage of the firm	LEV	The total liabilities scaled by the total assets at the end of the year	OSIRIS	Jian and Wong (2003); Coles, Daniel and Naveen (2008); Chen, Y, Chen and Chen (2009); Jian and Wong (2010); Brick and Chidambaran (2010); Li, F and Srinivasan (2011); Peng, Wei and Yang (2011); Jiang, F, Huang and Kim (2013); Duru, Wang and Zhao (2013); Albring, Robinson and Robinson (2014); Upadhyay, Bhargava and Faircloth (2014); Miletkov, Poulsen and Wintoki (2014); Black et al. (2015); Wan and Wong (2015); Wong, Kim and Lo (2015); Jiang, G, Rao and Yue (2015); Chauhan, Lakshmi and Dey (2016); Haß, Johan and Schweizer (2016) and Ullah (2017).
Growth of the firm	GROWTH	The current year net sales less previous year net sales scaled by previous year net sales	OSIRIS, Firm Annual Reports	Beiner et al. (2006); Chen, Y, Chen and Chen (2009); Ramdani and Witteloostuijn (2010); Huyghebaert and Wang (2012); Jameson, Prevost and Puthenpurackal (2014); Kang et al. (2014);Park et al. (2016);Karim, Robin and Suh (2016); Chauhan, Lakshmi and Dey (2016); Owusu and Weir (2016); and Ullah (2017)

4.5.1 Dependent Variables

Firm performance can be measured by managers, investors and academics in many ways, including financial performance. This study applies financial measurement of firm performance. Financial measurements are the most appropriate to provide a basis for understanding firm performance (Devinney, Yip & Johnson 2010). Two performance measurements are addressed in this study, namely accounting-based performance measurement and market-based performance measurement.

Accounting-Based Performance Measurement

According to Kothari (2001), accounting-based performance measurement is used to assess the managerial performance role or the valuation information role. As a managerial performance measurement, accounting-based performance measurement shows the value added by the manager activities in a period. As a valuation information measurement, accounting-based performance explains the firm-economic income or the change of shareholders wealth (Kothari 2001). Moreover, accounting-based performance measurement offers more reliable signals compared to stock returns in indicating manager performance (Hermalin & Weisbach 1998). This study addresses ROA and CFO as accounting-based performance measurement and to proxy a short-term performance.

The first accounting-based performance measurement in this study is ROA. ROA is usually used to measure short-term firm operating performance (Sami, Wang & Zhou 2011) and is classified as profitability ratio, which measures the firm's ability in creating profit based on assets (Delen, Kuzey & Uyar 2013). ROA is a common accounting-based performance measurement in the literature (Aharony, Wang & Yuan 2010; Berkman, Cole & Fu 2009; Bhagat & Bolton 2008; Brick & Chidambaran 2010; Brick, Palmon & Wald 2006; Chauhan, Lakshmi & Dey 2016; Chen, T 2015; Chen, Y, Chen & Chen 2009; Cheng 2008; Chou, Chung & Yin 2013; Delen, Kuzey & Uyar 2013; Eisenberg, Sundgren & Wells 1998; Gallery, Gallery & Supranowicz 2008; Giroud & Mueller 2010; Jiang, F, Huang & Kim 2013; Khan & Vieito 2013; Khanna & Palepu 2000; Mangena, Tauringana & Chamisa 2012; Pathan & Faff 2013; Sami, Wang & Zhou 2011; Ullah 2017; Upadhyay, Bhargava & Faircloth 2014; Waelchli & Zeller 2013; Wan & Wong 2015; Yermack 1996). Core, Guay and Rusticus (2006) state that ROA is better in measuring the firm operating performance because ROA is not affected by the use of financial leverage and extraordinary items computation. ROA reflects firm effectiveness and efficiency in using its assets (Jones, Shamsuddin & Naumann 2007). According to Larrabee and Voss (2013), ROA indicates the return available for the firm owners as a result of capital investment from creditors and owners. Higher ROA indicates higher

firm performance. Therefore, ROA is addressed as accounting-based performance measurement to measure the asset allocation performed by management.

Following Devinney, Yip and Johnson (2010); Margaritis and Psillaki (2010); Nekhili and Cherif (2011); Mangena, Tauringana and Chamisa (2012), this study defines ROA as the ratio of earnings available to common stock to the firm total assets at the end of the year. Earnings employed in computing ROA in this study are earnings before interest and taxes (EBIT). Then, this study measures ROA by taking EBIT divided by total assets at the end of the year.

The second accounting-based performance measurement is related to the cash flows of the firm. The importance of cash flows has attracted interest from academics, such as Cornett et al. (2007), Devinney, Yip and Johnson (2010), and Dickinson (2011). Cash flows are important because they reflect the ability of the firm to produce and manage cash in its business activities. Lack of cash can result in profitable firms experiencing financial difficulties to fulfill their financial obligations (Bodie & Merton 2000). Even though cash flows are more focused on current performance measuring (Cornett et al. 2007), cash flow pattern classification has a role in understanding firm value and to predict the stock returns. Firm valuation without fully including cash flows information can result in undervaluation of mature firms (Dickinson 2011). Cash flows are divided into three categories: 1) cash flows from operating activities; 2) cash flows from investing activities; and 3) cash flows from financing activities (Hoggett et al. 2015; Livnat & Zarowin 1990). This study uses cash flows from operation (CFO) as the second accounting-based performance measurement. CFO indicates the net assets flows created by the normal firm operating activities. This measure takes account of long-term horizon accruals and reduces timing and matching problems, which are related to investment and financing activities (Dechow 1994). This study defines cash flows from operation as the cash flows from operating activities scaled by total assets at the end of the year.

Market-Based Performance Measurement

The market-based performance measurement is a basis for firm performance assessment, which focuses on the firm's market value. One of market-based firm performance measurements is Tobin's Q. According to Larrabee and Voss (2013), Tobin's Q is defined as the ratio of market value of firm outstanding financial claims to firm assets replacement cost. Tobin's Q indicates the real value generated by firm's management. Higher Tobin's Q shows higher value added.

Tobin's Q provides some advantages to measure firm performance. Firstly, Tobin's Q provides the basis for investor or other users to make investment decisions since it compares firm value in the financial market and its book value or capital stock. Tobin's Q enables economic fluctuation to be explained due to its linking role between the real and financial sectors (Holmes & Maghrebi

2015). Secondly, it provides estimation of firm intangible assets, such as market power, goodwill, management quality and future investment opportunities. Higher firm intangible assets indicate higher Tobin's Q (Larrabee & Voss 2013). Thirdly, it provides information on how the firm opportunity changes by looking at yearly changes in the value of Tobin's Q (Larrabee & Voss 2013). Similar to literature such as Khanna and Palepu (2000), Jian and Wong (2003), Klapper and Love (2004), Cheng (2008), Berkman, Cole and Fu (2009), Chen, Chen and Chen (2009), Brick and Chidambaran (2010), Kohlbeck and Mayhew (2010), Lei and Song (2011), Nekhili and Cherif (2011), Pathan and Faff (2013), Kang et al. (2014), Chauhan, Lakshmi and Dey (2016), and Ullah (2017), this study also uses Tobin's Q to measure the market-based performance. Referring to Jian and Wong (2003), this study defines Tobin's Q as the ratio between sum of market value of equity and book value of liabilities divided by total assets at the end of the year. This study uses average stock price in the month of April, or four months after the financial year end, multiplied by the number of outstanding shares to obtain the market value of equity.

4.5.2 Independent Variables

To achieve the objectives, this study employs RPTs and the characteristics of corporate governance as independent variables. Descriptions of the independent variables are as follows.

RPTs Variables

Following the examples of RPTs and description of related parties in the ISFAS 7 and ISFAS 7 (Revised 2010), this study addresses several types of RPTs as independent variables: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction; and 3) RPTs based on the status of related party type. RPTs with related entity based on the nature of the relationship are examined in more detail. Several previous studies use total number or amount of RPTs in their studies. For example, Gordon, Henry and Palia (2004) employ the total number of RPTs and Jian and Wong (2003) address the total amount of RPTs. Following Jian and Wong (2003), the total size of RPTs (RPTTOTAL) is defined as the total amount of RPTs performed by the firm including RPTs sales of goods and/or services, RPTs purchases goods and/or services, RPTs interest revenues, RPTs interest expenses, RPTs sales of fixed assets, RPTs buy fixed assets, RPTs placement, RPT lending, and RPTs liabilities scaled by the total assets at the end of the year.

Four types of RPTs based on the nature of the transaction are observed in this study: 1) RPTs sales goods and/or services (RPTSALES); 2) RPTs purchases goods and/or services (RPTPURCHASES); 3) RPTs lending (RPTLENDING); and 4) RPTs liabilities (RPTLIABILITIES). A number of academics address RPTs sales in their studies (Chen, Y, Chen & Chen 2009; Gordon & Henry 2005; Gordon, Henry & Palia 2004; Jian & Wong 2003; Jian & Wong 2010; Williams &

Taylor 2013; Yeh, Shu & Su 2012). RPTs sales are the largest in amount and most frequent in Taiwan (Jian & Wong 2003), and the most common type of RPTs to facilitate tunneling firm assets (Cheung, Rau & Stouraitis 2006; Peng, Wei & Yang 2011) and to ease earnings management (Jian & Wong 2003). Following Jian and Wong (2003), Aharony, Wang and Yuan (2010) and Wong, Kim and Lo (2015), this study defines RPTs sales (RPTSALES) as total amount of RPTs on sales of goods and/or services performed by the firm scaled by the total sales at the end of the year.

RPTs purchases also get attention in previous studies, such as Jian and Wong (2003), Gordon, Henry and Palia (2004), Gordon and Henry (2005), Chen, Y, Chen and Chen (2009), and Jian and Wong (2010). Following Jian and Wong (2003) and Aharony, Wang and Yuan (2010), this study defines RPTs purchases (RPTPURCHASES) as total amount of transactions with related parties on purchases of goods and/or services performed by the firm in a year, including royalties, fees and expenses, scaled by the total assets at the end of the year.

RPTs lending and RPTs liabilities are also taken into consideration in this study. RPTs lending can facilitate tunneling the resources of the firm to its related parties, by providing more receivables, credit or loan with a higher amount or a favourable policy, than to non-related parties (Jian & Wong 2003; Peng, Wei & Yang 2011). In this study, RPTs lending include all transactions with related parties, which take in the forms of trade or account receivables, notes receivables, other receivables, due from, and/or or any other claims to related parties. Referring to Jian and Wong (2003), this study defines RPTs lending (RPTLENDING) as total amount of trade or account receivables, notes receivables, other receivables, due from, or any other claims from related parties scaled by total assets at the end of the year.

In addition, a number of scholars look at RPTs liabilities in the forms of RPTs loan, RPTs loan and guarantee, or RPTs borrowing in their studies (Jian & Wong 2003; Kohlbeck & Mayhew 2010; Yeh, Shu & Su 2012). In this study, RPTs liabilities include all transactions with related parties in the forms of trade or account payables, notes payables, other payables, due to, loan, or any other liabilities to related parties. Referring to Jian and Wong (2003), this study defines RPTs liabilities (RPTLIABILITIES) as the total amount of trade or account payables, notes payables, other payables, due to, loan, and/or any other liabilities to related parties in the balance sheet scaled by total assets at the end of the year.

In accordance with ISFAS 7 (Revised 2010), this study classifies the RPTs based on the status of related party into RPTs with related person (RPTPERSON) and RPTs with related entity (RPTENTITY). Referring to Jian and Wong (2003), this study defines RPTs with related person (RPTPERSON) as total amount of RPTs that are undertaken by the firm with persons or individuals

who relate to the firm scaled by the total assets at the end of the year and RPTs with related entity (RPTENTITY) as total amount of transactions undertaken by the firm with entities that relate to the firm scaled by the total assets at the end of the year.

In addition, referring to ISFAS 7 (Revised 2010) and Jian and Wong (2003), this study also classifies sub-categories RPTs entity based on the nature of the relationship: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). RPTENTITY_SH is defined as total amount of transactions with entities that own the firm's shares scaled by the total assets at the end of the year. RPTENTITY_ASSC is defined as total amount of transactions with entities that are the associated firms, joint control firms, joint operations, and/or joint ventures of the firm scaled by the total assets at the end of the year. RPTENTITY_OAF is defined as total amount of transactions with related entities that are not shareholders, associated firms, joint control firms, joint operations, and/or joint ventures of the firm scaled by the total assets at the end of the year.

Characteristics of Corporate Governance Variables

Indonesia adopts a two-board system, which separates the management functions (BOD) and supervisory and advisory functions (BOC) as stated in the Law 40/2007 Limited Liability Companies. In accordance with the two-board system in Indonesia, this study observes five characteristics of corporate governance: 1) size of the BOD (BODSIZE), size of the BOC (BOCSIZE), and total size of the BOD and BOC (BOARDSIZE); 2) the independence of the BOC (INDBOC); 3) the committees established in the BOC (BOCCOM); 4) the size of audit committee (ACSIZE); and 5) the expertise in finance and/or accounting of audit committee (ACEXP).

The size of firm board is a common aspect of the firm board that arises in the literature. Several studies have observed the size of firm board (Brick & Chidambaran 2010; Brick, Palmon & Wald 2006; Chen, T 2015; Cheng 2008; Coles, Daniel & Naveen 2008; Core, Holthausen & Larcker 1999; Duru, Wang & Zhao 2013; Eisenberg, Sundgren & Wells 1998; Francis, Hasan & Wu 2012; Karamanou & Vafeas 2005; Li, F & Srinivasan 2011; Mangena, Tauringana & Chamisa 2012; Miletkov, Poulsen & Wintoki 2014; Pathan & Faff 2013; Upadhyay, Bhargava & Faircloth 2014; Wintoki, Linck & Netter 2012; Yermack 1996). Since Indonesia adopts the two-board system, this study also separates the size of firm board into the size of the BOD and size of the BOC. For comparison purposes, this study also looks at total size of the BOD and BOC. This study defines the size of BOD (BODSIZE) as the number of directors in the BOD of the firm, and size of BOC (BOCSIZE) as the number of commissioners in the BOC of the firm. Consistently, this study defines total size of BOD and BOC (BOARDSIZE) as the sum of the number of directors in the BOD and number of commissioners in the BOC. Consistent with previous studies, this study uses

the natural logarithm of BODSIZE, BOCSIZE and BOARDSIZE in the correlation and regression analyses.

Another characteristic of corporate governance is the independence of the firm board. The independence of firm board provides an essential role to conduct the monitoring and controlling functions. Much literature observes the independence of firm board, such as Core, Holthausen and Larcker (1999), Klein (2002), Park, YW and Shin (2004), Karamanou and Vafeas (2005), Bhagat and Bolton (2008), Cheng (2008), Coles, Daniel and Naveen (2008), Brick and Chidambaran (2010), Li, F and Srinivasan (2011), Francis, Hasan and Wu (2012), Duru, Wang and Zhao (2013), Waelchli and Zeller (2013), Pathan and Faff (2013), Jiang, F, Huang and Kim (2013), Miletkov, Poulsen and Wintoki (2014), and Upadhyay, Bhargava and Faircloth (2014). In the Indonesian context, the supervisory and advisory functions are in the hands of the BOC. The independence of BOC has an important role for the BOC to execute their supervisory and advisory functions. This study defines the independence of BOC (INDBOC) as the number of independent commissioners in the BOC of the firm scaled by the size of the BOC.

This study employs another characteristic of corporate governance related to the BOC, the committees established in the BOC. In accordance to Law 40/2007 Limited Liability Companies, the BOC can establish committees to support them in carrying out their supervisory and advisory duties. Therefore, this study observes the effect of committee established in the BOC on firm performance. This study defines the committee established in the BOC (BOCCOM) as the number of committees established in BOC scaled by the size of the BOC.

The fourth and fifth characteristics of corporate governance in this study are related to audit committee: 1) the size of audit committee (ACSIZE); and 2) the expertise in finance and/or accounting of audit committee (ACEXP). The audit committee has an important role to support the BOC of the firm. Due to this important role, CMFISA (currently IFSA) and IDX requires that Indonesian publicly listed firms have an audit committee. Following Karamanou and Vafeas (2005), this study defines the size of audit committee (ACSIZE) as the number of members in audit committee of the firm. The natural logarithm of the number of members in audit committee is used in the correlation and regression analysis. The expertise in finance and/or accounting of audit committee (ACEXP) is defined as the number of members in audit committee who have education and/or experience background in finance and/or accounting scaled by the size of audit committee.

4.5.3 Control Variables

This study considers the following firm characteristics as control variables to control the potential effects which associated with firm performance: 1) size of the firm (FSIZE); 2) leverage (LEV); and (3) firm growth (GROWTH).

Size of the firm is an important characteristic, which influences the function of the firm's board (Brick & Chidambaran 2010). Larger firms need better monitoring. The effects of size of the firm on firm performance are positive or negative. Size of the firm has significant positive relationship with firm performance measured with ROA (Berkman, Cole & Fu 2009; Chen, Y, Chen & Chen 2009; Chou, Chung & Yin 2013; Giroud & Mueller 2010; Jiang, G, Rao & Yue 2015; Sami, Wang & Zhou 2011; Ullah 2017), Tobin's Q (Black et al. 2015; Jiang, G, Rao & Yue 2015; Ullah 2017; Upadhyay, Bhargava & Faircloth 2014), ROE (Jiang, G, Rao & Yue 2015; Owusu & Weir 2016; Sami, Wang & Zhou 2011), net profit margin, annual return per full-time equivalent employee (Waelchli & Zeller 2013), and dividend yield (Berkman, Cole & Fu 2009). In contrast, size of the firm also has negative effect on firm performance (Chauhan, Lakshmi & Dey 2016; Duru, Wang & Zhao 2013; Huyghebaert & Wang 2012; Jameson, Prevost & Puthenpurackal 2014; Kohlbeck & Mayhew 2010; Waelchli & Zeller 2013; Wong, Kim & Lo 2015; Xiao & Zhao 2014), especially during the financial crisis (Francis, Hasan & Wu 2012).

Following Yermack (1996), Klein (2002), Jian and Wong (2003), Gendron and Bédard (2006), Berkman, Cole and Fu (2009), Cheung, Jing, et al. (2009), Aharony, Wang and Yuan (2010), Brick and Chidambaran (2010), Jian and Wong (2010), Kohlbeck and Mayhew (2010), Lei and Song (2011), Peng, Wei and Yang (2011), Francis, Hasan and Wu (2012), Yeh, Shu and Su (2012), Jiang, F, Huang and Kim (2013), Kang et al. (2014), Xiao and Zhao (2014), Wan and Wong (2015), Black et al. (2015), Jiang, G, Rao and Yue (2015), Wong, Kim and Lo (2015), Chauhan, Lakshmi and Dey (2016) and Ullah (2017), this study uses the total assets at the end of the year to measure the size of the firm (FSIZE). The natural logarithm of the total assets at the end of the year is used in the correlation and regression analysis.

The second firm characteristic in this study is leverage of the firm, which shows the firm's capital structure (Bodie & Merton 2000). Leverage ratio measures the long horizon of the firm's ability to fulfill its financial obligations (Ross et al. 2014). Leverage as the proxy of firm's complexity could also affect the monitoring needs (Brick & Chidambaran 2010). A number of studies employ leverage to control the effect of firm capital structure on firm performance (Aharony, Wang & Yuan 2010; Albring, Robinson & Robinson 2014; Black et al. 2015; Brick & Chidambaran 2010; Chauhan, Lakshmi & Dey 2016; Coles, Daniel & Naveen 2008; Duru, Wang & Zhao 2013; Hwang & Kim 2016; Jian & Wong 2003; Jian & Wong 2010; Jiang, F, Huang & Kim 2013; Kang et al. 2014; Li, F & Srinivasan 2011; Park, J et al. 2016; Park, YW & Shin 2004; Peng, Wei & Yang 2011; Ullah

2017; Upadhyay, Bhargava & Faircloth 2014; Wan & Wong 2015; Wong, Kim & Lo 2015; Xiao & Zhao 2014). Following Miletkov, Poulsen and Wintoki (2014), Jiang, Rao and Yue (2015), and Haß, Johan and Schweizer (2016), this study defines leverage as the total liabilities scaled by the total assets at the end of the year.

The third firm characteristic in this study is growth of the firm, which influences firm performance (Geroski, Machin & Walters 1997) and brings positive influence to firm performance measured with ROA (Berkman, Cole & Fu 2009; Ullah 2017), Tobin's Q (Beiner et al. 2006; Berkman, Cole & Fu 2009; Jameson, Prevost & Puthenpurackal 2014; Owusu & Weir 2016; Ullah 2017; Upadhyay, Bhargava & Faircloth 2014), firm's profitability (Huyghebaert & Wang 2012), the expectations of long-term firm profitability (Geroski, Machin & Walters 1997), stock liquidity (Huyghebaert & Wang 2012), ROE (Owusu & Weir 2016), and the level of debt (Friedman, Johnson & Mitton 2003). However, growth opportunities are also found to provide negative effects on related guarantee issuance and firm's leverage (Berkman, Cole & Fu 2009), on profitability of firms with future financial distress (Huyghebaert & Wang 2012), ROA (Upadhyay, Bhargava & Faircloth 2014) and on firm value measured with adjusted Tobin's Q (Park et al. 2016).

Consistent with the literature (Beiner et al. 2006; Berkman, Cole & Fu 2009; Black et al. 2015; Chauhan, Lakshmi & Dey 2016; Friedman, Johnson & Mitton 2003; Huyghebaert & Wang 2012; Kang et al. 2014; Klapper & Love 2004; Owusu & Weir 2016; Ramdani & Witteloostuijn 2010; Ullah 2017; Upadhyay, Bhargava & Faircloth 2014; Wan & Wong 2015; Xiao & Zhao 2014), this study employs growth of the firm (GROWTH) to control its effect on firm performance. Following Beiner et al. (2006); Ramdani and Witteloostuijn (2010); Huyghebaert and Wang (2012); Kang et al. (2014), Park et al. (2016), Karim, Robin and Suh (2016), Chauhan, Lakshmi and Dey (2016), Owusu and Weir (2016), and Ullah (2017), this study uses the sales growth to proxy the growth of the firm. This study defines the firm growth (GROWTH) as the current year net sales less the previous year net sales scaled by previous year net sales.

4.6 Data Analysis

Correlation analysis and trend analysis are carried out as preliminary analyses. Correlation analysis is performed to describe the degree of correlation between two variables (Ramsey & Schafer 2013). This study applies the Spearman's rank-order correlation in the correlation analysis, which is appropriate since it does not need to consider or make any assumptions about the frequency distribution of the variables. Spearman's rank-order correlation measures the correlation with rank-order data. The Spearman's rank-order correlation coefficient shows the degree of monotonic relationship between two variables. A monotonic relationship can be monotonic increasing or monotonic decreasing. Monotonic increasing associates with a positive correlation,

while monotonic decreasing relates with a negative correlation (Sheskin 2007). Trend analysis is conducted to find the trend of dependent variables (ROA, CFO and Tobin's Q) and independent variables (RPTs variables, corporate governance characteristics variables and firm characteristics variables) of the sample over time from 2007 to 2013, and to justify in the choice of method for the regression analysis.

Data are analysed using panel data regression to find the relationship between dependent variable and independent variables. Panel data allows this study to obtain a more accurate model due to more observations, more degrees of freedom and less collinearity, and to control the bias due to the omitted variables (Baltagi -; Hsiao 2014).

Panel data could be estimated through three methods: 1) Ordinary Least Squares (OLS) method; 2) Fixed Effects method (FE); and 3) Random Effects (RE) method (Agung 2014; Greene 2008). OLS is the simplest method and treats firm time-series data as different firms at a point of time. Since the OLS method is carried out by stacking all panel data into one long regression, it has two limitations. First, the estimated coefficient of the observed variables may be biased due to the existence of the unobserved cross-sectional error or the unobserved time-variant error that are related to the observed variables. This is called heterogeneity bias. However, this bias just arises from omitting a time-constant variable. Second, the regression equation creates standard errors. In the OLS method, the regression equation results a composite error, including time-invariant error, time-variant error, and error related with classical assumptions in OLS (Wooldridge 2006).

The second method is the Fixed Effects (FE) method. The FE method comes from the assumption that the omitted variable effects are related to the included variables. The FE formulation denotes that across group difference can be described in differences in the constant term (Greene 2008). This method presents dummy variables to explain the effects of variables that are not included as independent variables and specific to each cross-sectional units, but remain constant over time, and the effects that are particular to each time period but are the same for all cross-sectional units (Hsiao 2014). Results of the FE method are unbiased and efficient compared to results of the OLS method. However, the FE method uses a number of parameters by adding dummy variables for each cross-section (Greene 2008).

The Random Effects (RE) method is a regression method with a random constant term (Greene 2008). The RE method treats individual specific effects as random variables. It assumes that the large number of aspects that influence the dependent variable (but are not included as independent variables), represented by a random disturbance, is common practice in the regression analysis (Hsiao 2014; Verbeek 2004). The RE method assumes that the cross-section specific constant terms are randomly distributed across cross-sectional units. Cross-section

specific constant term denotes a different constant term for each cross-section unit (Greene 2008). In other words, it is assumed that the unobserved effect is uncorrelated with each explanatory variable in all time periods (Wooldridge 2006). The RE method is more efficient than the OLS method due to the classical errors. The RE method is more efficient compared to the FE method due to the lower number of parameters that need to be estimated (Greene 2008). However, the RE method contains the error component that links to time-invariant. Thus, the coefficient of the model will be biased if there is correlation between time-invariant error and some independent variables in the model.

Several tests are applied to choose the method in panel data regression analysis, namely Chow test or Redundant Fixed Effects test (F-test), Lagrange-Multiplier (LM) test, and Hausman-test. Chow test or Redundant Fixed Effects test (F-test) is used to check the existence of equality between the fixed intercepts of the FE method to select the better method between the OLS and FE methods. The LM test is performed to verify the random characteristics of intercept in selecting the better method between the OLS and RE methods. LM tests the RE model based on the OLS residuals (Greene 2008). Hausman-test is performed to determine the appropriate regression method between the FE and RE methods. The idea of this test is that the RE methods can be used unless the Hausman-test rejects. The Hausman-test indicates the correlation between individual specific effects and independent variables is insignificant. The null hypothesis in Hausman-test is that the coefficients estimated by the RE estimator are the same with the coefficients estimated by the FE estimator. It is safe to use the RE model if the *p*-value is insignificant and the probability of Chi-square is larger than 0.05%. Failure to reject null hypothesis means that the RE estimates and the FE estimates are sufficiently close, implying that it does not matter which estimate method is used, or the sampling variation in the FE method is so large that it cannot be concluded that the practically significant differences are statistically significant. In contrast, if *p*-value is significant, then the key RE estimates assumption is false and is preferred to apply the FE method (Wooldridge 2006).

4.7 Regression Models

In this study, five general models are developed to test the hypotheses with the OLS method, FE method and RE method.

4.7.1 The Relationship between RPTs and Firm Performance

Following Jian and Wong (2003), Gallery, Gallery and Supranowicz (2008), Bae, Cheon and Kang (2008), Berkman, Cole and Fu (2009), Chen, Y, Chen and Chen (2009), Aharony, Wang and Yuan (2010), Kohlbeck and Mayhew (2010), Jiang, G, Lee and Yue (2010), Ge et al. (2010), Lei and Song (2011), Nekhili and Cherif (2011), Huyghebaert and Wang (2012), Kang et al. (2014), Wong,

Kim and Lo (2015), Jiang, G, Rao and Yue (2015), Wan and Wong (2015), Hwang and Kim (2016), Chauhan, Lakshmi and Dey (2016), Habib, Muhammadi and Jiang (2017), this study uses RPTs as independent variable and firm performance as dependent variable. Then, the following model is constructed to examine the relationship between RPTs and firm performance with the OLS method, FE method and RE method.

$$FP_{it} = \alpha + \beta_1 RPTs_{it} + \beta_2 FSIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \varepsilon_{it} \quad \text{..... (1)}$$

Where:

FP_{it} = Firm performance measured with accounting-based performance measurement (ROA and CFO) and market-based performance measurement (Tobin's Q) for firm i and time t.

$RPTs_{it}$ = (1) Related party transactions measured with total size of RPTs (RPTTOTAL) for firm i and time t.

(2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) regressed separately, RPTs sales and RPTs purchases (RPTSALES and RPTPURCHASES) combined regressed, and RPTs lending and RPTs liabilities (RPTLENDING and RPTLIABILITIES) combined regressed, for firm i and time t.

(3) RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) separately and combined regressed for firm i and time t.

(4) Sub-categories of RPT entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC), and RPTs other affiliates (RPTENTITY_OAFF) separately and combined regressed for firm i and time t.

$FSIZE_{it}$ = Size of the firm measured with the natural logarithm of total assets at the end of the year for firm i and time t.

LEV_{it} = Leverage of the firm measured with the total liabilities scaled by the total assets at the end of the year for firm i and time t.

$GROWTH_{it}$ = Growth of the firm measured with the current year net sales less previous year net sales scaled by the previous year net sales for firm i and time t.

Model 1 is fit to estimate if the F-statistic of the model is significant at the 5% level. The hypothesis H_1 is accepted if the coefficient of $RPTs_{it}$ (β_1) is significant. This study applies levels of significance at 1%, 5% and 10%.

4.7.2 The Relationship between Characteristics of Corporate Governance and Firm Performance

Following Yermack (1996), Eisenberg, Sundgren and Wells (1998), Beiner et al. (2006), Cheng (2008), Bhagat and Bolton (2008), Mangena, Tauringana and Chamisa (2012), Huyghebaert and Wang (2012), Wintoki, Linck and Netter (2012), Duru, Wang and Zhao (2013), Liang, Xu and

Jiraporn (2013), Waelchli and Zeller (2013), Pathan and Faff (2013), Upadhyay, Bhargava and Faircloth (2014), Sun, J and Liu (2014), Jameson, Prevost and Puthenpurackal (2014), Masulis and Mobbs (2014), Liu, Y, Wei and Xie (2014), Choi, Han and Lee (2014), Wang, L (2015), Liu, Y et al. (2015), Das and Dey (2016), Arora and Sharma (2016), Farag and Mallin (2016), Haß, Johan and Schweizer (2016), Adams, M and Jiang (2016), Malik and Makhdoom (2016), Hussain, Rigoni and Orij (2016), Zhu et al. (2016), Dah (2016) and (Cavaco et al. 2017), this study uses firm performance as dependent variable and corporate governance characteristics as independent variable in the regression model. Then, the model used to estimate the relationship between corporate governance characteristics and firm performance with the OLS method, FE method and RE method is as follows:

$$FP_{it} = \alpha + \beta_1 CGC_{it} + \beta_2 FSIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \varepsilon_{it} \quad \text{..... (2)}$$

Where:

FP_{it} = Firm performance measured with accounting-based performance measurement (ROA and CFO) and market-based performance measurement (Tobin's Q) for firm i and time t.

CGC_{it} = Corporate governance characteristics measured with:

(1) Size of BOD (BODSIZE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE) that are individually regressed
(2) The independence of BOC (INDBOC),
(3) The committees established in BOC (BOCCOM),
(4) The size of audit committee (ACSIZE),
(5) The expertise in finance and/or accounting of audit committee (ACEXP)

for firm i and time t.

$FSIZE_{it}$ = Size of the firm measured with the natural logarithm of total assets at the end of the year for firm i and time t.

LEV_{it} = Leverage of the firm measured with the total liabilities scaled by the total assets at the end of the year for firm i and time t.

$GROWTH_{it}$ = Growth of the firm measured with the current year net sales less previous year net sales scaled by the previous year net sales for firm i and time t.

Model 2 is fit to estimate if the F-statistic of the model is significant at the 5% level. Hypothesis 2 is accepted if the coefficient of CGC_{it} (β_1) is significant. This study applies levels of significance at 1%, 5% and 10%.

4.7.3 The Combined Effect of RPTs and Characteristics of Corporate Governance on Firm Performance

The model used to examine the combined effect of RPTs and corporate governance characteristics on firm performance with the OLS method, FE method and RE method is as follows:

$$FP_{it} = \alpha + \beta_1 RPTs_{it} + \beta_2 CGC_{it} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + \varepsilon_{it} \quad \text{…..…….. (3)}$$

Where:

FP_{it} = Firm performance measured with accounting-based performance measurement (ROA and CFO) and market-based performance measurement (Tobin's Q) for firm i and time t.

$RPTs_{it}$ =

(1) Related party transactions measured with total size of RPTs (RPTTOTAL) for firm i and time t.

(2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) separately regressed, RPTs sales and RPTs purchases (RPTSALES and RPTPURCHASES) combined, RPTs lending and RPTs liabilities (RPTLENDING and RPTLIABILITIES) combined for firm i and time t.

(3) RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) regressed separately and combined for firm i and time t.

(4) Sub-categories of RPT entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC), and RPTs other affiliates (RPTENTITY_OAFF) regressed separately and combined for firm i and time t.

CGC_{it} = Corporate governance characteristics measured with:

(1) Size of BOD (BODSIZE), size of BOC (BOCSIZE) and total size of BOD and BOC (BOARDSIZE) that are individually regressed
(2) The independence of BOC (INDBOC)
(3) The committees established in BOC (BOCCOM)

for firm i and time t.

$FSIZE_{it}$ = Size of the firm measured with the natural logarithm of total assets at the end of the year for firm i and time t.

LEV_{it} = Leverage of the firm measured with the total liabilities scaled by the total assets at the end of the year for firm i and time t.

$GROWTH_{it}$ = Growth of the firm measured with the current year net sales less previous year net sales scaled by the previous year net sales for firm i and time t.

Model 3 is fit to estimate if the F-statistic of the model is significant at the 5% level. Hypothesis 3 is accepted if the coefficient of $RPTs_{it}$ (β_1) is significant while controlling the characteristics of corporate governance variable and if the coefficient of CGC_{it} (β_2) is significant while controlling the RPTs variables. This study applies levels of significance at 1%, 5% and 10%.

4.7.4 The Interaction Effect of RPTs and Characteristics of Corporate Governance on the Relationship between RPTs and Firm Performance

Referring to Chauhan, Lakshmi and Dey (2016), this study introduces interaction between RPTs and corporate governance characteristic as moderating variable in the model. Then, the model to examine the interaction effect of RPTs and corporate governance characteristics on the relationship between RPTs and firm performance with the OLS method, FE method and RE method is as follows:

$$FP_{it} = \alpha + \beta_1 RPTs_{it} + \beta_2 CGC_{it} + \beta_3 RPTs_{it} * CGC_{it} + \beta_4 FSIZE_{it} + \beta_5 LEV_{it} + \beta_6 GROWTH_{it} + \varepsilon_{it} \quad \text{..... (4)}$$

Where:

FP_{it} = Firm performance measured with accounting-based performance measurement (ROA and CFO) and market-based performance measurement (Tobin's Q) for firm i and time t.

$RPTs_{it}$ =
(1) Related party transactions measured with total size of RPTs (RPTTOTAL) for firm i and time t.
(2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) separately regressed, RPTs sales and RPTs purchases (RPTSALES and RPTPURCHASES) combined and RPTs lending and RPTs liabilities (RPTLENDING and RPTLIABILITIES) combined for firm i and time t.
(3) RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) regressed separately and combined for firm i and time t.
(4) Sub-categories of RPT entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC) and RPTs other affiliates (RPTENTITY_OAFF) regressed separately and combined for firm i and time t.

CGC_{it} = Corporate governance characteristics measured with:
(1) Size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) which are regressed separately
(2) The independence of BOC (INDBOC)
(3) The committees established in BOC (BOCCOM)

for firm i and time t.

$RPTs_{it} * CGC_{it}$ = Interaction between RPTs and corporate governance characteristics as follows:
(1) Total size of RPTs (RPTTOTAL) and size of the BOD (BODSIZE): RPTTOTAL*BODSIZE for firm i and time t.
(2) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) and size of the BOD (BODSIZE): RPTSALES*BODSIZE, RPTPURCHASES*BODSIZE, RPTLENDING*BODSIZE, RPTLIABILITIES*BODSIZE regressed separately, RPTSALES*BODSIZE and RPTPURCHASES*BODSIZE combined, and RPTLENDING*BODSIZE and RPTLIABILITIES*BODSIZE combined for firm i and time t.
(3) RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) and size of the BOD (BODSIZE): RPTPERSON*BODSIZE, RPTENTITY*BODSIZE regressed separately and combined for firm i and time t.
(4) Sub-categories of RPT entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and size of the BOD (BODSIZE): RPTENTITY_SH*BODSIZE, RPTENTITY_ASSC*BODSIZE, and

RPTENTITY_OAFF*BODSIZE regressed separately and combined for firm i and time t.

(5) Total size of RPTs (RPTTOTAL) and size of the BOC (BOCSIZE): RPTTOTAL*BOCSIZE for firm i and time t.
(6) RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) and size of the BOC (BOCSIZE): RPTSALES*BOCSIZE, RPTPURCHASES*BOCSIZE, RPTLENDINGS*BOCSIZE, RPTLIABILITIES*BOCSIZE separately, RPTSALES*BOCSIZE and RPTPURCHASES*BOCSIZE combined, RPTLENDING*BOCSIZE and RPTLIABILITIES*BOCSIZE combined for firm i and time t.
(7) RPTs based on the status of related party (RPTPERSON and RPTENTITY) and size of the BOC (BOCSIZE): RPTPERSON*BOCSIZE, RPTENTITY*BOCSIZE regressed separately and combined for firm i and time t.
(8) Sub-categories of RPT entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and size of the BOC (BOCSIZE): RPTENTITY_SH*BOCSIZE, RPTENTITY_ASSC*BOCSIZE, and RPTENTITY_OAFF*BOCSIZE regressed separately and combined for firm i and time t.

(9) Total size of RPTs (RPTTOTAL) and the total size of the BOD and BOC (BOARDSIZE): RPTTOTAL*BOARDSIZE for firm i and time t.
(10) RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASE, RPTLENDING and RPTLIABILITIES) and total size of the BOD and BOC (BOARDSIZE): RPTSALES*BOARDSIZE, RPTPURCHASES*BOARDSIZE, RPTLENDING*BOARDSIZE, RPTLIABILITIES*BOARDSIZE regressed separately and RPTSALES*BOARDSIZE and RPTPURCHASES*BOARDSIZE combined, RPTLENDING*BOARDSIZE and RPTLIABILITIES*BOARDSIZE combined for firm i and time t.
(11) RPTs based on the status of related party (RPTPERSON and RPTENTITY) and total size of the BOD and BOC (BOARDSIZE): RPTPERSON*BOARDSIZE, RPTENTITY*BOARDSIZE regressed separately and combined for firm i and time t.
(12) Sub-categories of RPT entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and total size of the BOD and BOC (BOARDSIZE): RPTENTITY_SH* BOARDSIZE, RPTENTITY_ASSC*BOARDSIZE, and RPTENTITY_OAFF* BOARDSIZE regressed separately and combined for firm i and time t.

(13) Total size of RPTs (RPTTOTAL) and the independence of the BOC (INDBOC): RPTTOTAL*INDBOC for firm i and time t.
(14) RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASE, RPTLENDING and RPTLIABILITIES) and the independence of the BOC: RPTSALES*INDBOC, RPTPURCHASES*INDBOC, RPTLENDING*INDBOC and RPTLIABILITIES*INDBOC regressed separately, RPTSALES*INDBOC and RPTPURCHASES*INDBOC combined, RPTLENDING*INDBOC and RPTLIABILITIES*INDBOC combined for firm i and time t.
(15) RPTs based on the status of related party (RPTPERSON and RPTENTITY) and the independence of the BOC (INDBOC): RPTPERSON*INDBOC, RPTENTITY*INDBOC regressed separately and combined for firm i and time t.
(16) Sub-categories of RPT entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and the independence of the BOC (INDBOC): RPTENTITY_SH*INDBOC, RPTENTITY_ASSC*INDBOC, and RPTENTITY_OAFF*INDBOC regressed separately and combined for firm i and time t.

(17) Total size of RPTs (RPTTOTAL) and the committees established in the BOC (BOCCOM): RPTTOTAL*BOCCOM for firm i and time t.
(18) RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASE, RPTLENDING and RPTLIABILITIES) and the committees established in the BOC (BOCCOM): RPTSALES*BOCCOM, RPTPURCHASES*BOCCOM, RPTLENDING*BOCCOM, RPTLIABILITIES* BOCCOM regressed separately, RPTSALES*BOCCOM and RPTPURCHASES*BOCCOM combined, RPTLENDING*BOCCOM and RPTLIABILITIES* BOCCOM combined for firm i and time t.
(19) RPTs based on the status of related party (RPTPERSON and RPTENTITY) and the committees established in the BOC (BOCCOM): RPTPERSON*BOCCOM, RPTENTITY*BOCCOM regressed separately and combined for firm i and time t.

(20) Sub-categories of RPT entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and the committees established in the BOC (BOCCOM): RPTENTITY_SH*BOCCOM, RPTENTITY_ASSC*BOCCOM and RPTENTITY_OAFF*BOCCOM regressed separately and combined for firm i and time t.

$FSIZE_{it}$ = The size of the firm measured with the natural logarithm of total assets at the end of the year for firm i and time t.

LEV_{it} = The leverage of the firm measured with the total liabilities scaled by the total assets at the end of the year for firm i and time t.

$GROWTH_{it}$ = The growth of the firm measured with the current year net sales less previous year net sales scaled by the previous year net sales for firm i and time t.

Model 4 is fit to estimate if the F-statistic of the model is significant at 5% level. Hypothesis 4 is accepted if the coefficient of $RPTs_{it}$ (β_1) is significant in Model 3 and Model 4 and the coefficient of $RPTs_{it}$*CGC_{it} (β_3) is significant in Model 5. This study applies the level of significance at 1%, 5% and 10% level.

4.8 Statistical Validity Testing

Statistical validity testing on regression models is undertaken to ensure that the findings are unbiased. The tests are important to provide assurance that the regression models are empirically reliable. The F-test statistic is employed to determine the significance of the regression models. The direction and significance of the regression coefficients are examined by testing whether they are different than 0 with t-tests. This study uses the Eviews application which has been incorporated with statistical validity tests. The statistical validity tests include normality, autocorrelation, heteroscedasticity and multicollinearity tests.

4.8.1 Normality Test

The data used in the regression models are assumed to have a normal distribution, which has a zero mean and constant variance (Greene 2008). Violation of this assumption will result in the weakened regression statistical inferences. Histogram plot, skewness, kurtosis, and Jacque-Bera statistic of residuals in multiple regressions are examined. The data has a normal distribution if the histogram plot of the residual is bell-shaped. The normal residual has the skewness of a symmetric distribution which is zero. Positive (negative) skewness means that the distribution has a long right (left) tail. Kurtosis measures the peakedness or flatness of the residual distribution. The normal residual distribution has kurtosis 3. The residual distribution will be peaked (flat) relative to the normal when the kurtosis is more than 3 (less than 3). The common test for normality assumption is the Jarcque-Bera statistic, which measures the difference of the skewness and the kurtosis of

the residuals with the normal distribution. The residuals are normally distributed when the Jacque-Bera statistic is insignificant.

However, when the data does not have a normal distribution and the sample is large enough, the central limit theorem derived by Laplace (1810) can be applied. When mean is based on a reasonably large sample size, the plots of the mean will approximately follow a normal curve (Takezawa 2014; Wilcox 2010). In other words, the estimators satisfy asymptotic normality that is approximately normally distributed in large enough sample sizes (Wooldridge 2006). There is no theorem providing the specific answer for the term “large enough” sample sizes. In some cases, a sample size of 20 is sufficient to obtain a good approximation, and in other conditions 100 samples are required (Wilcox 2010). Since this study employs more than 600 firm-year observations, the sample size satisfies the normality assumption due to approximately normal distribution.

4.8.2 Autocorrelation Test

Another assumption in the multiple regressions is that the residuals are independent or there is no autocorrelation. Autocorrelation is commonly found in time-series data and occurs if two or more error terms have correlation. The variation around the regression function is not independent in terms of time or from one period to the next (Greene 2008; Verbeek 2004). Autocorrelation in economic application is commonly positive, but sometimes it will be negative, such as a positive error in one period tends to be followed by a negative error in the next period, and vice versa (Verbeek 2004).

In terms of the autocorrelation issue, the OLS method is the best linear unbiased estimator when $\rho = 0$ or the autocorrelation is not present. The existence of autocorrelation will result in misleading inferences based on the OLS method. The Durbin-Watson test is a popular test to detect the autocorrelation problem in the regression model. When the Durbin-Watson value is close to 2.00 then the coefficient ρ is close to zero. A Durbin-Watson value of much smaller than 2.00 or $\rho > 0$ indicates a positive autocorrelation. A Durbin-Watson value much larger than 2.00 or $\rho < 0$ indicates a negative autocorrelation (Verbeek 2004). This study employs the Durbin-Watson test to detect the existence of autocorrelation.

When autocorrelation is present, the Generalized Least Squares (GLS) is applied. GLS is a technique or method to estimate the unknown parameters in a linear regression model and can be applied to carry out linear regression when there is a correlation between the residuals in a regression model and when heteroscedasticity exists. The GLS transform the original variables so that the transformed variables satisfy the assumptions in the classical model. GLS minimises the weighted sum of residual squares (Gujarati 2003).

In the standard OLS, the error covariance matrix is assumed to have a special form, which is equal to a diagonal matrix with equal elements. When the variances are unequal and the errors are correlated, the diagonal elements are not equal anymore, and the off-diagonal elements are not equal to zero anymore. GLS is applied to solve these problems. GLS can be understood as a generalisation of OLS. The GLS formula is the OLS formula with $\sum^{-1}$ held in the middle of each covariance calculation. GLS is also known as weighting individuals to get efficiency. When the variances are unequal but the errors are uncorrelated, GLS has weighted individuals by the reciprocal of the variance of their error terms. The larger the variance of an individual's error will result in the smaller their contribution to the covariance of X's term. When the errors are correlated, it also ends up weighting individuals differently. GLS also can be seen as the transformation of the model equation to a new model that has an uncorrelated error and equal variances. This transformation is carried out by multiplying each individual's variables with the reciprocal of the standard deviation of its error term. It also can be done by dividing each error with σ_i and will result in each individual's error variance equal to one. Then, the errors will be homoskedastic (Winship -).

4.8.3 Heteroskedasticity Test

Another assumption in regression is that the variance of the residual terms is constant or homoskedasticity. It means that the residuals of each level of independent variables have the same variance. The heteroskedasticity arises when the error terms are mutually uncorrelated but the variances of the residual vary. Heteroskedasticity commonly occurs in cross-sectional models. The existence of heteroskedasticity disturbs the homoscedasticity assumption and could provide misleading results due to inappropriate standard errors (Verbeek 2004; Wooldridge 2006).

There are several tests to detect the existence of heteroskedasticity, such as the F and LM tests (Wooldridge 2006), Breusch-Pagan test and White test (Verbeek 2004; Wooldridge 2006), Park test, Glejser test, and Goldfeld-Quandt (Winarno 2007). The LM Breusch-Pagan test is applied in this study to detect heteroskedasticity. The steps in LM Breusch-Pagan test are: 1) estimate the model to obtain the residuals; 2) perform the auxiliary regression by regressing the squared residuals for each observation made in the first step with independent variables; 3) obtain the LM test statistics as the result of the coefficient of determination of the auxiliary regression in Step 2 and sample size n with formula $LM = n*R^2$; and 4) compare the LM test statistics with Chi-squared critical value. If the LM test statistics are below the chosen significance level, then the null hypothesis of homosckdasticity is rejected (Wooldridge 2006). This study applies 5% significance level. If heteroskedasticity exists, the GLS is applied to solve this problem. The GLS transforms the original variables so that the transformed variables satisfy the assumptions in the classical model and minimises the weighted sum of residual squares (Gujarati 2003).

4.8.4 Multicollinearity Test

Another assumption in multiple regressions is that there is not an approximately linear relationship between two or more of the independent variables. According to the Gaus-Markov theorem, the least squares estimator among all linear unbiased estimators has the smallest variance. The term multicollinearity is used to explain when an approximately linear relationship among the independent variables occurs. In an extreme condition, one independent variable has an exact linear correlation with one or more other independent variables. Using too many dummy variables could result in the exact multicollinearity (Verbeek 2004). The exact relationship among the independent variables causes the assumption violation of the model, not of the data (Greene 2008). High correlation commonly occurs among the independent variables. The existence of multicollinearity could be known by the symptoms such as having: 1) wide fluctuations in the parameter estimates due to small changes in the data; 2) very high standard errors and low significance levels of coefficients even though they are jointly significant and the R square for the regression is quite high; and 3) the wrong sign or incredible magnitudes of coefficients (Greene 2008).

The presence of multicollinearity can be detected by examining the correlation matrix between two independent variables, and the variation inflation factor (VIF). The simple correlation coefficient shows the linear relationship between two independent variables (Ramsey & Schafer 2013). The multicollinearity issue may arise when at least one simple correlation coefficient between independent variables is more than 0.80 (Gujarati 2003). VIF indicates the presence of a high linear relationship among independent variables. Multicollinearity among independent variables occurs when the VIF value is equal to or larger than 10 (Takezawa 2014).

Several actions can be taken to solve the multicollinearity problem. First, it is easily solved by excluding one of the variables from the model. Unfortunately, this action could also result in bias (Greene 2008; Verbeek 2004; Wooldridge 2006). Second, in the social sciences, obtaining more data could reduce variance of unbiased estimators when the problem occurs due to lack of information (Greene 2008; Wooldridge 2006).

4.9 Endogeneity Issue

The endogeneity problem may arise in financial and accounting research, including in examining the relationship between the characteristics of corporate governance and firm performance (Wintoki, Linck & Netter 2012). Endogeneity occurs when the error terms of a regression model has correlation with the endogeneous variables in the regression model due to omitted correlated variables, reverse causality and simultaneity (Mertens, Pugliese & Recker 2017). Davidson and MacKinnon (1993) suggest an augmented regression test, also called Durbin-Wu-Hausman test, to

detect the existence of endogeneity. This test is carried out by including the residual of endogenous variable as a function of all exogenous variables, in the original regression model (Davidson, R & MacKinnon 1993; Wooldridge 2006).

In the context of this study, the suspected endogeneous variable occurs in examining the relationship between characteristics of corporate governance and firm performance as in regression Model 2 and the relationship of RPTs and characteristics of corporate governance on firm performance as in regression Model 3:

$$FP_{it} = \alpha + \beta_1 CGC_{it} + \beta_2 FSIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \varepsilon_{it} \quad \text{…..…….. (2)}$$

$$FP_{it} = \alpha + \beta_1 RPTs_{it} + \beta_2 CGC_{it} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + \varepsilon_{it} \quad \text{…..…….. (3)}$$

Following Davidson and MacKinnon (1993) and Wooldridge (2006), the Durbin-Wu-Hausman test is carried out as follows: 1) OLS regression with characteristics of corporate governance as dependent variable and characteristics of corporate governance and firm performance in previous year and control variables as independent variables ($CG_{it} = \alpha + \beta_1 CGC_{it-1} + \beta_2 FP_{it-1} + \beta_3 FSIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + v_{it}$) is carried out to obtain the residuals; and 2) an augmented regression is performed by including the residuals obtained in the first step into the original regression Model 3. If the coefficient of the residuals in the augmented regression is significant, then OLS is inconsistent and such characteristics of corporate governance is endogenous (Davidson, R & MacKinnon 1993; Wooldridge 2006).

4.10 Summary of the Chapter

Chapter 4 discusses the methodology used in this study, including: the sample, model, data analysis, and statistical validity test. Data are obtained mainly from the OSIRIS database, annual reports, audited financial statement, and yahoo finance website. The methods used in selecting, defining, and measuring the variables, including dependent and independent variables, are based on previous studies and are comprehensively described in this chapter. Data analysis with regression models including OLS method, fixed-effects method and random-effect method are also discussed. Furthermore, this chapter explains the statistical validity tests and endogeneity issue in corporate governance to ensure that findings are unbiased and to provide empirically reliable conclusions from the regression models that will be performed. The results and discussion concerning the relationship between RPTs and firm performance are presented in Chapter 5.

CHAPTER 5

RESULTS AND DISCUSSION: RELATED PARTY TRANSACTIONS AND FIRM PERFORMANCE

5.1 Introduction

This chapter presents and discusses the results of this study in relation to the first specific objectives, that are to examine the relationships between RPTs and firm performance.

The following research question is answered to achieve the first specific objective:

Research Question 1: Is there a significant relationship between RPTs and firm performance?

This study addresses several types of RPTs: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction, namely: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES); and 3) RPTs based on the status of related party, namely: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also addresses the sub-categories of RPTs entity based on the nature of the relationship, such as (i) RPTs shareholders (RPTENTITY_SH), (ii) RPTs associates and joint firms (RPTENTITY_ASSC), and (iii) RPTs other affiliates (RPTENTITY_OAFF). To achieve the first objective, this study investigates the link of those types of RPTs to a short-term performance (ROA and CFO) and a long-term performance (Tobin's Q). Therefore, Research Question 1 is detailed specifically as:

Research Question 1a: Is there a significant relationship between total size of RPTs (RPTTOTAL) and firm performance?

Research Question 1b: Is there a significant relationship between RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASE), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) and firm performance?

Research Question 1c: Is there a significant relationship between RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) and firm performance?

Research Question 1d: Is there a significant relationship between sub-categories of RPTs entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC) and RPTs other affiliates (RPTENTITY_OAFF) and firm performance?

The results and discussion of examining the relationships between RPTs and firm performance include the descriptive statistics of the variables in the analyses (firm performance variables, RPTs variables, and firm characteristics variables), the correlation among variables, trend analysis, selection of optimum method to carry out the regression analysis, results of statistical validity test and results of regression using the GLS fixed-effects estimates method to investigate the relationship between RPTs and firm performance.

5.2 Descriptive Statistics

Descriptive statistics for the firms in the sample (henceforth termed 'sample firms') covering the variables of firm performance, RPTs and firm characteristics are presented in Tables 5.1, 5.2 and 5.3, respectively.

This study examines three measurements of firm performance, namely a short-term performance (ROA and CFO) and a long-term performance (Tobin's Q) to investigate the relationship between RPTs and firm performance. As shown in Table 5.1, ROAs of the sample firms range between -0.5752 and 0.8717, with an average 0.1177 (11.77%). This means that each IDR 1 that is invested by the sample firms will result in anything from a loss of IDR 0.5752 to a gain of IDR 0.8717 earnings before interest and tax (EBIT), with an average of a gain of IDR 0.1177. It seems that while some sample firms suffer losses (33 out of 658 firm-years) most firms generate profits.

CFOs of the sample firms range between -0.3669 and 0.6627 of the total assets at the end of the year, with an average of 0.0926. This shows that some sample firms generate negative CFO (107 out of 658 firm-years) while most produce positive CFO, with an average of IDR 0.0926 over the total assets of every IDR 1 at the end of the year.

Meanwhile, the Tobin's Q of the sample firms range between 0.2594 and 19.3396, with an average of 2.0248. This indicates that some sample firms possess a lower market value than the book value (183 out of 658 firm years) since their Tobin's Q is less than 1. In contrast, other sample firms have a higher market value compared to book value since their Tobin's Q are higher than 1, with 40 out of 658 firm-years scoring Tobin's Q higher than 5.

Table 5.1 Descriptive Statistics for Firm Performance Variables

	Mean	Median	Maximum	Minimum	Std. Dev.	Observ.
ROA	0.1177	0.0915	0.8717	-0.5752	0.1246	658
CFO	0.0926	0.0736	0.6627	-0.3669	0.1179	658
Tobin's Q	2.0248	1.3678	19.3396	0.2594	2.2064	658

This study employs several types of RPTs to examine the relationship between RPTs and firm performance: 1) total size of RPTs (RPTTOTAL); 2) RPTs based on the nature of the transaction, namely: RPTs sales (RPTSALES), RPTs puchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES); and 3) RPTs based on the status of related party, namely: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY). This study also examines the sub-categories of RPTs entity based on the nature of the relationship: (i) RPTs shareholders (RPTENTITY_SH); (ii) RPTs with associates and joint firms (RPTENTITY_ASSC); and (iii) RPTs other affiliates (RPTENTITY_OAFF). The descriptive statistics for RPTs variables are presented in Table 5.2. Panel A shows that the mean total size of RPTs (RPTTOTAL) of the sample firms is 0.3032 (30.32%) of the total assets at the end of the year. It seems that the sample firms favour conducting their business activities with related parties. It might be that the sample firms can obtain the goods and/or services at the required quantity and quality, within required time, share risks, form network, align operation activities, or gain other benefits through their involvement in RPTs.

The four types of RPTs examined in this study based on the nature of the transaction comprise: selling goods and/or services to related parties (RPTSALES); purchasing goods and/or services from related parties, including payment of royalties, fees and expenses (RPTPURCHASES); providing trade account receivables, other receivables, due from, and/or other claims in the balance sheets from related parties (RPTLENDING); and receiving trade payables, other payables, due to, loan, and/or any other liabilities to related parties in the balance sheet (RPTLIABILITIES). The descriptive statistics for these RPTs are presented in Table 5.2 Panel B. In summary, the mean RPTSALES is 0.0876 (8.76%) of the total assets and constitutes 0.2889 (28.89%) of the total size of RPTs (RPTTOTAL). The mean RPTPURCHASES is 0.1164 (11.64%) of the total assets and 0.3839 (38.39%) of the RPTTOTAL. The data shows that RPTPURCHASES is higher than RPTSALES. The mean RPTLENDING is 0.0308 (3.08%) of total assets, while the average for RPTLIABILITIES is 0.0511 (5.11%) of the total assets. In percentage terms, they comprise 0.1016 (10.16%) of the total assets and 0.1685 (16.85%) of RPTTOTAL, respectively. This also reveals that RPTLIABILITIES is higher than RPTLENDING, which agrees with the statistic description that RPTPURCHASES is higher than RPTSALES.

Table 5.2 Descriptive Statistics for RPTs Variables

Panel A. Total size of RPTs

RPTs TYPE	Mean	% of RPTTOTAL	Median	Std. Dev.	Observ
RPTTOTAL	0.3032	1.0000	0.1008	0.4861	658

Panel B. RPTs based on the nature of transactions

RPTs TYPE	Mean	% of RPTTOTAL	Median	Std. Dev.	Observ
RPTSALES	0.0876	0.2889	0.0038	0.2303	658
RPTPURCHASES	0.1164	0.3839	0.0071	0.3079	658
RPTLENDING	0.0308	0.1016	0.0069	0.0557	658
RPTLIABILITIES	0.0511	0.1685	0.0144	0.1452	658

Panel C. RPTs based on the status of related party

RPTs TYPE	Mean	% of RPTTOTAL	Median	Std. Dev.	Observ
RPTPERSON	0.0098	0.0323	0.0013	0.0934	658
RPTENTITY	0.2934	0.9677	0.0940	0.4762	658

Panel D. RPTs entity based on the nature of relationship

RPTs TYPE	Mean	% of RPTTOTAL	Median	Std. Dev.	Observ
RPTENTITY_SH	0.0624	0.2127	0.0002	0.1926	658
RPTENTITY_ASSC	0.0312	0.1063	0.0000	0.1137	658
RPTENTITY_OAFF	0.1998	0.6810	0.0410	0.3907	658

Meanwhile, RPTs based on the status of related party that are addressed in this study include RPTs undertaken by the firm with related individuals or related persons (RPTPERSON) and the RPTs undertaken by the firm with related entities (RPTENTITY). The descriptive statistics of RPTPERSON and RPTENTITY are shown in the Table 5.2 Panel C. On average, the total amount of RPTs performed by the sample firms with persons or individuals related with the firms (RPTPERSON) is 0.0098 (0.98%) of the total assets at the end of the year, which in percentage terms, is 0.0323 (3.23%) of RPTTOTAL. The average total amount of transactions undertaken by the sample firms with their related entities scaled by the total asssets (RPTENTITY) is 0.2934 (29.34%), which in percentage terms, is 0.9677 (96.77%) of RPTTOTAL. Thus, the data shows that the sample firms engage more in RPTs with related entities than with related persons or related individuals.

Since most of the sample firms engage in RPTs with related entity, this study also examines this relationship by sub-categorising RPTs entity based on the nature of the relationship. They include transactions with entities that own the firm's shares or RPTs shareholders (RPENTITY_SH), transactions with associates and joint firms (RPTENTITY_ASSC) as well as transactions with entities other than these refered to as other affiliates (RPTENTITY_OAFF). A more detailed examination of related entity cannot be done in this study due to the lack of detailed disclosure concerning the nature of the relationship between the firm and related entities. The descriptive

statistics of RPTs with related entity based on the nature of the relationship are presented in Table 5.2 Panel D. The average of RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF are 0.0624 (6.24%), 0.0312 (3.12%), and 0.1928 (19.28%) of the total assets, respectively, which in terms of percentage, are 0.2127 (21.27%), 0.1063 (10.63%), and 0.6810 (68.10%) of RPTENTITY, respectively. Hence, it is observed that the sample firms are most likely to undertake RPTs with entities other than shareholders and associates and joint firms, being the sample firms categorised as other affiliates.

Three firm characteristics are addressed in this study: the size of the firm (FSIZE); leverage (LEV); and growth (GROWTH). The size of the sample firms ranges from IDR 8,820 million to IDR 214,000,000 million (equivalent to AUD 0.88 million to AUD 21,263.57 million with the exchange rate of IDR 10,064.16 for AUD 1 at 31 December 2015), with an average IDR 9,440,000 million (equivalent to AUD 937.98 million with an exchange rate of IDR 10,064.16 for AUD 1 at 31 December 2015). Leverage of the sample firms ranges between 0.0004 (0.04%) and 2.9981 (299.81%) of the total assets, with an average debt of 0.5162 (51.62%). It is found that the leverage of four sample firms (APOL, BNBR, BTEL and SMMT) is higher than 1, which shows that their total liabilities are more than their total assets or the firms possess negative equity in 11 firm-years. The growth of sample firms ranges between -0.8206 (-82.06%) and 8.8600 (886.00%), with an average growth rate of 0.2310 (23.10%). Some sample firms are found to have a negative growth rate and others show a positive growth rate, including growth rate more than 1 in some sample firms. The descriptive statistics of firm characteristics variables are presented in Table 5.3.

Table 5.3 Descriptive Statistics for Firm Characteristics Variables

Variable	Mean	Median	Max	Min	Std. Dev.	Number of Observations
FSIZE (milion IDR)*	9,440,000	3,510,000	214,000,000	8,820	19,600,000	658
LEV	0.5162	0.5202	2.9981	0.0004	0.2639	658
GROWTH	0.2310	0.1545	8.8600	-0.8206	0.5175	658

*The natural logarithm is applied in regression

5.3 Correlation Analysis

Correlation analysis is carried out to describe the degree of linear relationship between two variables (Ramsey & Schafer 2013). This study employs the Spearman rank-order correlation in the correlation analysis, which is found to be appropriate since it does not need to consider, nor

does it make any assumptions about the frequency distribution of the variables. Results of the Spearman rank-order correlation analysis are presented in Table 5.4.

ROA is found to have a significant positive correlation with other firm performance measurement (CFO and TQ). In other words, other firm performance measurements can serve as alternatives for firm performance measurement.

All measurements of firm performance (ROA, CFO and Tobin's Q) are found to have a significant positive correlation with the total size of RPTs (RPTTOTAL), RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs persons (RPTPERSON), RPTs entitiy (RPTENTITY), and RPTs other affiliates (RPTENTITY_OAFF), except for Tobin's Q, which is found to have a significant positive correlation only with RPTLIABILITIES while ROA and CFO are found to have a significant positive correlation with RPTENTITY_SH. These correlation results show that firms with higher total size of RPTs, RPTs sales, RPTs purchases, RPTs person, RPTs entity and RPTs other affiliates are associated with higher firm performance measured with ROA, CFO and Tobin's Q, while firms with higher RPTs liabilities are associated with higher Tobin's Q, and firms with higher RPTENTITY_SH are associated with higher firm performance measured with ROA and CFO.

On the other hand, ROA and CFO are found to have a significant negative correlation with RPTs with associates and joint firms (RPTENTITY_ASSC) while Tobin's Q is found to have a significant negative correlation with RPTs lendings. These results suggest that firms with higher RPTENTITY_ASSC are associated with lower firm performance measured with ROA and CFO whereas firms with higher RPTs lendings are associated with lower Tobin's Q.

Firm performance (ROA, CFO and Tobin's Q) is found to have a significant positive correlation with the size of the firms (FSIZE) but significant negative correlation with leverage (LEV). This indicates that larger firms are associated with higher performance measured with ROA, CFO and Tobin's Q, while firms with higher liabilities are associated with lower firm performance measured with ROA, CFO and Tobin's Q. Meanwhile, ROA is found to have a significant positive correlation with GROWTH, while CFO and Tobin's Q are found to have insignificant negative correlation and insignificant positive correlation with GROWTH, respectively, indicating that firms with higher growth are associated with higher firm performance measured with ROA.

Table 5.4 Spearman Rank-Order Correlation Matrices for RPTs, Firm Characteristics and Firm Performance

Variables	ROA	CFO	Tobin's Q	RPT TOTAL	RPT SALES	RPTPURCHASES	RPTLENDING	RPTLIABILITIES	RPTPERSON	RPTENTI-TY	RPTENTITY_SH	RPTENTITY_ASSC	RPTENTITY_OAFF	FSIZE	LEV
ROA	1														
CFO t-statistic	0.5939*** (18.9074)	1													
TQ t-statistic	0.5553*** (17.1028)	0.4411*** (12.5873)	1												
RPTTOTAL t-statistic	0.2688*** (7.1475)	0.1429*** (3.6969)	0.1354*** (3.5014)	1											
RPTSALES t-statistic	0.3267*** (8.8529)	0.1680*** (4.3653)	0.1475*** (3.8193)	0.6469*** (21.7294)	1										
RPTPURCHASES t-statistic	0.4512*** (12.9487)	0.2452*** (6.4766)	0.2835*** (7.5721)	0.6410*** (21.3911)	0.4683*** (13.5749)	1									
RPTLENDING t-statistic	0.0261 (0.6674)	-0.0285 (-0.7299)	-0.1046*** (-2.6951)	0.5748*** (17.9924)	0.5719*** (17.8570)	0.1276*** (3.2945)	1								
RPTLIABILITIES t-statistic	0.0050 (0.1269)	0.0068 (0.1745)	0.0778** (1.9984)	0.7218*** (26.7091)	0.2878*** (7.6956)	0.3872*** (10.7563)	0.2867*** (7.6648)	1							
RPTPERSON t-statistic	0.1818*** (4.7354)	0.1318*** (3.4062)	0.2618*** (6.9473)	0.2132*** (5.5889)	0.1652*** (4.2890)	0.2988*** (8.0202)	0.1443*** (3.7356)	0.0798** (2.0495)	1						
RPTENTITY t-statistic	0.2768*** (7.3778)	0.1460*** (3.7792)	0.1172*** (3.0214)	0.9897*** (177.3228)	0.6565*** (22.2905)	0.6316*** (20.8670)	0.5825*** (18.3550)	0.7157*** (26.2451)	0.1502*** (3.8921)	1					
RPTENTITY_SH t-statistic	0.1607*** (4.1696)	0.1638*** (4.2534)	0.0499 (1.2799)	0.4001*** (11.1831)	0.2653*** (7.0464)	0.2555*** (6.7679)	0.2242*** (5.8909)	0.3718*** (10.2589)	0.0241 (0.6162)	0.4076*** (11.4312)	1				
RPTENTITY_ASSC t-statistic	-0.0770** (-1.9786)	-0.1572*** (-4.0761)	-0.0097 (-0.2495)	0.1148*** (2.9611)	0.1417*** (3.6668)	-0.0855*** (-2.1984)	0.3229*** (8.7378)	0.1295*** (3.3451)	0.0881** (2.2648)	0.1241*** (3.2043)	-0.1202*** (-3.1020)	1			
RPTENTITY_OAFF t-statistic	0.2720*** (7.2381)	0.1658*** (4.3054)	0.1310*** (3.3851)	0.8088*** (35.2256)	0.6005*** (19.2325)	0.5691*** (17.7254)	0.5427*** (16.5498)	0.5391*** (16.3928)	0.1238*** (3.1954)	0.8213*** (36.8787)	0.1629*** (4.2299)	-0.0374 (-0.9588)	1		
FSIZE t-statistic	0.2105*** (5.5143)	0.1899*** (4.9545)	0.2722*** (7.2439)	-0.0544 (1.3941)	0.1127*** (2.9038)	0.0296 (0.7578)	-0.0517 (-1.3260)	-0.0675* (-1.7327)	-0.0119 (-0.3051)	-0.0265 (-0.6780)	-0.2520*** (-6.6708)	0.3128*** (8.4335)	0.0535 (1.3740)	1	
LEV t-statistic	-0.3477*** (-9.4976)	-0.1891*** (-4.9325)	-0.2256*** (-5.9310)	-0.0175 (-0.4477)	-0.1835*** (-4.7814)	-0.0585 (-1.5000)	-0.0328 (-0.8418)	0.2028*** (5.3035)	-0.0474 (-1.2148)	-0.0220 (-0.5624)	-0.1845*** (-4.8070)	0.0096 (0.2454)	0.0385 (0.9877)	-0.0017 (-0.0429)	1
GROWTH t-statistic	0.1439*** (3.7232)	-0.0130 (-0.3329)	0.0555 (1.4224)	-0.0230 (-0.5881)	-0.0032 (-0.0812)	-0.0469 (-1.2032)	-0.0112 (-0.2861)	0.0161 (0.4116)	-0.0971** (-2.4988)	-0.0238 (-0.6094)	-0.0036 (-0914)	0.0459 (1.1776)	-0.0200 (-0.5122)	0.1166*** (3.0073)	0.0152 0.3890

*** significant at 1%, ** significant at 5%, * significant at 10%

The correlations between one RPTs variable and another, as well as between RPTs variable and firm characteristics variables, are found as either significant positive or significant negative. Their correlations are in a range 0.0675 to 0.9897. The high correlation between one RPTs variable and another indicates that an RPTs variable can serve as an alternative proxy for the other RPTs variable.

In addition, the correlation between independent variables can also detect the problem of multicollinearity. Multicollinearity may occur when the correlation is higher than 0.80 (Gujarati 2003). The high correlation among the RPTs variables, as presented in Table 5.4, does not create the multicollinearity problem since the regression of various types of RPTs variables are carried out separately. The correlation between one RPTs variable and another that are regressed together is also found to be lower than 0.80 in a range of 0.1202 to 0.4683. Hence, correlations among the independent variables do not exceed the threshold value for multicollinearity.

5.4 Trend Analysis

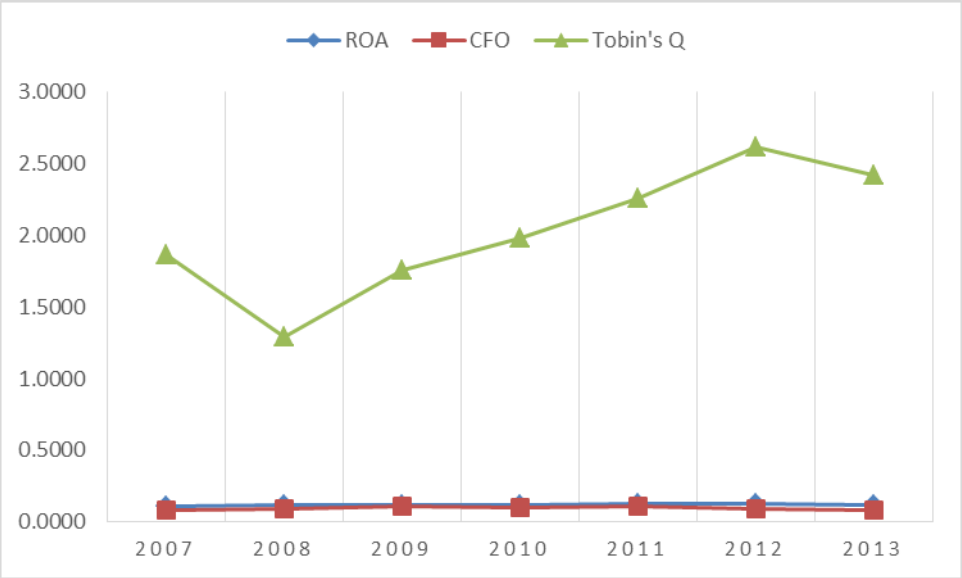
Further exploration of firm performance and RPTs is carried out using trend analysis as preliminary analysis. In this study, trend analysis is performed to determine the trend of firm performance and RPTs of the sample firms over time (from 2007 to 2013) to illustrate that the firms have almost similar performance and RPTs. In addition, the trend analysis is done to justify the usage of the fixed effects method in the regression analysis. The mean comparison of firm performance over time (from 2007 to 2013) for the sample firms is presented in Table 5.5. The mean comparison of the various types of RPTs over time is presented in Table 5.6 and Table 5.7.

Table 5.5 and Figure 5.1 show that the mean of ROA increases from 2007 to 2012, with a slight decrease in 2010, and then decreases in 2013. The trend of CFO is similar to ROA. CFO increases from 2007 to 2009, slight declines in 2010, upturns in 2011 to 2012, and goes down again in 2013. On the other hand, the mean of Tobin's Q decreases in 2008 (crisis period), and increases from 2009 to 2012, then decreases again in 2013. Overall, firm performance shows an increasing trend from 2007 to 2013, with a slight decrease ROA and CFO in 2010, and substantial decrease for Tobin's Q in 2008 when the economic crisis occurred, after which all measures rebound until 2012, and then decrease in 2013.

Table 5.5 Mean Comparison of Firm Performance from 2007 to 2013

Year	ROA	CFO	Tobin's Q
2007	0.1107	0.0797	1.8599
2008	0.1124	0.0919	1.2882
2009	0.1158	0.1066	1.7553
2010	0.1129	0.0955	1.9813
2011	0.1230	0.1046	2.2582
2012	0.1291	0.0886	2.6139
2013	0.1197	0.0812	2.4168

Figure 5.1 Trend of Firm Performance (ROA, CFO and Tobin's Q) from 2007 to 2013

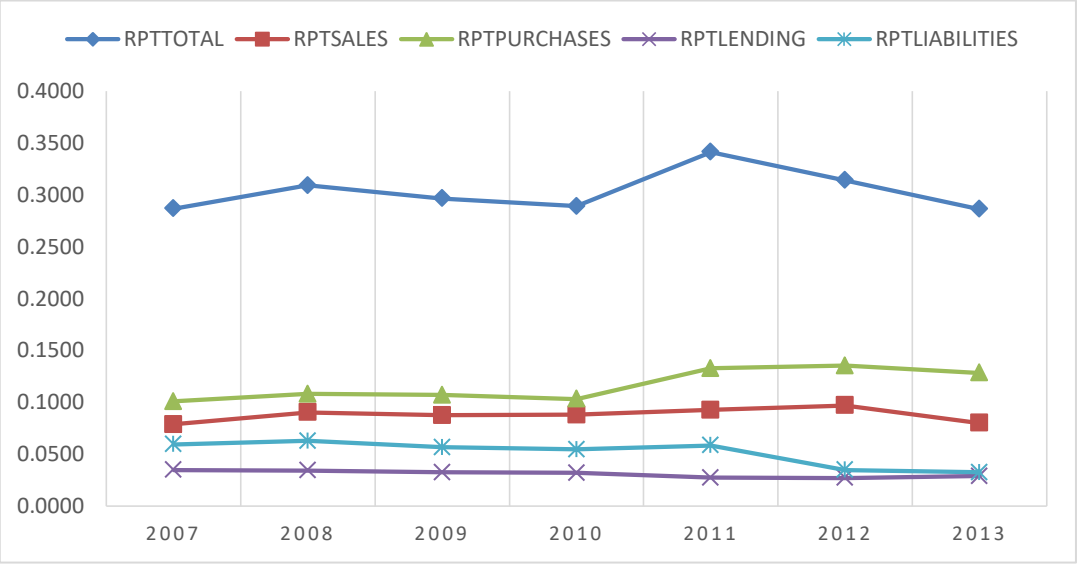


The means of the RPTs total size (RPTTOTAL) fluctuate from 2007 to 2013, with an increase in 2008, decrease from 2009 to 2010, increase in 2011, and further decrease in 2012 and 2013. The means of several types of RPTs displaye various trends. The mean of RPTSALES has a slightly increasing trend from 2007 to 2013, with an upsurge in 2008, drop in 2009, rising again in 2010 to 2012, then decreasing again in 2013. The mean of RPTPURCHASES also shows an increasing trend from 2007 to 2013, rising in 2008, then decreasing in 2009 and 2010, increasing in 2011 and 2013, then dropping again in 2013. The means of RPTLENDING and RPTLIABILITIES show slightly decreasing trends. The means and trends of total size of RPTs (RPTTOTAL) and various types RPTs based on the nature of transactions (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) from 2007 to 2013 are presented in Table 5.6 and Figure 5.2.

Table 5.6 Mean Comparison of RPTs Based on the Nature of the Transaction from 2007 to 2013

Year	RPTTOTAL	RPTSALES	RPTPURCHASES	RPTLENDING	RPTLIABILITIES
2007	0.2866	0.0787	0.1007	0.0346	0.0592
2008	0.3089	0.0901	0.1080	0.0341	0.0626
2009	0.2964	0.0873	0.1070	0.0324	0.0564
2010	0.2889	0.0878	0.1031	0.0317	0.0545
2011	0.3411	0.0926	0.1325	0.0272	0.0583
2012	0.3140	0.0968	0.1352	0.0269	0.0347
2013	0.2862	0.0798	0.1283	0.0286	0.0323

Figure 5.2 Trend of Total Size of RPTs and RPTs Based on the Nature of the Transaction from 2007 to 2013

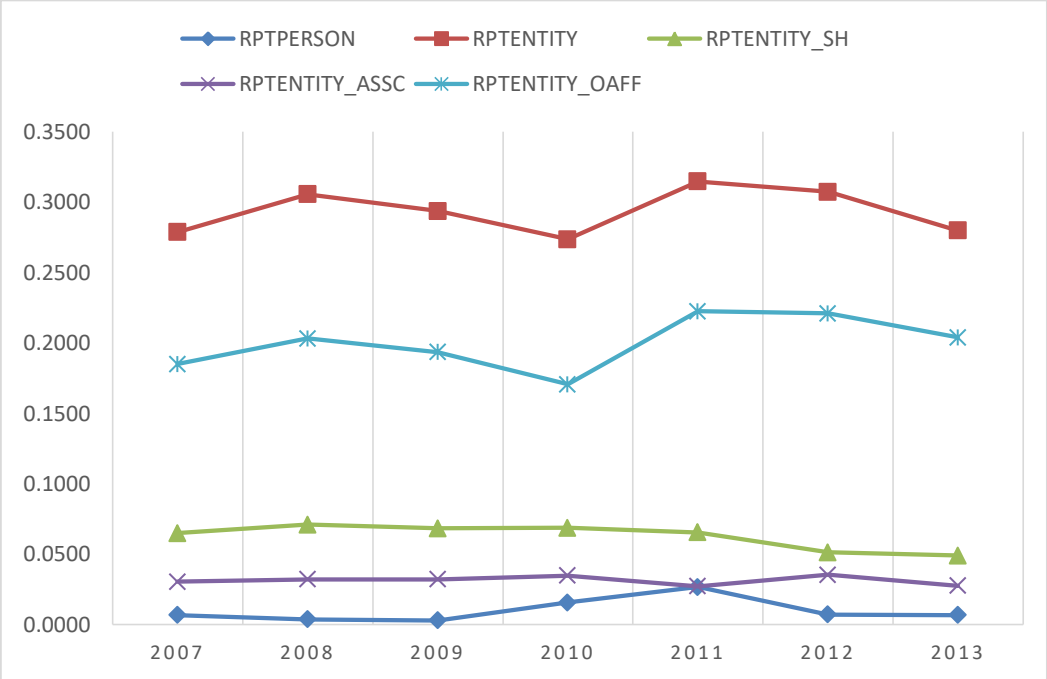


The trends of the means of various types of RPTs based on the status of related party and RPTs entity based on the nature of the relationship from 2007 to 2013 vary as shown in Table 5.7 and Figure 5.3. The means of RPTENTITY and RPTENTITY_OAFF indicate similar trends, fluctuating from 2007 to 2013, with an increase in 2008, decrease in 2009 and 2010, further increase in 2011, and a return to decrease in 2012 and 2013. The mean of RPTs person (RPTPERSON) also fluctuates from 2007 to 2013, with decreases in 2007 to 2009, increases in 2010 and 2011, and further decreases in 2012 and 2013. The mean of RPTENTITY_SH displays a slightly decreasing trend from 2007 to 2013, moving upward in 2008, declining in 2009, increasing again in 2010, and then falling in 20011 to 2013. However, the mean of RPTENTITY_ASSC shows a flat trend from 2007 to 2013 within a range of 2.70% to 3.52% of the total assets, with a little slump in 2011 and 2013.

Table 5.7 Mean Comparison of RPTs Based on the Status of Related Party and RPTs Entity Based on the Nature of the Relationship from 2007 to 2013

Year	RPTPERSON	RPTENTITY	RPTENTITY_SH	RPTENTITY_ASSC	RPTENTITY_OAFF
2007	0.0066	0.2785	0.0647	0.0303	0.1849
2008	0.0035	0.3055	0.0707	0.0319	0.2029
2009	0.0028	0.2936	0.0682	0.0320	0.1934
2010	0.0155	0.2734	0.0685	0.0346	0.1704
2011	0.0265	0.3146	0.0652	0.0270	0.2224
2012	0.0069	0.3071	0.0511	0.0352	0.2208
2013	0.0065	0.2797	0.0488	0.0273	0.2037

Figure 5.3 Trend of RPTs Based on the Status of Related Party and RPTs Entity Based on the Nature of the Relationship from 2007 to 2013



5.5 Optimum Method Selection Results

The results of the optimum method selection to examine the relationship between RPTs and firm performance are as follow. Selection of the optimum method from the OLS method, FE method and RE method follows the procedures described in Chapter 4. The results of redundant fixed effects test or F-test and Hausman test to choose the optimum method in analysing the relationship between RPTs and firm performance where firm performance measurements (ROA,

CFO and Tobin's Q) as dependent variables and RPTs and firm characteristics as independent variables are presented in Panels A, B, C and D of Table 5.8, respectively.

Redundant fixed effects test or F-test is employed in determining the better method between the OLS method and the FE method. The F-statistic for all the equation models for RPTs with ROA as dependent variables are found to be significant at 1% level (as shown in Table 5.8). These results suggest that the FE method is better than the OLS method. In addition, the Hausman test is applied to select the more appropriate method between the FE method and the RE method. The Hausman-test reveals that the FE method is better for several regression equations with the RE method indicated as the optimum method for the remaining equation models.

For the first equation with RPTTOTAL and firm characteristics variables as independent variables and ROA as the dependent variable, the redundant fixed effects test is applied as the first test to choose between the OLS method and FE method. The F-statistic of redundant fixed effects test describes that significance at the 1% level is attained, suggesting that the FE method is better than the OLS method. Then, the Hausman test is applied as the second test to determine the better method between the FE method and RE method. The Hausman test result for RPTTOTAL shows significance at the 10% level. Since this study applies confidence level at 5%, the Hausman test result indicates that the RE method is better than the FE method. Thus, the RE method is found to be the optimum method for the first regression equation with RPTTOTAL and firm characteristics variables as the independent variables, and ROA as the dependent variable.

By applying the same technique to the other regression equations, it is found that for ROA as dependent variable, the FE method is the optimum method for regression equations with RPTPURCHASES, RPTLENDING, RPTPERSON, RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF, and RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF) combined and together with firm characteristics variables as the independent variables. The RE method is the optimum method for regression equations with RPTTOTAL, RPTSALES, RPTLIABILITIES, RPTSALES and RPTPURCHASES combined, RPTLENDING and RPTLIABILITIES combined, RPTENTITY, RPTPERSON and RPTENTITY combined, together with firm characteristics variables as independent variables.

For CFO as the dependent variable, the RE method is found to be the optimum method for regression equations with RPTLIABILITIES and RPTLENDINGS and RPTLIABILITIES combined, together with firm characteristics as the independent variables, while the FE method is found to be the optimum method for the remaining equations. For Tobin's Q as the dependent variable, the FE method is found to be the optimum method for regression equations with RPTLIABILITIES, RPTLENDINGS and RPTLIABILITIES combined, RPTPERSON, RPTENTITY, RPTPERSON and

RPTENTITY combined, and RPTENTITY_OAFF, and together with firm characteristics variables as the independent variables. Meanwhile, the RE method is the optimum method for regression equations with RPTTOTAL, RPTSALES, RPTPURCHASES, RPTLENDINGS, RPTSALES and RPTPURCHASES combined, RPTENTITY_SH, RPTENTITY_ASSC, and RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF) combined, and together with firm characteristics variables as the independent variables.

The LM-test is not needed for this study because the optimum method can be chosen by applying redundant fixed effects and Hausman test results.

Overall, this study applies the FE method in regression analysis to examine the relationship between RPTs and firm performance, since the method addresses dummy variables to explain the impacts of omitted variables that are particular to each cross-sectional unit and remain constant over time. It also deals with effects that are specific to each time period and the same for all cross-sectional units (Hsiao, 2014). In addition, 26 out of 42 regression equations are found to show the FE method as the optimum method. Furthermore, the FE method provides higher adjusted-R squares compared to the RE method.

Table 5.8 Optimum Method Selection Result for Examining the Relationship between RPTs and Firm Performance (ROA, CFO and Tobin's Q)

Panel A. Total size of RPTs

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
1	RPTTOTAL	15.7154 ***	7.9798 *	RE	10.7393 ***	11.4456 **	FE	12.7917 ***	9.0563 *	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B. RPTs based on the nature of the transactions

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
2	RPTSALES	16.1654 ***	8.7635 *	RE	10.6886 ***	12.2251 **	FE	12.8580 ***	9.1937 *	RE
3	RPTPURCHASES	15.8413 ***	10.2905 **	FE	10.8642 ***	11.3183 **	FE	12.8299 ***	8.9065 *	RE
4	RPTSALES & RPTPURCHASES combined	15.8763 ***	9.1317	RE	10.6786 ***	12.2426 **	FE	12.8100 ***	8.9758	RE
5	RPTLENDINGS	16.2129 ***	10.6722 **	FE	10.8723 ***	11.7136 **	FE	12.7775 ***	9.2399 *	RE
6	RPTLIABILITIES	15.9940 ***	8.9066 *	RE	10.6507 ***	8.3378 *	RE	12.3542 ***	12.8765 **	FE
7	RPTLENDINGS & RPTLIABI LITIES combined	16.0471 ***	9.5694 *	RE	10.6494 ***	8.7821	RE	12.2525 ***	12.8383 **	FE

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 5.8 contd.

Panel C. RPTs based on the status of related party

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
8	RPTPERSON	16.0741 ***	10.1117 **	FE	10.7381 ***	14.4648 ***	FE	12.5754 ***	13.4908 ***	FE
9	RPTENTITY	15.7635 ***	8.3853 *	RE	10.7711 ***	11.2011 **	FE	12.8599 ***	9.5194 **	FE
10	RPTPERSON & RPTENTITY combined	15.6821 ***	8.1323	RE	10.6505 ***	14.2344 **	FE	12.5436 ***	13.4491 **	FE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D. RPTs entity based on the nature of the relationship

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
11	RPTENTITY_SH	15.8595 ***	10.7489 **	FE	10.6008 ***	9.8999 **	FE	12.8074 ***	8.6238 *	RE
12	RPTENTITY_ASSC	16.5734 ***	16.2166 **	FE	10.4093 ***	14.0330 ***	FE	12.7879 ***	9.2910 *	RE
13	RPTENTITY_OAFF	15.7808 ***	9.4964 **	FE	10.7849 ***	11.9733 **	FE	12.8829 ***	9.6741 **	FE
14	RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF combined	15.9538 ***	16.2585 **	FE	10.1103 ***	12.8775 **	FE	12.7296 ***	9.1358	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

5.6 Statistical Validity Test

Some statistical validity tests are carried out to verify the assumptions in the multiple regression, including normality autocorrelation, heteroskedasticity and multicollinearity.

5.6.1 Normality Test

One of the assumptions in multiple regression is that the error term of regression has normal distribution. The error term has normal distribution if it has a zero mean and constant variance to compare the estimated and actual value of the population. This study applies the Central Limit Theorm. Central Limit Theorem states that when the sample size is large, the error term is more likely to be normal (Takezawa 2014). Since this study uses 658 observations (Model 1 to Model 14 for RPTs and firm performance), the Central Limit Theorem can be applied to overcome the issue in normality.

5.6.2 Autocorrelation Test

Another assumption in multiple regression is that the observations of error terms are uncorrelated with each other. When autocorrelation exists, the OLS estimators will be inefficient and biased. The Durbin-Watson statistic is applied to detect any autocorrelation. Values of the Durbin-Watson statistic range between 0 and 4. A Durbin-Watson d statistics value of approximately 2 indicates that autocorrelation does not exist, zero indicates a perfect positive correlation, and 4 indicates a perfect negative correlation. The table of Durbin-Watson d statistics provides specific critical values for levels of significance at 1% and 5%. This study applies significance at the 5% level with n = 650 for firm performance measured with ROA, CFO and Tobin's Q as the dependent variables. Winarno (2007) suggests that if a Durbin-Watson d statistic value is between 1.54 and 2.46, the autocorrelation problem is not a threat.

The Durbin-Watson d statistics of the regression models in this study are presented in Table 5.9. Most of the Durbin-Watson d statistics are found to be outside the lower critical value (dL) and upper critical value (dU), indicating that there is an autocorrelation problem. Autocorrelation does not exist in Equation Model 4 and Equation Model 6 with ROA as the dependent variable since they are in the range of dL and dU. This study then adopts panel Generalized Least Square (GLS) to solve the autocorrelation issue in panel regression. The GLS model accomodates the nature of autocorrelation and heteroscedasticity in the estimation by converting the variables with each firm weight (Winship -; Wooldridge 2006).

Table 5.9 Autocorrelation Test Results

Panel A. Total size of RPTs

No	Equation Model	Durbin-Watson *d* Statistic			K include intercept	Critical Value n=650	
		ROA	CFO	Tobin's Q		dL	dU
1	RPTTOTAL	1.8400	2.1342	1.1473	5	1.8588	1.8835

Panel B. RPTs based on the nature of the transaction

No	Equation Model	Durbin-Watson *d* Statistic			K include intercept	Critical Value n=650	
		ROA	CFO	Tobin's Q		dL	dU
2	RPTSALES	1.8377	2.1356	1.1468	5	1.8588	1.8835
3	RPTPURCHASES	1.8523	2.1369	1.1479	5	1.8588	1.8835
4	RPTSALES & RPTPURCHASES combined	1.8395	2.1386	1.1477	6	1.8557	1.8867
5	RPTLENDING	1.8699	2.1325	1.1494	5	1.8588	1.8835
6	RPTLIABILITIES	1.8439	2.1444	1.1476	5	1.8588	1.8835
7	RPTLENDING & RPTLIABILITIES combined	1.8639	2.1432	1.1504	6	1.8557	1.8867

Panel C. RPTs based on the status of related party

No	Equation Model	Durbin-Watson *d* Statistic			K include intercept	Critical Value n=650	
		ROA	CFO	Tobin's Q		dL	dU
8	RPTPERSON	1.8494	2.1350	1.1676	5	1.8588	1.8835
9	RPTENTITY	1.8449	2.1337	1.1477	5	1.8588	1.8835
10	RPTPERSON & RPTENTITY combined	1.8414	2.1353	1.1675	6	1.8557	1.8867

Panel D. RPTs entity based on the nature of the relationship

No	Equation Model	Durbin-Watson *d* Statistic			K include intercept	Critical Value n=650	
		ROA	CFO	Tobin's Q		dL	dU
11	RPTENTITY_SH	1.8510	2.1405	1.1490	5	1.8588	1.8835
12	RPTENTITY_ASSC	1.7822	2.1336	1.1460	5	1.8588	1.8835
13	RPTENTITY_OAFF	1.8546	2.1353	1.1476	5	1.8588	1.8835
14	RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF combined	1.7873	2.1412	1.1483	7	1.8525	1.8898

5.6.3 Heteroskedasticity Test

The other assumption in multiple regression is that the error term has a constant variance or is homoskedastic. In other words, there is no heteroskedasticity. If the error term variance is not constant, the assumption is violated leading to the heteroskedasticity problem (Verbeek 2004; Wooldridge 2006). This study uses panel data. The nature of panel data, which combines cross-sectional and time-series, may bring about a heteroskedasticity problem, hence heteroskedasticity may exist. In addition, the presence of outliers may also result in heteroskedastity.

This study employs the Lagrange Multiplier (LM) Breusch-Pagan test to detect the existence of heteroskedasticity, which is appropriate due to its greater applicability (Wooldridge 2006). The test is carried out by taking the residuals and auxiliary regression and then calculating the Chi-square value. The null hypothesis of this test is that there is no heteroskedasticity. The null hypothesis is rejected if the calculated Chi-square value is higher that the critical Chi-square value. This study applies Chi-square critical value at the 5% level of significance and degree of freedom based on the number of independent variables, excluding the constant and error term.

The results of the LM Breusch-Pagan test for fixed effects model are presented in Table 5.10 and show that the value are higher than Chi-square critical value at 5% level of significance. Thus, the null hypothesis is rejected, showing that the heteroskedasticity problem occurs. The GLS is then applied in fixed effects models to correct the problem.

5.6.4 Multicollinearity Test

The correlations between one RPTs variable and another RPTs variable and between RPTs variable and firm characteristics variables, are found to be significantly positive and significantly negative. The Spearman rank-order correlation of the independent variables (refer Table 5.4) are in the range of 0.0675 to 0.9897. Multicollinearity may occur when the correlation is higher than 0.80 (Gujarati 2003). A high correlation among the RPTs variables may not create a multicollinearity problem since the regression of various types of RPTs variables are individually carried out. The correlations between one RPTs variable and another RPTs variable that are simultaneously regressed are also found to be lower than 0.80 in a range of 0.1202 to 0.4683. Hence, correlations among the independent variables do not exceed the threshold to increase a multicollinearity problem.

In addition, results of the variation inflation factor (VIF) test (Table 5.11) show that the VIF for all equation models are more than 0 and less than 5, indicating that the multicollinearity problem does not exist. The highest VIF is 0.3191 in equation for RPTENTITY_ASSC, with Tobin's Q as the dependent variable. The VIF result is consistent with the correlation matrix to detect the presence of multicollinearity problem.

Table 5.10 LM Breusch-Pagan Test Results

Panel A. Total size of RPTs on Firm Performance (ROA, CFO and Tobin's Q)

No	Equation Model	ROA		H_0	CFO		H_0	Tobin's Q		H_0	df	Chi-square critical value
		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat			
1	RPTTOTAL	0.2872	188.9776	Rejected	0.2660	175.0280	Rejected	0.3664	241.0912	Rejected	4	9.4877

Panel B. RPTs based on the nature of the transaction on Firm Performance (ROA, CFO and Tobin's Q)

No	Equation Model	ROA		H_0	CFO		H_0	Tobin's Q		H_0	df	Chi-square critical value
		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat			
2	RPTSALES	0.3078	202.5324	Rejected	0.2660	175.0280	Rejected	0.3681	242.2098	Rejected	4	9.4877
3	RPTPURCHASES	0.2861	188.2538	Rejected	0.2654	174.6332	Rejected	0.3672	241.6176	Rejected	4	9.4877
4	RPTSALES & RPTPURCHASES combined	0.3082	202.7956	Rejected	0.2658	174.8964	Rejected	0.3673	241.6834	Rejected	5	11.0705
5	RPTLENDING	0.2966	195.1628	Rejected	0.2687	176.8046	Rejected	0.3678	242.0124	Rejected	4	9.4877
6	RPTLIABILITIES	0.2802	184.3716	Rejected	0.2662	175.1596	Rejected	0.3633	239.0514	Rejected	4	9.4877
7	RPTLENDING & RPTLIABILITIES combined	0.2916	191.8728	Rejected	0.2689	176.9362	Rejected	0.3630	238.8540	Rejected	5	11.0705

Panel C. RPTs based on the status of related party on Firm Performance (ROA, CFO and Tobin's Q)

No	Equation Mode;	ROA		H_0	CFO		H_0	Tobin's Q		H_0	df	Chi-square critical value
		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat			
8	RPTPERSON	0.2909	191.4122	Rejected	0.2743	180.4894	Rejected	0.3521	231.6818	Rejected	4	9.4877
9	RPTENTITY	0.2874	189.1092	Rejected	0.2660	175.0280	Rejected	0.3683	242.3414	Rejected	4	9.4877
10	RPTPERSON & RPTENTITY simultaneously	0.2884	189.7672	Rejected	0.2744	180.5552	Rejected	0.3525	231.9450	Rejected	5	11.0705

Table 5.10 contd.

Panel D. RPTs entity based on the nature of the relationship on Firm Performance (ROA, CFO and Tobin's Q)

No	Equation Model	ROA		H_0	CFO		H_0	Tobin's Q		H_0	df	Chi-square critical value
		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat		Auxiliary regression R^2	LM-stat			
11	RPTENTITY_SH	0.2860	188.1880	Rejected	0.2656	174.7648	Rejected	0.3661	240.8938	Rejected	4	9.4877
12	RPTENTITY_ASSC	0.3382	222.5356	Rejected	0.2691	177.0678	Rejected	0.3680	242.1440	Rejected	4	9.4877
13	RPTENTITY_OAFF	0.2844	187.1352	Rejected	0.2658	174.8964	Rejected	0.3675	241.8150	Rejected	4	9.4877
14	RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF combined	0.3383	222.6014	Rejected	0.2686	176.7388	Rejected	0.3659	240.7622	Rejected	6	12.5916

Table 5.11 VIF Test Results

Panel A. RPTTOTAL on firm performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 1					
	ROA		CFO		Tobin's Q	
	Coef	VIF	Coef	VIF	Coef	VIF
RPTTOTAL	0.0202	0.0030	-0.0010	0.0081	0.0516	0.0013
FSIZE	0.0004	0.0042	-0.0074	0.0140	0.3008	0.0027
LEVERAGE	-0.0948	0.0030	-0.0498	0.0029	0.3335	0.0006
GROWTH	0.0197	0.0014	0.0145	0.0007	0.1040	0.0003

Panel B. RPTSALES and RPTPURCHASES on firm performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 2						Model 3						Model 4					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF
RPTSALES	0.0346	0.0051	-0.0038	0.0067	-0.1004	0.0009							0.0333	0.0050	-0.0021	0.0067	-0.1085	0.0009
RPTPURCHASES							0.0167	0.0021	-0.0264	0.0085	0.0754	0.0018	0.0164	0.0021	-0.0262	0.0085	0.0641	0.0018
FSIZE	0.0003	0.0045	-0.0073	0.0140	0.2885	0.0027	-0.0012	0.0040	-0.0075	0.0139	0.2936	0.0027	0.0003	0.0044	-0.0074	0.0140	0.2886	0.0027
LEVERAGE	-0.0920	0.0030	-0.0501	0.0029	0.3698	0.0006	-0.0934	0.0030	-0.0513	0.0029	0.3543	0.0006	-0.0894	0.0030	-0.0511	0.0029	0.3672	0.0006
GROWTH	0.0207	0.0015	0.0145	0.0007	0.1065	0.0003	0.0195	0.0014	0.0146	0.0007	0.1048	0.0003	0.0206	0.0015	0.0145	0.0007	0.1065	0.0003

Panel C. RPTLENDING and RPTLIABILITIES on firm performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 5						Model 6						Model 7					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF
RPTLENDINGS	-0.0124	0.0018	0.0888	0.0064	-0.8527	0.0005							-0.0190	0.0019	0.0839	0.0064	-0.9052	0.0005
RPTLIABILITIES						0.0020	0.0114	0.0040	0.0784	0.0058	0.3882	0.0021	0.0117	0.0042	0.0769	0.0058	0.3849	0.0020
FSIZE	-0.0017	0.0046	-0.0063	0.0142	0.2758	0.0029	-0.0003	0.0045	-0.0069	0.0142	0.3338	0.0027	-0.0009	0.0049	-0.0062	0.0144	0.3156	0.0029
LEVERAGE	-0.0990	0.0032	-0.0495	0.0029	0.3486	0.0006	-0.1033	0.0036	-0.0748	0.0028	0.2556	0.0005	-0.1068	0.0039	-0.0735	0.0029	0.2320	0.0006
GROWTH	0.0215	0.0015	0.0146	0.0007	0.1077	0.0003	0.0199	0.0015	0.0150	0.0008	0.0925	0.0003	0.0219	0.0016	0.0150	0.0008	0.0970	0.0003

Table 5.11 contd.

Panel D. RPTPERSON and RPTENTITY on firm performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 8						Model 9						Model 10					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF
RPTPERSON	-0.0244	0.0046	-0.0121	0.0064	2.8847	0.0046							-0.0228	0.0041	-0.0123	0.0065	2.8714	0.0045
RPTENTITY							0.0217	0.0028	-0.0001	0.0080	-0.0728	0.0013	0.0217	0.0030	-0.0003	0.0080	-0.0105	0.0010
FSIZE	-0.0012	0.0041	-0.0072	0.0140	0.3611	0.0029	0.0001	0.0040	-0.0074	0.0139	0.2856	0.0027	0.0002	0.0042	-0.0072	0.0141	0.3612	0.0029
LEVERAGE	-0.0957	0.0032	-0.0464	0.0031	-0.0685	0.0008	-0.0900	0.0029	-0.0502	0.0029	0.3787	0.0006	-0.0900	0.0032	-0.0464	0.0031	-0.0636	0.0008
GROWTH	0.0199	0.0014	0.0144	0.0007	0.0889	0.0003	0.0196	0.0014	0.0145	0.0007	0.1076	0.0003	0.0199	0.0014	0.0144	0.0007	0.0883	0.0003

Panel E. RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF on firm performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 11						Model 12						Model 13						Model 14					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF	Coef	VIF
RPTENTITY_SH	-0.0376	0.0040	0.0815	0.0183	-0.3900	0.0026													-0.0392	0.0026	0.0805	0.0184	-0.4230	0.0026
RPTENTITY_ASSC							0.1659	0.0073	0.0110	0.0175	0.2075	0.0013							0.1715	0.0070	-0.0017	0.0181	0.1107	0.3191
RPTENTITY_OAFF													0.0208	0.0020	-0.0055	0.0058	-0.0100	0.0011	0.0188	0.0020	-0.0040	0.0059	-0.0018	0.0012
FSIZE	-0.0016	0.0042	-0.0064	0.0136	0.2838	0.0028	-0.0001	0.0042	-0.0073	0.0139	0.2947	0.0027	-0.0002	0.0042	-0.0075	0.0139	0.2853	0.0027	0.0006	0.0046	-0.0066	0.0137	0.2774	0.0029
LEVERAGE	-0.0946	0.0030	-0.0495	0.0029	0.3700	0.0006	-0.0996	0.0030	-0.0503	0.0029	0.3505	0.0006	-0.0900	0.0030	-0.0503	0.0029	0.3864	0.0006	-0.0928	0.0030	-0.0497	0.0029	0.3896	0.0006
GROWTH	0.0196	0.0014	0.0146	0.0007	0.1063	0.0003	0.0185	0.0014	0.0145	0.0007	0.1045	0.0003	0.0194	0.0014	0.0145	0.0007	0.1087	0.0003	0.0184	0.0014	0.0146	0.0007	0.1091	0.0003

5.7 Multiple Regression Results: RPTs and Firm Performance

After performing the statistical validity tests, the GLS fixed effects method is applied to examine the relationship between RPTs and firm performance. The results of regression for the total size of RPTs, RPTs based on the nature of the transaction, RPTs based on the status of related party, and RPTs entity based on the nature of relationship on the short-term performance (ROA and CFO) and long-term performance (Tobin's Q) are presented in Table 5.12 (Panels A to D, respectively).

The F-statistics for each model as stated in Table 5.12 are significant at the 1% level, indicating that the model is a satisfactory fit. The adjusted-R squares, which show the explanatory power of the model, are between 74% and 92% when the regression equations are carried out separately and combined. These results suggest that the RPTs and control variables as independent variables can describe the variation of firm performance measured with ROA, CFO and Tobin's Q from 74% to 92%.

Table 5.12 Panel A shows that total size of RPTs (RPTTOTAL) is found to have a significant positive relationship at the 1% level on firm performance measured with ROA, but it is found to be insignificant on firm performance measured with CFO and Tobin's Q as in Model 1 (columns 2, 3 and 4, respectively). Therefore, Hypothesis 1a is accepted. A significant positive relationship is found between total size of RPTs and firm performance measured with ROA, suggesting that firms with higher total size of RPTs have higher firm performance measured with ROA. This result is inline with the propping motive, whereby firms engage in RPTs to increase performance, and the purely economic motive, whereby firms undertake RPTs to fulfill their needs such as to gain in-depth knowledge and expertise (Gordon & Henry 2005), to align firm operation, to create strategic partnership, to share the risks, and to facilitate contracts (Kohlbeck & Mayhew 2010). This result is also consistent with the findings of Cheung, Rau and Stouraitis (2006) and Gallery, Gallery and Supranowicz (2008) that using other types of RPTs in their studies. Firms that announce RPTs cash receipt and RPTs subsidiary relationship have positive impact on firm performance measured with CARs (Cheung, Rau & Stouraitis 2006), while cash outflows to staff and related suppliers have significant positive association with firm performance measured with research and development expenditure, ending cash balance and unused financing facilities, and cash outflows other than payment to staff and related supplier; and loans to related parties have significant positive association with firm performance measured by investing cash outflows other than loans to related parties (Gallery, Gallery & Supranowicz 2008).

RPTSALES is found to have a significant positive relationship at the 10% level on firm performance measured with ROA as presented in Table 5.12 Panel A Model 2 (column 2), but it is insignificant

on firm performance measured with CFO and Tobin's Q. These relationships are similar when RPTSALES are combined regressed with RPTPURCHASES in Model 4 (column 11). Firms with higher RPTs sales seem to have higher firm performance measured with ROA. This result is in line with the propping and purely economic reason of the firms engaged in RPTs. Hence, this finding is consistent with the findings of Jian and Wong (2003); Gallery, Gallery and Supranowicz (2008); Aharony, Wang and Yuan (2010); Wong, Kim and Lo (2015); and (Hwang & Kim 2016). Jian and Wong (2003) find that RPTs sales has significant positive association with firm performance measured with CARs. Firms are involved in RPTs sales to enhance sales and to achieve efficiency in their operational activities, which result in higher returns. Similarly, Gallery, Gallery and Supranowicz (2008) find that RPTs (in the forms of cash outflows to staff and related suppliers) have significant positive association with firm performance measured with research and development expenditure, ending cash balance and unused financing facilities, and RPTs in the forms of cash outflows other than payment to staff and related supplier; and loans to related parties have significant positive association with firm performance measured by investing cash outflows other than loans to related parties. In addition, RPTs sales is revealed to have positive effects on firm performance measured with ROA and price earnings ratio in pre-IPO period, suggesting that firms using RPTs sales to increase earnings before IPO (Aharony, Wang & Yuan 2010). Abnormal RPTs sales also have positive relationship with firm performance measured with industry adjusted Tobin's Q and abnormal returns (Wong, Kim & Lo 2015). In Korean firms in which heirs become major shareholders, RPTs sales is found to have positive association with firm performance measured with marginal contribution to group control index and equity shareholding index, implying that RPTs in the form of related sales are used to support the financing and provide opportunities for them to get higher control over other firms in the business group (Hwang & Kim 2016).

The relationship between RPTPURCHASES and firm performance measured with ROA is found to be significant positive at the 10% level as presented in Table 5.12 Panel A Model 3 (column 8), but it is insignificantly negative with CFO and insignificantly positive with Tobin's Q. These relationships are consistent when RPTPURCHASES are combined regressed with RPTSALES as in Model 4 (column 11). The significant positive relationship explains that firms with higher RPTs purchases have higher firm performance measured with ROA. This finding is consistent with Jian and Wong (2003) and Gallery, Gallery and Supranowicz (2008), who find that RPTs have significant positive effects on firm performance. Similarly, this result is consistent with the findings of Chen, Y, Chen and Chen (2009) that RPTs purchases generate positive impact on firm performance measured with ROA in condition 1) and 3) of control relationship, when control relationship is differentiated in three condition: 1) there is no control relationship; 2) listed firm acts as controlling party; and 3) listed firm is controlled by related party. In addition, RPTs purchases also have significant positive relationship with firm performance measured with Tobin's Q in condition 3) of control relationship.

Table 5.12 Panel B shows that RPTLENDING have significant negative relationship at the 10% level on firm performance measured with Tobin's Q, but insignificant negative and insignificant positive relationships with ROA and CFO as presented in Model 5 (columns 2, 3 and 4, respectively). The relationships are similar when RPTLENDING are combined regressed with RPTLIABILITIES in Model 7. These results suggest that firms with higher RPTLENDING have lower firm performance measured with Tobin's Q. Investors respond negatively to firms that provide credit/loan to their related parties. This result is consistent with the findings of Jian and Wong (2003); Kang et al. (2014); Wong, Kim and Lo (2015); and Habib, Muhammadi and Jiang (2017). RPTs lending generate negative impact on firm performance measured with Tobin's Q and market-to-book ratio. Since RPTs lending are used to facilitate tunneling (Habib, Muhammadi & Jiang 2017; Jian & Wong 2003; Juliarto et al. 2013), investors respond to RPTs by reducing the share price. RPTs lending in the form of net credit to related party is also found to have a negative influence on the future firm performance measured with one year ahead of ROA and Tobin's Q (Habib, Muhammadi & Jiang 2017). Thus, the negative impact of RPTs lending on Tobin's Q is in line with tunneling motive of the firm engaging in RPTs lending. This result is also consistent with the negative impact of other types of RPTs on firm performance (Berkman, Cole & Fu 2009; Chauhan, Lakshmi & Dey 2016; Cheung, Jing, et al. 2009; Cheung, Rau & Stouraitis 2006; Du, He & Yuen 2013; Ge et al. 2010; Gordon & Henry 2005; Gordon, Henry & Palia 2004; Huyghebaert & Wang 2012; Jiang, G, Lee & Yue 2010; Kohlbeck & Mayhew 2010; Lei & Song 2011; Nekhili & Cherif 2011; Wan & Wong 2015).

Meanwhile, RPTLIABILITIES is found to be significantly positive at the 5% significance level on firm performance measured with CFO, but insignificant positive with ROA and Tobin's Q as presented in Table 5.12 Panel B Model 6. The relationship is found to be consistent when RPTLIABILITIES are combined regressed with RPTLENDING in Model 7. Firms with higher RPTLIABILITIES have higher firm performance measured with CFO. Obtaining funds through liabilities in terms of account payables, debts, or other form of liabilities from related parties enables an increase in cash flow from operations. Those funds support firm operational activities, which result in higher CFO. This result is consistent with Cheung, Rau and Stouraitis (2006) and Cheung, Jing, et al. (2009), who find that cash receipt from related parties has positive impact on firm performance. This result is also in line with the findings of Chen, Y, Chen and Chen (2009), which reveal that RPTs loan have significant positive influence on firm performance in condition 1) of control relationship (when there is no control relationship). However, firm performance in the Chen, Chen, and Chen (2009) study is measured with ROA.

These findings support Hypothesis 1b, which states that there is a significant positive relationship between RPTs based on the nature of the transaction and firm performance. RPTSALES and RPTPURCHASES have a significant positive relationship on a short-term firm performance

measured with ROA. RPTLIABILITIES has significant positive relationship with a short-term firm performance measured with CFO, and RPTLENDING has significant negative relationship on along-term firm performance measured with Tobin's Q. The negative effects may be because investors consider RPTs lending as a tool to transfer the firm resources to related parties, and they respond by reducing the share price, which results in lower Tobin's Q.

With regards to RPTs based on the status of related party, the relationship between RPTPERSON and firm performance measured with Tobin's Q is found to be significantly positive at the 1% level, but insignificantly negative with firm performance measured with ROA and CFO as presented in Table 5.12 Panel C Model 8. Their relationships are similar when combined regression with RPTENTITY is carried out as shown in Model 10. This result indicates that firms with higher RPTs person have higher firm performance measured with Tobin's Q. Investors respond positively to firms that have higher RPTs with related individuals/persons. Most RPTs person comprise transactions with key management persons in the form of benefits payments. Investors see the higher benefits payment to key management persons as a signal of better firm performance. Thus, the higher RPTs with related persons who are the key management persons in the form of benefits payment will lead to positive responses from investors.

The relationship between RPTENTITY and firm performance measured with ROA is found to be significantly positive at the 1% level, but insignificant with firm performance measured with CFO and Tobin's Q as presented in Table 5.12 Panel C Model 9. Their relationships are steady when they are regressed together with RPTPERSON in Model 10. This significant positive association suggests that firms with higher RPTs entity have higher firm performance measured with ROA. Most firms engage in RPTs with entities. The form of entity allows both the parties involved to as legal entities to undertake a contractual relationship.

Thus, Hypothesis 1c is accepted. The relationship between RPTs based on the status of related party is significantly positive on firm performance, particularly RPTs person on long-term performance and RPTs entity on short-term performance. RPTs person has a significant positive relationship on firm performance measured with Tobin's Q. Likewise, RPTs entity also has a significant positive relationship on firm performance measured with ROA.

Table 5.12 Regression Results of RPTs and Firm Performance (ROA, CFO and Tobin's Q)

Panel A. RPTTOTAL, RPTSALES and RPTPURCHASES on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 1			Model 2			Model 3			Model 4		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1452 ** (2.1985)	0.3276 ** (2.3273)	-6.8315 *** (-6.5889)	0.1500 ** (2.2298)	0.3252 ** (2.3117)	-6.4733 *** (-6.2433)	0.1942 *** (2.9898)	0.3339 ** (2.3842)	-6.6292 *** (-6.4007)	0.1466 ** (2.1873)	0.3328 ** (2.3636)	-6.4807 *** (-6.2341)
RPTTOTAL	0.0202 *** (3.1048)	-0.0010 (-0.0756)	0.0516 (0.5882)									
RPTSALES				0.0346 * (1.9271)	-0.0038 (-0.1582)	-0.1004 (-0.6516)				0.0333 * (1.8765)	-0.0021 (-0.0859)	-0.1085 (-0.6879)
RPTPURCHASES							0.0167 * (1.8897)	-0.0264 (-1.2941)	0.0754 (0.4662)	0.0164 * (1.9252)	-0.0262 (-1.2862)	0.0641 (0.3921)
FSIZE	0.0004 (0.1651)	-0.0074 (-1.5239)	0.3008 *** (8.1727)	0.0003 (0.1098)	-0.0073 (-1.5061)	0.2885 *** (7.8299)	-0.0012 (-0.5426)	-0.0075 (-1.5495)	0.2936 *** (7.9967)	0.0003 (0.1150)	-0.0074 (-1.5349)	0.2886 *** (7.8200)
LEVERAGE	-0.0948 *** (-7.8647)	-0.0498 *** (-3.5661)	0.3335 *** (3.0666)	-0.0920 *** (-7.6773)	-0.0501 *** (-3.6043)	0.3698 *** (3.3960)	-0.0934 *** (-7.6972)	-0.0513 *** (-3.6933)	0.3543 *** (3.2088)	-0.0894 *** (-7.4728)	-0.0511 *** (-3.6819)	0.3672 *** (3.3544)
GROWTH	0.0197 *** (4.6987)	0.0145 *** (4.1557)	0.1040 *** (2.7770)	0.0207 *** (4.8374)	0.0145 *** (4.1657)	0.1065 *** (2.8481)	0.0195 *** (4.5600)	0.0146 *** (4.1747)	0.1048 *** (2.7932)	0.0206 *** (4.8273)	0.0145 *** (4.1701)	0.1065 *** (2.8426)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R squares	0.9277	0.8102	0.8191	0.9314	0.8097	0.8143	0.9263	0.8103	0.8057	0.9309	0.8096	0.8115
Adjusted R squares	0.9151	0.7773	0.7878	0.9196	0.7767	0.7821	0.9135	0.7774	0.7721	0.9188	0.7762	0.7785
F-statistic	74.0220	24.6443	26.1417	78.4313	24.5630	25.3124	72.5354	24.6547	23.9453	76.8718	24.2496	24.5600
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 5.12 contd.

Panel B. RPTLENDING and RPTLIABILITIES on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 5			Model 6			Model 7		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2120 ***	0.2936 **	-6.0802 ***	0.1731 **	0.3215 **	-7.7417 ***	0.1936 ***	0.2976 **	-7.1790 ***
	(3.0634)	(2.0723)	(-5.7244)	(2.5499)	(2.2816)	(-7.4336)	(2.7214)	(2.0986)	(-6.7101)
RPTLENDING	-0.0124	0.0888	-0.8527 *				-0.0190	0.0839	-0.9052 *
	(-0.2789)	(0.9089)	(-1.8473)				(-0.4211)	(0.8618)	(-1.9350)
RPTLIABILITIES				0.0114	0.0784 **	0.3882	0.0117	0.0769 **	0.3849
				(0.4500)	(2.2014)	(1.0446)	(0.4512)	(2.1507)	(1.0428)
FSIZE	-0.0017	-0.0063	0.2758 ***	-0.0003	-0.0069	0.3338 ***	-0.0009	-0.0062	0.3156 ***
	(-0.7011)	(-1.2952)	(7.3528)	(-0.1073)	(-1.4142)	(8.9596)	(-0.3682)	(-1.2609)	(8.2828)
LEVERAGE	-0.0990 ***	-0.0495 ***	0.3486 ***	-0.1033 ***	-0.0748 ***	0.2556 **	-0.1068 ***	-0.0735 ***	0.2320 **
	(-7.9370)	(-3.5364)	(3.0818)	(-7.7040)	(-5.4417)	(2.4624)	(-7.7319)	(-5.3215)	(2.1144)
GROWTH	0.0215 ***	0.0146 **	0.1077 ***	0.0199 ***	0.0150 ***	0.0925 **	0.0219 ***	0.0150 ***	0.0970 ***
	(4.8518)	(4.1364)	(2.8742)	(4.5877)	(4.0686)	(2.5356)	(4.9110)	(4.0831)	(2.6457)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R squares	0.9250	0.8124	0.7951	0.9255	0.8102	0.8672	0.9237	0.8119	0.8486
Adjusted R squares	0.9121	0.7799	0.7596	0.9126	0.7773	0.8442	0.9103	0.7789	0.8221
F-statistic	71.2506	25.0070	22.4065	71.6813	24.6394	37.7065	69.0269	24.6219	31.9714
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. Of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 5.12 contd.

Panel C. RPTPERSON and RPTENTITY on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 8			Model 9			Model 10		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1976 ***	0.3203 **	-8.3655 ***	0.1517 **	0.3265 **	-6.3810 ***	0.1475 **	0.3215 **	-8.3667 ***
	(3.0043)	(2.2813)	(-7.7733)	(2.3524)	(2.3232)	(-6.1253)	(2.2538)	(2.2791)	(-7.7571)
RPTPERSON	-0.0244	-0.0121	2.8847 ***				-0.0228	-0.0123	2.8714 ***
	(-0.5718)	(-0.2066)	(3.3889)				(-0.5757)	(-0.2079)	(3.4058)
RPTENTITY				0.0217 ***	-0.0001	-0.0728	0.0217 ***	-0.0003	-0.0105
				(3.3333)	(-0.0100)	(-0.8143)	(3.2866)	(-0.0255)	(-0.1322)
FSIZE	-0.0012	-0.0072	0.3611 ***	0.0001	-0.0074	0.2856 ***	0.0002	-0.0072	0.3612 ***
	(-0.5363)	(-1.4852)	(9.4481)	(0.0245)	(-1.5183)	(7.7391)	(0.0902)	(-1.4887)	(9.4403)
LEVERAGE	-0.0957 ***	-0.0464 ***	-0.0685	-0.0900 ***	-0.0502 ***	0.3787 ***	-0.0900 ***	-0.0464 ***	-0.0636
	(-7.6021)	(-3.2352)	(-0.5311)	(-7.6083)	(-3.6101)	(3.4800)	(-7.2603)	(-3.2282)	(-0.4932)
GROWTH	0.0199 ***	0.0144 ***	0.0889 **	0.0196 ***	0.0145 ***	0.1076 ***	0.0199 ***	0.0144 ***	0.0883 **
	(4.5949)	(4.1095)	(2.3021)	(4.7182)	(4.1637)	(2.8793)	(4.7525)	(4.1014)	(2.2872)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R squares	0.9263	0.8109	0.7846	0.9290	0.8104	0.8118	0.9283	0.8107	0.7849
Adjusted R squares	0.9136	0.7782	0.7473	0.9167	0.7775	0.7792	0.9158	0.7775	0.7472
F-statistic	72.5991	24.7583	21.0281	75.5292	24.6725	24.8955	73.8806	24.4272	20.8123
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 5.12 contd.

Panel D. RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 11			Model 12			Model 13			Model 14		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2100 ***	0.2947 **	-6.3229 ***	0.1618 **	0.3252 **	-6.6560 ***	0.1607 **	0.3310 **	-6.3967 ***	0.1375 **	0.3000 **	-6.1483 ***
	(3.1445)	(2.1295)	(-6.0020)	(2.4848)	(2.3208)	(-6.4138)	(2.4400)	(2.3582)	(-6.1518)	(2.0401)	(2.1586)	(-5.7699)
RPTENTITY_SH	-0.0376 *	0.0815 *	-0.3900							-0.0392 ***	0.0805 *	-0.4230
	(-1.9588)	(1.6998)	(-1.2552)							(-2.5928)	(1.6730)	(-1.3620)
RPTENTITY_ASSC				0.1659 ***	0.0110	0.2075				0.1715 ***	-0.0017	0.1107
				(3.7971)	(0.1384)	(0.5504)				(4.0600)	(-0.0204)	(0.2796)
RPTENTITY_OAFF							0.0208 ***	-0.0055	-0.0100	0.0188 ***	-0.0040	-0.0018
							(3.1292)	(-0.4153)	(-0.0973)	(2.8793)	(-0.3021)	(-0.0172)
FSIZE	-0.0016	-0.0064	0.2838 ***	-0.0001	-0.0073	0.2947 ***	-0.0002	-0.0075	0.2853 ***	0.0006	-0.0066	0.2774 ***
	(-0.6917)	(-1.3492)	(7.6106)	(-0.0338)	(-1.5141)	(8.0034)	(-0.0800)	(-1.5434)	(7.7258)	(0.2563)	(-1.3761)	(7.3530)
LEVERAGE	-0.0946 ***	-0.0495 ***	0.3700 ***	-0.0996 ***	-0.0503 ***	0.3505 ***	-0.0900 ***	-0.0503 ***	0.3864 ***	-0.0928 ***	-0.0497 ***	0.3896 ***
	(-7.7244)	(-3.5837)	(3.3780)	(-8.2496)	(-3.6113)	(3.1813)	(-7.5097)	(-3.6166)	(3.5644)	(-7.7794)	(-3.5854)	(3.5854)
GROWTH	0.0196 ***	0.0146 ***	0.1063 ***	0.0185 ***	0.0145 ***	0.1045 ***	0.0194 ***	0.0145 ***	0.1087 ***	0.0184 ***	0.0146 ***	0.1091 ***
	(4.5556)	(4.1954)	(2.8358)	(4.3788)	(4.1637)	(2.7648)	(4.6035)	(4.1680)	(2.8950)	(4.4273)	(4.1905)	(2.8835)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R squares	0.9261	0.8155	0.8147	0.9278	0.8105	0.8087	0.9273	0.8102	0.8152	0.9276	0.8152	0.8205
Adjusted R squares	0.9133	0.7835	0.7826	0.9153	0.7777	0.7755	0.9147	0.7773	0.7832	0.9147	0.7824	0.7886
F-statistic	72.3483	25.5148	25.3837	74.1992	24.6926	24.4017	73.6034	24.6450	25.4630	72.2012	24.8593	25.7614
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 5.12 Panel D indicates that RPTENTITY_SH show a significant positive relationship with short-term firm performance measured with CFO at the 10% level, but a significant negative relationship with ROA and is insignificant with Tobin's Q when separately regressed, as shown in Model 11. The negative significance increases to the 5% level when RPTENTITY_SH and other types of RPTs entity based on the nature of the relationship are regressed together on firm performance measured with ROA as in Model 14. These relationships indicate that firms with higher RPTs with entities that are the firm's shareholders seem to have higher firm performance measured with CFO but lower firm performance measured with ROA. It appears that RPTs with entity that are the firm's shareholder enhance firm performance measured with CFO but the contrast effect is seen on firm performance measured with ROA. The reason for the contradicting effects of RPTs with entities that are the firm's shareholders may be because the types of RPTs with entity are varied but most of them are in the form of liabilities, which will have a positive impact on CFO and negative impact on ROA. This finding is consistent with previous studies where it is found that RPTs loan to directors, officers and shareholders (Kohlbeck & Mayhew 2010) as well as RPTs with the main shareholders, board members and directors (Nekhili & Cherif 2011) provide significant negative influence on firm performance.

RPTENTITY_ASSC and RPTENTITY_OAFF are found to have significant positive relationship at the 1% level with short-term firm performance measured with ROA, but are insignificant with another short-term firm performance (CFO) and long-term firm performance (Tobin's Q) as presented in Table 5.13 Panel D Model 12 and Model 13, respectively. Their relationships are found to be similar when they are regressed together with other types of RPTs entity in Model 14. These relationships show that firms with higher RPTs associates and joint firms and firms with higher RPTs other affiliates have higher short-term firm performance measured with ROA.

Hence, this study accepts Hypothesis 1d, which states that RPTs entity based on the nature of the relationship have a significant positive relationship with firm performance, except for RPTs shareholders with ROA. RPTENTITY_SH has a significant negative relationship with short-term firm performance measured with ROA. When CFO is used to measure firm performance, the relationship is found to be a significantly positive. RPTENTITY_ASSC and RPTENTITY_OAFF have a significant positive relationship with short-term firm performance measured with ROA.

Likewise, this study accepts general Hypothesis 1 since there are significant positive relationships between several types of RPTs and firm performance measured with short-term performance (ROA and CFO) or long-term performance (Tobin's Q). Firstly, the total size of RPTs is found to have a significant positive relationship with short-term firm performance measured with ROA. Secondly, RPTs based on the nature of the transaction are found to have significant positive effects on firm performance (except for RPTs lending): RPTs sales and RPTs purchases have

significant positive relationships with short-term firm performance measured with ROA, RPTs lending have significant negative relationship with long-term firm performance measured with Tobin's Q, and RPTs liabilities have significant positive relationship with short-term firm performance measured with CFO. Thirdly, RPTs based on the status of related party (RPTs person and RPTs entity) have significant positive relationship on long-term firm performance (Tobin's Q) and short-term firm performance (ROA), respectively. Lastly, RPTs entity based on the nature of the relationship have significant positive relationship on firm performance (except for RPTs shareholders on ROA): RPTs shareholders have a significant positive relationship with short-term firm performance measured with CFO, but a significant negative relationship with another short-term performance measured with ROA, RPTs associates and joint firms and RPTs other affiliates have significant positive relationships with short-term firm performance measured with ROA.

These findings concur with the contracting theory view (Godfrey et al. 2010), where Indonesian listed firms as legal nexus perform their business activities through contractual relationships, including with related parties in the forms of selling goods and services (RPTs sales), purchasing goods and services (RPTs purchases), providing account receivables, notes receivables and other claim from related parties (RPTs lending) and receiving account payables, note payables, credit and other liabilities to related parties (RPTs liabilities). The parties involved in those contractual relationships are in the hands of the firms. The related parties that engage with the firm are persons and entities. The related persons include individual shareholders, key management persons, and close families of the shareholders or key management persons, while the entities include entity shareholders, associates and joint firms and other affiliates (entities with the same shareholders, entities owned by key management person, entities with the same key management person).

Those contractual relationships with related parties provide positive influence on firm performance as discussed above. For RPTs based on the status of related party: RPTs person have a positive impact on long-term performance and RPTs entity have a positive impact on short-term performance. RPTs with entity based on the nature of transaction also have a positive impact on firm performance: RPTs shareholders have a significant positive impact on short-term firm performance measured with CFO, and RPTs associates and joint firms and RPTs other affiliates have significant positive relationships with short-term firm performance measured with ROA. Thus, in a stakeholder theory view, RPTs based on the status of related party and RPTs with entity based on the nature of relationship bring benefit to the firm's stakeholders, for examples: investors, employees, government.

However, it is also found that RPTs lending have negative effect on long-term firm performance measured with Tobin's Q and RPTs shareholders have negative impact on short-term firm

performance measured with ROA. In concurrence with Freeman's stakeholder theory (Freeman, 1984) that define a stakeholder as any group or individual who can affect or is affected by the firm, the involvement of the firm in RPTs can affect a group or individual that has relationship with the firm. In the context of RPTs lending, the magnitude of RPTs lending conducted by the firm influences the investor to reduce the price of firm's shares that results in the lower long-term firm performance measured with Tobin's Q. Then, based on the stakeholders theory that was introduced by Freeman (1984), an investor of the firm is a firm's stakeholder since he or she or they are affected by the firm, particularly the involvement of the firm in RPTs lending. In addition, based on the stakeholders theory, a firm has many stakeholders (Clarkson 1995; Donaldson & Preston 1995; Fassin 2009; Freeman 1984, 1994; Miles 2015; Mitchel, Agle & Wood 1997). In the context of RPTs, a firm needs to consider the stakeholders when engaging in RPTs, particularly RPTs lending. Managers of the firm need to ensure that the value of the firm is equitably distributed to all stakeholders (Hasnas 2013) with fairness or arms-length approach (Bridoux & Stoelhorst 2014) so that the negative effects of RPTs to the firm's stakeholders can be minimised.

With regard to the control variables, the size of the firm (FSIZE) is found to have a significant positive relationship at the 1% level with long-term firm performance measured with Tobin's Q, but it is found to be insignificant with firm performance measured with ROA and CFO as presented in Table 5.12 Panel A to Panel D Model 1 to Model 14. This relationship implies that larger firms seem to have higher firm performance measured with Tobin's Q. This result is consistent with those in the literature whereby the size of the firm has a significant positive relationship with firm performance measured with CARs (Cheung, Jing, et al. 2009), ROA (Chen, Y, Chen & Chen 2009; Chou, Chung & Yin 2013; Giroud & Mueller 2010; Jiang, G, Rao & Yue 2015; Liu, Y et al. 2015; Sami, Wang & Zhou 2011; Ullah 2017), Tobin's Q (Black et al. 2015; Jameson, Prevost & Puthenpurackal 2014; Jiang, G, Rao & Yue 2015; Sami, Wang & Zhou 2011; Ullah 2017), ROE (Jiang, G, Rao & Yue 2015; Liu, Y et al. 2015; Owusu & Weir 2016); EBITDA (Hwang & Kim 2016), net profit margin, and annual return per full-time equivalent employee (Waelchli & Zeller 2013). Similar to Upadhyay, Bhargava and Faircloth (2014) and Chou, Chung and Yin (2013), this study cannot provide evidence on the relationship between the size of the firm (FSIZE) and firm performance measured with ROA.

Leverage (LEV) is found to have a significant positive relationship with long-term firm performance measured with Tobin's Q at the 1% level in several equations, but is significantly negative at the 1% level with short-term performance (ROA and CFO) in all regression equation models. These relationships show that firms with higher debts and liabilities have higher long-term firm performance measured with Tobin's Q, but they have lower short-term firm performance measured with ROA and CFO. The role of leverage that forced the firm to take the positive net present value projects plays a part when Tobin's Q is used as firm performance measurement. This result is

consistent with the results of Aharony, Wang and Yuan (2010) and Ullah (2017) using ROA, Peng, Wei and Yang (2011) using CARs, Kang et al. (2014), Xiao and Zhao (2014), Black et al. (2015) and Ullah (2017) using Tobin's Q, Park et al. (2016) using adjusted Tobin's Q and market-to-book value to measure firm performance. In contrast, the role of leverage does not exist when ROA and CFO served as firm performance measurement. Even though the result is in contrast with the role of leverage when ROA and CFO are used as firm performance measurements, this result is consistent with the findings of Park and Shin (2004), Chen, Chen and Chen (2009), Sami, Wang and Zhou (2011), Duru, Wang and Zhao (2013), Waelchli and Zeller (2013), Upadhyay, Bhargava and Faircloth (2014), Sun, J and Liu (2014), Jiang, G, Rao and Yue (2015), Liu, Y et al. (2015), Wang, L (2015), Chauhan, Lakshmi and Dey (2016), and Hwang and Kim (2016).

The growth of the firm (GROWTH) is found to have a significant positive relationship at the 1% and 5% levels with short-term firm performance measured (ROA and CFO) and long-term performance (Tobin's Q), suggesting that firms with higher growth generate higher firm performance measured with ROA, CFO and Tobin's Q. This finding is consistent with the literature, which reveals that the growth of the firm is significantly positive associated with firm performance measured with Tobin's Q (Beiner et al. 2006; Berkman, Cole & Fu 2009; Jameson, Prevost & Puthenpurackal 2014; Owusu & Weir 2016; Ullah 2017; Upadhyay, Bhargava & Faircloth 2014), ROA (Berkman, Cole & Fu 2009; Liu, Y et al. 2015; Ullah 2017; Wan & Wong 2015), EBITDA to sales ratio and stock liquidity (Huyghebaert & Wang 2012), market-to-book ratio of central state owned firms (Wang, L 2015) and ROE (Liu, Y et al. 2015; Owusu & Weir 2016).

5.8 Summary of the Chapter

This chapter presents and discusses the findings related to the first specific objective of this study, that is to examine the relationship between RPTs and firm performance.

By applying the GLS fixed effects method, this study provides evidence that RPTs have a significant relationship with firm performance. RPTs in the forms of RPTs total, RPTs based on the nature of transaction in the form of RPTs sales and RPTs purchases, RPTs based on the status of related party in the form of RPTs entity, RPTs with entity based on the nature of relationship in the form of RPTs associates and joint firms and RPTs other affiliates are found to have significant positive relationship with short-term firm performance measured with ROA. RPTs based on the nature of transactions in the form of RPTs liabilities and RPTs with entity based on the nature of transactions in the form of RPTs shareholders are found to have significant positive association with short-term performance measured with CFO while RPTs based on the status of related party in the form of RPTs person is revealed to have significant positive relationship with long-term performance measured with Tobin's Q. This study also finds that RPTs based on the

nature of transaction in the form of RPTs lending and RPTs with entity based on the nature of relationship in the form of RPTs shareholders have significant negative relationship with long-term performance (Tobin's Q) and short-term performance (ROA), respectively. These findings suggest that firms with higher RPTs total, RPTs sales, RPTs purchases, RPTs entity, RPTs associates and joint firms and RPTs other affiliates relate to higher firm performance measured with ROA. Firms with higher RPTs liabilities and RPTs shareholders have higher firm performance measured with CFO while firms with higher RPTs person have higher firm performance measured with with Tobin's Q. In contrast, firms with higher RPTs lending and RPTs shareholders have lower Tobin's Q and lower ROA, respectively. RPTs lending are seen as a tool for tunneling, thus investors will respond by reducing the stock price of firms with higher RPTs lending.

With regard to firm characteristics as control variables, the size of the firm (FSIZE) and leverage are found to have significant positive relationship with long-term firm performance measured with Tobin's Q, but they are found to be insignificant with firm performance measured with ROA and CFO. The growth of the firm (GROWTH) is found to have a significant positive relationship with short-term and long-term firm performance. These findings imply that larger firms and firms with higher leverage have higher firm performance measured with Tobin's Q and firms with higher growth generate higher firm performance measured with ROA, CFO and Tobin's Q.

The findings of the study related to the second specific objective, which examines the relationship between the characteristics of corporate governance and firm performance, are presented and discussed in the following chapter.

CHAPTER 6

RESULTS AND DISCUSSION: CHARACTERISTICS OF CORPORATE GOVERNANCE AND FIRM PERFORMANCE

6.1 Introduction

The second specific objective of this study is to examine the relationship between characteristics of corporate governance and firm performance. This chapter presents and discusses the results and findings related to the second specific objective of this study. The following research questions are answered in achieving the second specific objective:

Research Question 2:	Is there a significant relationship between the characteristics of corporate governance and firm performance?

This study examines the relationship between the characteristics of corporate governance and firm performance by addressing several characteristics of corporate governance: 1) size of the BOD, size of the BOC and total size of the BOD and BOC; 2) independence of the BOC; 3) committees established in the BOC; 4) size of audit committee; and 5) the expertise in finance and/or accounting of audit committee. Therefore, Research Question 2 is detailed in the following specific research questions:

Research Question 2a:	Is there a significant relationship between size of the BOD, size of the BOC, and total size of the BOD and BOC and firm performance?
Research Question 2b:	Is there a significant relationship between independence of the BOC and firm performance?
Research Question 2c:	Is there a significant relationship between committees established in the BOC and firm performance?
Research Question 2d:	Is there a significant relationship between size of the audit committee and firm performance?
Research Question 2e:	Is there a significant relationship between the expertise in finance and/or accounting of the audit committee and firm performance?

This chapter describes and reports the descriptive statistics of the variables in this study, including firm performance variables, corporate governance characteristics variables and control variables. It also presents the results of correlation analysis among those variables, the results of trend analysis related to firm performance, corporate governance characteristics and control variables, endogeneity test, results of the optimum method selection, statistical validity tests and the results

of the regression with GLS Fixed Effects method concerning with the relationship between the characteristics of corporate governance and firm performance.

6.2 Descriptive Statistics

The descriptive statistics for the sample, including firm performance variables, the characteristics of corporate governance variables, and control variables are shown in Tables 6.1, 6.2 and 6.3, respectively.

To examine the relationship between characteristics of corporate governance and firm performance, this study looks at accounting-based firm performance measurements (ROA and CFO) and market-based firm performance measurement (Tobin's Q). The ROA of the sample firms range between -0.5752 and 0.8717, with an average 0.1177 (11.77%) as presented in Table 6.1. This means that every IDR 1 invested by the sample firms will result in a range loss IDR 0.5752 to gain IDR 0.8717 earnings before interest and tax (EBIT), with an average IDR 0.1177. It seems that some sample firms suffer losses (33 out of 658 firm-years) and most sample firms generate profits.

Table 6.1 Descriptive Statistics for Firm Performance Variables

Firm Performance	Mean	Median	Maximum	Minimum	Std. Dev.	Observ.
ROA	0.1177	0.0915	0.8717	-0.5752	0.1246	658
CFO	0.0926	0.0736	0.6627	-0.3669	0.1179	658
Tobin's Q	2.0248	1.3678	19.3396	0.2594	2.2064	658

The CFO of the sample firms range between -0.3669 and 0.6627 of total assets at the end of the year, with an average of 0.0926 (9.26%), which shows that some sample firms generate negative CFO (107 out of 658 firm-years), while some sample firms produce positive CFO with an average IDR 0.0926 in every IDR 1 total assets at the end of the year.

Meanwhile, the Tobin's Q of the sample firms range between 0.2594 and 19.3396, with an average 2.0248, indicating that some sample firms have lower market value than book value (183 out of 658 firm years) since the Tobin's Q is less than 1. The other sample firms have higher market value compared to book value since the Tobin's Q is higher than 1, including 40 out of 658 firm-years with Tobin's Q higher than 5.

The descriptive statistics of the corporate governance characteristics variables are presented in Table 6.2. The number of directors in BOD (BODSIZE) of the sample firms range from 2 to 13 directors, with an average 5.4954. Some sample firms (6 firms) have 2 directors (22 out of 658

firm-years), some other firms (27 firms) have more than 7 directors (130 out of 658 firm-years), and the remaining sample firms have 3 to 7 directors (506 firm-years).

Additionally, the number of commissioners of the BOC (BOCSIZE) of the sample firms range from 2 to 12 commissioners, with an average 5.0106. Some sample firms (4 firms) have 2 commissioners (6 out of 658 firm-years), some sample firms (17 firms) have more than 7 commissioners (62 out of 658 firm-years), and the remaining sample firms have 3 to 7 commissioners (589 firm-years). On average, the sample firms have larger size of BOD (5.4954) than the size of BOC (5.0106).

Table 6.2 Descriptive Statistics for the Characteristics of Corporate Governance Variables

	Mean	Median	Maximum	Minimum	Std. Dev.	Observ
BODSIZE*	5.4954	5	13	2	2.1148	658
BOCSIZE*	5.0106	5	12	2	1.8575	658
BOARDSIZE*	10.5061	10	20	4	3.3815	658
INDBOC	0.4122	0.4000	1.0000	0.2000	0.1068	658
BOCCOM	0.3781	0.3333	1.3333	0.0909	0.2426	651
ACSIZE*	3.1871	3	7	0	0.5933	652
ACEXP	0.5249	0.5000	1.5000	0.0909	0.2529	623

*the natural logarithm of these variables are applied for regression analysis

When the size of the BOD and size of the BOC are added together (BOARDSIZE), the total size of the BOD and BOC ranges from 4 to 20 members, with an average of 10.5061. Two sample firms (2 out of 658 firm-years) have 4 board members and 21 sample firms (91 out of 658 firm-years) have more than 14 board members. For the remaining 565 firm-years, the sample firms have 5 to 14 board members.

Looking at the independence of the BOC, the number of independent commissioners in the BOC (INDBOC) of the sample firms range from 1 to 7 commissioners, with an average 2.0714. 37 sample firms have only one independent commissioner (176 out of 658 firm-years). In terms of percentage, the independent BOC (INDBOC) ranges from 0.2000 (20%) to 1.0000 (100%) of the BOC size, with an average 0.4122 (41.22%), showing that some sample firms (15 firms) have less than 30% of INDBOC (18 out of 658 firm-years) and other sample firms (18 firms) have more than 50% of INBOC (59 out of 658 firm-years), including one firm (ANTM) that has a fully independent BOC in 2 firm-years. The majority of sample firms have INDBOC in the range of 30% to 50% (581 out of 658 firm-years).

The number of committees established in the BOC (BOCCOM) ranges from 1 to 5, with an average 1.7757. Five sample firms have 5 committees established in the BOC (26 out of 651 firm-years), whereas most of the sample firms (70 firms) have only one committee established in the BOC (400 out of 651 firm-years), namely audit committee. It is observed that the sample firms have fulfilled the regulation (at least 1 committee established in BOC i.e. audit committee). In terms of percentage, the number of committees established in the BOC scaled by the size of BOC (BOCCOM) ranges from 0.0909 (9.09%) to 1.3333 (133.33%) of the size of BOC, with an average 0.3781 (37.81%) (Table 6.2). 62 sample firms (291 out of 651 firm-years) have less than 30% of BOCCOM, and 12 sample firms (33 out of 651 firm-years) have 100% and more of BOCCOM.

The number of members making up audit committee (ACSIZE) ranges from 0 to 7 members, with an average 3.1871 (Table 6.2). One firm (ASRI) established the audit committee in 2008, so did not have an audit committee in 2007. Three sample firms have 2 members of the audit committee (7 out of 652 firm-years) and 2 sample firms have 7 members of the audit committee (2 out of 652 firm-years), whereas most sample firms (551 out of 652 firm-years) have 3 members of the audit committee, and the remaining sample firms have 4 to 6 members of the audit committee.

The number of audit committee members who have education and/or experience in finance and/or accounting (ACEXP) range from 1 to 5, with an average 2.3917. Some sample firms (19 firms) have only 1 member in audit committee who has expertise in finance and/or accounting (92 out of 623 firm-years), 2 other sample firms have 5 audit committee members who have financial and/or accounting expertise (7 out of 623 firm-years), and the remaining sample firms have 1 to 4 members of audit committee with education and/or experience in finance and/or accounting. In terms of percentage, the number of members in audit committee who have education and/or experience in finance and/or accounting scaled by the size of BOC of the firm (ACEXP) range from 0.0909 (9.09%) to 1.5000 (150.00%), with an average 0.5249 (52.49%). 27 sample firms have less than 30% of ACEXP (105 out of 623 firm-years), 21 sample firms have 100% of ACEXP (77 out of 623 firm-years), 2 sample firms have more than 100% of ACEXP (3 out of 623 firm-years), and the remaining sample firms have 30% to 99% of audit committee members with finance and/or accounting education and/or experience background.

Three firm characteristics as control variables are addressed in this study: size of the firm (FSIZE), leverage (LEV) and growth (GROWTH). The descriptive statistics of firm characteristics are presented in Table 6.3. The size of the sample firms ranges between IDR 8,820 and IDR 214,000,000 milion (equivalent to AUD 0.88 million to AUD 21,263.57 million with exchange rate IDR 10,064.16 for AUD 1 at 31 December 2015), with an average IDR 9,440,000 million (equivalent to AUD 937.98 million with exchange rate IDR 10,064.16 for AUD 1 at 31 December 2015). The leverage of the sample firms ranges between 0.0004 (0.04%) and 2.9981 (299.81%) of

total assets, with an average debt of 0.5162 (51.62%). Four sample firms (APOL, BNBR, BTEL and SMMT) have leverage higher than 1, which shows that their total liabilities are more than their total assets or the firms have negative equity (11 firm-years). The growth of sample firms ranges between -0.8206 (-82.06%) and 8.8600 (886.00%), with an average growth rate of 0.2310 (23.10%). Some sample firms have negative growth rate and yet others have a growth rate of more than 1.

Table 6.3 Descriptive Statistics for Firm Characteristics Variables

Variable	Mean	Median	Max	Min	Std. Dev.	Observations
FSIZE (IDR milion)*	9,440,000	3,510,000	214,000,000	8,820	19,600,000	658
LEV	0.5162	0.5202	2.9981	0.0004	0.2639	658
GROWTH	0.2310	0.1545	8.8600	-0.8206	0.5175	658

*the natural logarithm of these variables applied for regression analysis

6.3 Correlation Analysis

Correlation analysis is carried out to describe the degree of linear relationship between two variables (Ramsey and Schafer, 2013). This study employs the Spearman rank-order correlation in the correlation analysis, which is found to be appropriate since it does not need to consider or make any assumptions about the frequency distribution of the variables. Results of the Spearman rank-order correlation analysis are presented in Table 6.4.

ROA is found to have a significant positive correlation with other firm performance measurements (CFO and Tobin's Q). In other words, other firm performance measurements can serve as alternative measurements for firm performance.

Firm performance (ROA, CFO and Tobin's Q) is found to have positive significant or negative significant correlations with corporate governance characteristics. Firm performance measured with ROA, CFO and Tobin's Q have significant positive correlations with size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), and size of the audit committee (ACSIZE). CFO and Tobin's Q have significant positive correlations with INDBOC. These correlations indicate that firms with larger size of the BOD, larger size of the BOC, larger total size of the BOD and BOC or firm board, and larger size of the audit committee (ACSIZE) are associated with higher firm performance measured with ROA, CFO and Tobin's Q. Meanwhile, firms with higher percentage of independence of the BOC (INDBOC) are associated with higher firm performance measured with CFO and Tobin's Q.

Table 6.4 Spearman Rank-Order Correlation Matrices for Firm Performance, Corporate Governance Characteristics and Firm Characteristics

Variables	ROA	CFO	Tobin's Q	BODSIZE	BOCSIZE	BOARDSIZE	INDBOC	BOCCOM	ACSIZE	ACEXP	FSIZE	LEV	GROWTH
ROA	1												
CFO	0.5939*** (18.9074)	1											
Tobin's Q	0.5553*** (17.1028)	0.4411*** (12.5873)	1										
BODSIZE	0.3209*** (8.6779)	0.2623*** (6.9607)	0.2728*** (7.2621)	1									
BOCSIZE	0.1528*** (3.9610)	0.1457*** (3.7731)	0.2162*** (5.6726)	0.4746*** (13.8085)	1								
BOARDSIZE	0.2790*** (7.4409)	0.2456*** (6.4893)	0.2880*** (7.7014)	0.8791*** (47.2315)	0.8242*** (37.2797)	1							
INDBOC	0.0341 (0.8746)	0.0642* (1.6479)	0.0971** (2.4998)	0.1575*** (4.0850)	0.1667*** (4.3301)	0.1937*** (5.0572)	1						
BOCCOM	-0.0269 (-0.6862)	0.0386 (0.9848)	-0.0390 (-0.9943)	-0.1917*** (-4.9765)	-0.3990*** (-11.0867)	-0.3274*** (-8.8268)	-0.0440 (-1.1210)	1					
ACSIZE	0.0703* (1.7942)	0.0921** (2.3566)	0.0781** (1.9968)	0.2388*** (6.2638)	0.2470*** (6.4927)	0.2852*** (7.5816)	0.0369 (0.9409)	0.0829** (2.1200)	1				
ACEXP	0.0007 (0.0170)	-0.0436 (-1.0887)	-0.0722* (-1.8040)	-0.2911*** (-7.5824)	-0.6070*** (-19.0361)	-0.5051*** (-14.5846)	-0.1362*** (-3.4254)	0.1763*** (4.4634)	0.0656 (1.6378)	1			
FSIZE	0.2105*** (5.5143)	0.1899*** (4.9545)	0.2722*** (7.2439)	0.5160*** (15.4300)	0.5438*** (16.5985)	0.6060*** (19.5140)	0.2840*** (7.5868)	0.0047 (0.1198)	0.3269*** (8.8124)	-0.2730*** (-7.0724)	1		
LEV	-0.3477*** (-9.4976)	-0.1891*** (-4.9325)	-0.2256*** (-5.9310)	-0.1863*** (-4.8557)	-0.0871** (-2.2391)	-0.1678*** (-4.3596)	-0.0074 (-0.1897)	-0.0293 (-0.7476)	-0.0036 (-0.0916)	0.0788** (1.9690)	-0.0017 (-0.0429)	1	
GROWTH	0.1439*** (3.7232)	-0.0130 (-0.3329)	0.0555 (1.4224)	0.0634 (1.6283)	0.0586 (1.5031)	0.0633 (1.6255)	0.0327 (0.8381)	-0.0441 (-1.1244)	-0.0016 (-0.0398)	-0.0035 (-0.0873)	0.1166*** (3.0073)	0.0152 (0.3890)	1

*** significant at 1%, ** significant at 5%, * significant at 10%

On the other hand, firm performance measured with Tobin's Q has significant negative correlation with expertise in finance and/or accounting of the audit committee scaled by size of the BOC (ACEXP). These correlations show that firms with higher expertise in finance and/or accounting of the audit committee are associated with lower firm performance measured with Tobin's Q.

Firm performance has significant positive and negative correlations with various control variables. Firm performance measured with ROA, CFO and Tobin's Q has significant positive correlation with the size of the firms (FSIZE), but significant negative correlation with leverage (LEV). ROA is the only measurement that has significant positive correlation with the firm growth (GROWTH). These correlations show that larger firms are associated with higher firm performance measured with ROA, CFO and Tobin's Q, but firms with higher leverage are associated with lower firm performance measured with ROA, CFO and Tobin's Q. Meanwhile, firms with higher growth are associated with higher firm performance measured with ROA.

Additionally, correlation between independent variables also can detect the existence of the multicollinearity problem, which may occur when the correlation is higher than 0.80 (Gujarati, 2003). The significant correlations among independent variables are in a range 0.0829 – 0.8791. High correlation among the corporate governance characteristic variables (refer Table 6.4) may not create the multicollinearity problem because the regression of various characteristics of corporate governance variables are carried out separately.

6.4 Trend Analysis

Further exploration of firm performance and the characteristics of corporate governance is carried out by doing trend analysis as a preliminary analysis. Trend analysis is performed to determine the trend for firm performance and characteristics of corporate governance of sample firms over time (from 2007 to 2013), and to illustrate that the variables of the sample firms have almost similar performances and characteristics of corporate governance over time. Additionally, the trend analysis is done to justify the use of the fixed effects method in regression analysis. The mean comparison of firm performance over time (from 2007 to 2013) for the sample firms is presented in Table 6.5. The mean comparison of the various characteristics of corporate governance over time (from 2007 to 2013) is presented in Tables 6.6 and 6.7.

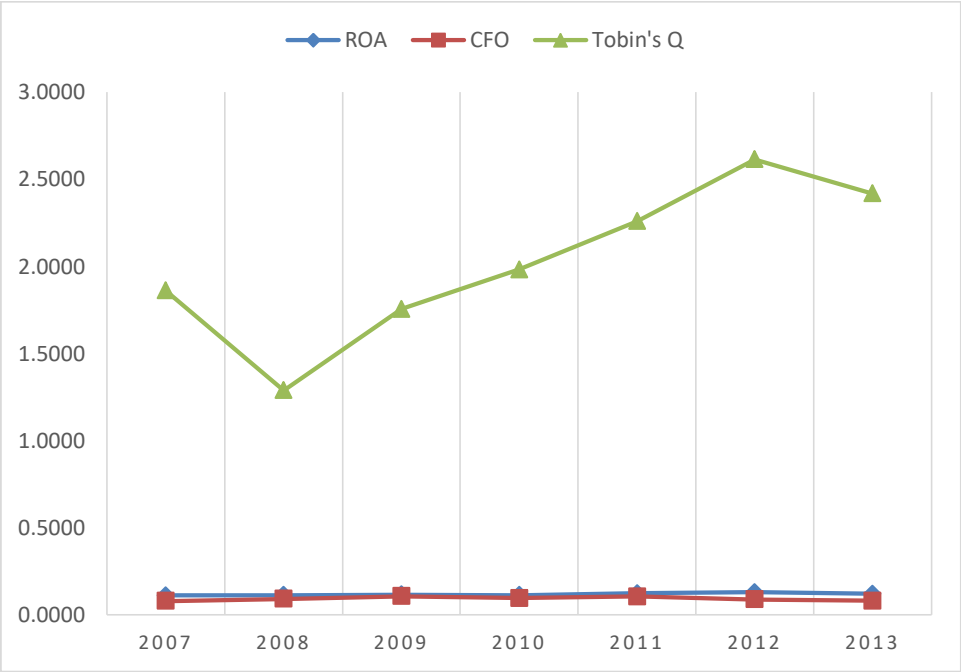
As illustrated in Figure 6.1, the means of ROA tends to increase from 2007 to 2012 (with a slight decrease in 2010), and then decreases in 2013. The trend of CFO is almost similar to ROA. CFO inclines from 2007 to 2009 (with a slight decline in 2010), inclines in 2011 to 2012, and declines again in 2013. Whereas the means of Tobin's Q decreases in 2008 (crisis period) and increases from 2009 to 2012, then decreases again in 2013. Overall, the means of firm performance increase from 2007 to 2012, with a slight decrease in 2010 for ROA and CFO, and a substantial decrease in

2008 for Tobin's Q concurrent with the economic crisis, rebound until 2012, and then decrease in 2013.

Table 6.5 Mean Comparison of Firm Performance from 2007 to 2013

Year	ROA	CFO	Tobin's Q
2007	0.1107	0.0797	1.8599
2008	0.1124	0.0919	1.2882
2009	0.1158	0.1066	1.7553
2010	0.1129	0.0955	1.9813
2011	0.1230	0.1046	2.2582
2012	0.1291	0.0886	2.6139
2013	0.1197	0.0812	2.4168

Figure 6.1 Trend of Firm Performance from 2007 to 2013

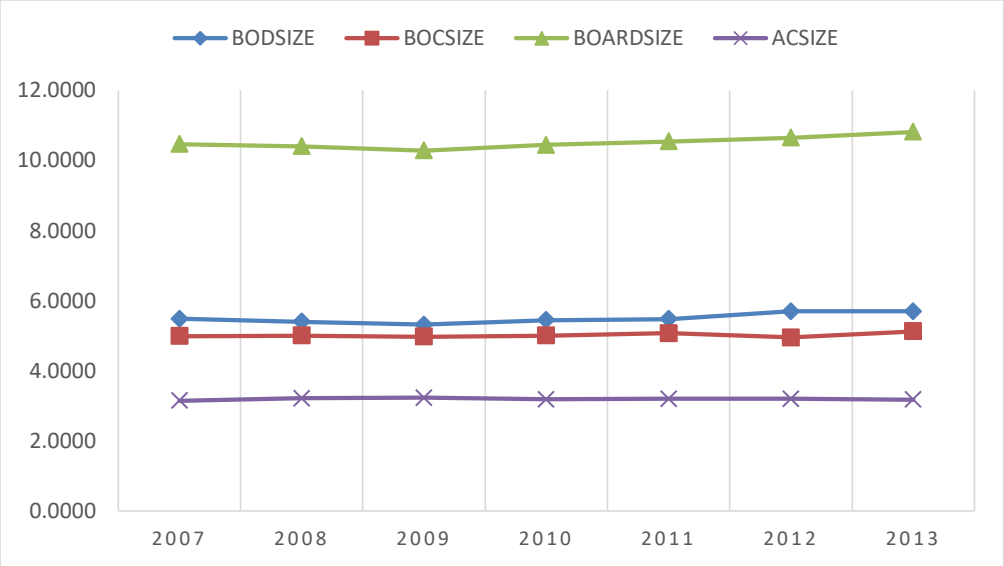


The means of BODSIZE, BOCSIZE and BOARDSIZE from 2007 to 2013 range between 5.3085 to 5.6915, between 4.9468 to 5.1170, and between 10.2766 and 10.8085, respectively (Table 6.6 and Figure 6.2). The BODSIZE and the BOARDSIZE have a similar trend from 2007 to 2013, with a slight decrease in 2008 to 2009, then slight increases until 2013. The BOCSIZE tends to be flat. The means of audit committee size (ACSIZE) and audit committee expertise in finance and accounting (ACEXP) are between 3.1429 and 3.2258 and between 2.3370 and 2.5063, respectively, with a flat trend. Overall, there are no significant changes in the means of corporate governance characteristics when measured in the original number or data levels from 2007 to 2013.

Table 6.6 Mean Comparison of the Characteristics of Corporate Governance (BODSIZE, BOCSIZE, BOARDSIZE and ACSIZE) from 2007 to 2013

Year	BODSIZE	BOCSIZE	BOARDSIZE	ACSIZE
2007	5.4787	4.9787	10.4574	3.1429
2008	5.3936	5.0000	10.3936	3.2065
2009	5.3085	4.9681	10.2766	3.2258
2010	5.4362	5.0000	10.4362	3.1809
2011	5.4681	5.0638	10.5319	3.1915
2012	5.6915	4.9468	10.6383	3.1915
2013	5.6915	5.1170	10.8085	3.1702

Figure 6.2 Trend of the Characteristics of Corporate Governance (BODSIZE, BOCSIZE, BOARDSIZE and ACSIZE) from 2007 to 2013

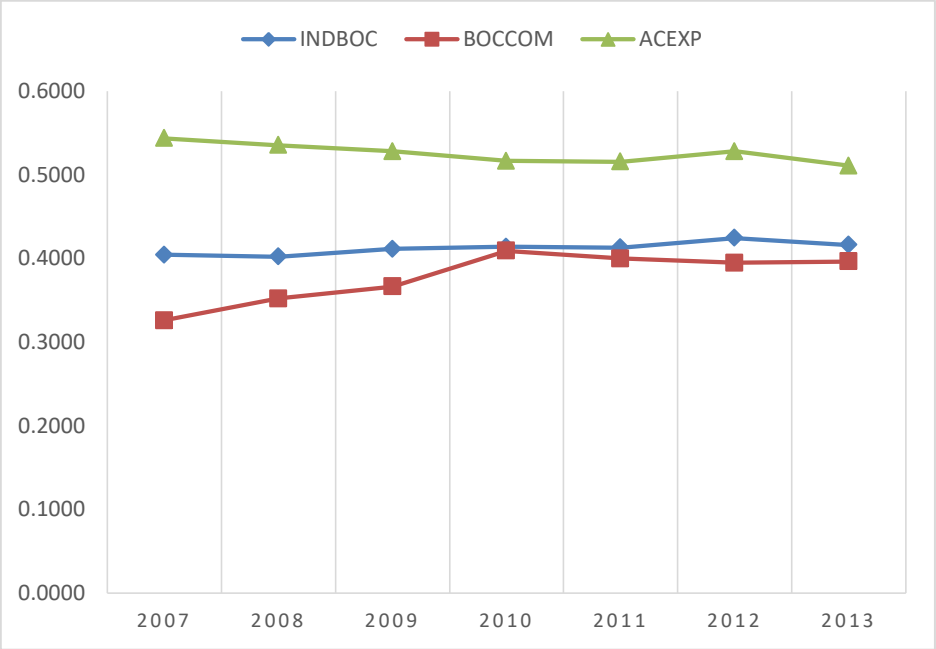


When the characteristics of corporate governance are scaled by the size of BOC, the means of corporate governance characteristics have varied trends (Table 6.7 and Figure 6.3). The means of INDBOC are between 0.4020 and 0.4245, and tend to be flat with slight fluctuations over the period 2007 to 2013. Whereas, the means of BOCCOM range from 0.3258 to 0.4091, with an increasing trend in 2007 to 2010 and then slightly declining trend from 2011 to 2013. The mean of ACEXP are between 0.5109 to 0.5435, with a minor declining trend. Overall, the means of INDBOC, BOCCOM and ACEXP have flat trends with only slight decreases or slight increases. These trends show that there are no significant changes in the characteristics of corporate governance over the period from 2007 to 2013.

Table 6.7 Mean Comparison of the Characteristics of Corporate Governance (INDBOC, BOCCOM and ACEXP) from 2007 to 2013

Year	INDBOC	BOCCOM	ACEXP
2007	0.4042	0.3258	0.5435
2008	0.4020	0.3520	0.5354
2009	0.4113	0.3662	0.5279
2010	0.4139	0.4091	0.5166
2011	0.4129	0.3999	0.5157
2012	0.4245	0.3948	0.5281
2013	0.4162	0.3962	0.5109

Figure 6.3 Trend of the Characteristics of Corporate Governance (INDBOC, BOCCOM and ACEXP) from 2007 to 2013



6.5 Endogeneity Test

Empirical studies in corporate finance acknowledge the endogeneity issue on the relationship between corporate governance (especially board characteristics) and firm performance (Beiner et al. 2006; Bhagat & Bolton 2008; Cheng 2008; Mangena, Tauringana & Chamisa 2012; Wintoki, Linck & Netter 2012). Following Wooldridge (2006), this study conducts the Durbin-Wu-Hausman test to check the existence of endogeneity. This test is carried out using OLS regression before choosing the optimum method among OLS, FE and RE methods. According to Wintoki, Linck and Netter (2012), one source of endogeneity may arise from the influence of the firm's past

performance on current governance variables. Following Wintoki, Linck and Netter (2012), this study uses past performance (previous year's firm performance) and past board structure (previous year's characteristics of corporate governance) as instrument variables when performing the Durbin-Wu-Hausman test. First, the OLS regression of current characteristics of corporate governance as dependent variable and the previous year's characteristics of corporate governance, previous year's firm performance, and control variables as independent variables. Each characteristic of corporate governance (BODSIZE, BOCSIZE, BOARDSIZE, INDBOC, BOCCOM, ACSIZE and ACEXP) are regressed on previous year's such characteristics of corporate governance, previous year's firm performance (previous year's ROA, previous year's CFO and previous year's Tobin's Q, respectively) and control variables to obtain the residual as shown by Model 1 to Model 7 (Table 6.8).

Then, augmented OLS regression (in the Durbin-Wu-Hausman test) is conducted by including the residual obtained from the first OLS regression, characteristics of corporate governance and control variables as independent variables and firm performance as dependent variable. The results of the augmented OLS regression shows that the coefficient of residual from the first OLS regression are found to be insignificant, except for the residuals of regression BODSIZE when previous year's firm performance measured with previous year's CFO and residuals of regression INDBOC when previous year's performance measured with previous year's Tobin's Q as in Model 1 to Model 7 (Table 6.9). Overall, the results indicate that OLS estimators are consistent and such characteristics of corporate governance variables are exogeneous. Then, this study proceed the analyisis by choosing the optimum method among OLS, FE and RE methods.

This study does not use the Two Stage Least Squares (2SLS) method because it is less efficient than OLS when the explanatory variables are exogeneous (Wooldridge 2006). This study also does not use the Generalised Method of Moments (GMM) due to the limited data availability and because it will reduce the number of observations. This study uses 658 firm-year observations for BODSIZE, BOCSIZE, BOARDSIZE and INBOC, 651 firm-year observations for BOCCOM, 652 firm-year observations for ACSIZE and 623 firm-year observations for ACEXP. Analysis using GMM will reduce the observations to 470, 376 or 282 firm-year observations with lag 1, lag 2 or lag 3 for BODSIZE, BOCSIZE, BOARDSIZE and INBOC, respectively, 467, 375 or 281 firm-year observations with lag 1, lag 2 or lag 3 for BOCCOM and ACSIZE, respectively, and 451, 365 and 271 firm-year observations with lag 1, lag 2 or lag 3 for ACEXP, respectively.

Table 6.8 Results of OLS Regression for the Durbin-Wu-Hausman Test

Panel A. BODSIZE, BOCSIZE and BOARDSIZE

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	BODSIZE			BOCSIZE			BOARDSIZE		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0552 (-0.4179)	-0.0360 (-0.2748)	-0.0569 (-0.4294)	-0.1452 (-1.3986)	-0.1525 (-1.4642)	-0.1522 (-1.4652)	0.0068 (0.0799)	0.0138 (0.1638)	0.0020 (0.0234)
BODSIZE(-1)	0.8601 *** (39.0394)	0.8562 *** (39.1869)	0.8637 *** (39.3039)						
BOCSIZE (-1)				0.8938 *** (47.6300)	0.8933 *** (47.4882)	0.8934 *** (47.5357)			
BOARDSIZE(-1)							0.8947 *** (47.2770)	0.8930 *** (47.2031)	0.8966 *** (47.2951)
ROA(-1)	0.1382 ** (2.1699)			0.0815 (1.6309)			0.1082 *** (2.5943)		
CFO(-1)		0.2302 *** (3.7295)			0.0286 (0.5846)			0.1217 *** (2.9873)	
Tobin's Q(-1)			0.0050 (1.4409)			0.0026 (0.9454)			0.0039 * (1.7345)
FSIZE	0.0094 * (1.8236)	0.0090 * (1.7525)	0.0099 * (1.9105)	0.0099 ** (2.4266)	0.0106 *** (2.6176)	0.0105 *** (2.6021)	0.0075 ** (2.0575)	0.0077 ** (2.1037)	0.0080 ** (2.1868)
LEVERAGE	-0.0148 (-0.5240)	-0.0252 (-0.9584)	-0.0338 (-1.2744)	0.0393 * (1.7625)	0.0271 (1.2995)	0.0273 (1.3195)	0.0131 (0.7036)	0.0018 (0.1026)	-0.0020 (-0.1133)
GROWTH	0.0482 ** (2.4808)	0.0478 ** (2.4902)	0.0425 ** (2.1918)	0.0036 (0.2319)	0.0012 (0.0770)	0.0001 (0.0052)	0.0271 ** (2.1108)	0.0256 ** (2.0090)	0.0225 * (1.7584)
R-squared	0.8228	0.8256	0.8219	0.8640	0.8635	0.8636	0.8855	0.8860	0.8848
Adjusted R-squared	0.8212	0.8240	0.8203	0.8628	0.8622	0.8624	0.8845	0.8850	0.8837
F-statistic	518.0414	528.3365	515.0962	709.1382	705.7446	706.5527	863.3690	867.1561	856.9436
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.8 contd.

Panel B. INDBOC and BOCCOM

Coefficient t-Statistic	Model 4			Model 5		
	INDBOC			BOCCOM		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0498 (1.0664)	0.0534 (1.1395)	0.0604 (1.3023)	0.0964 (1.1075)	0.0993 (1.1352)	0.1025 (1.1754)
INDBOC(-1)	0.7930 *** (30.7521)	0.7897 *** (30.6229)	0.7749 *** (29.7955)			
BOCCOM(-1)				0.9055 *** (45.8906)	0.9057 *** (45.8772)	0.9058 *** (45.8927)
ROA(-1)	-0.0250 (-1.0411)			-0.0293 (-0.6794)		
CFO(-1)		0.0005 (0.0224)			-0.0026 (-0.0620)	
Tobin's Q(-1)			0.0036 *** (2.7747)			0.0010 (0.4316)
FSIZE	0.0014 (0.8497)	0.0012 (0.6922)	0.0008 (0.5044)	-0.0012 (-0.3998)	-0.0015 (-0.5018)	-0.0017 (-0.5727)
LEVERAGE	0.0040 (0.3734)	0.0083 (0.8351)	0.0111 (1.1378)	-0.0243 (-1.2576)	-0.0194 (-1.0761)	-0.0185 (-1.0296)
GROWTH	-0.0138 * (-1.8823)	-0.0128 * (-1.7602)	-0.0134 * (-1.8600)	0.0098 (0.7448)	0.0108 (0.8251)	0.0107 (0.8152)
R-squared	0.6516	0.6510	0.6557	0.7942	0.7940	0.7941
Adjusted R-squared	0.6485	0.6478	0.6526	0.7923	0.7922	0.7922
F-statistic	208.7656	208.1449	212.5564	425.2523	424.8078	424.9850
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	564	564	564	557	557	557

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.8 contd.

Panel C. ACSIZE and ACEXP

Coefficient t-Statistic	Model 6			Model 7		
	ACSIZE			ACEXP		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0325 (0.5657)	0.0480 (0.8359)	0.0328 (0.5714)	0.2544 *** (2.7672)	0.2628 *** (2.8496)	0.2637 *** (2.8691)
ACSIZE(-1)	0.8645 *** (38.1763)	0.8622 *** (38.2054)	0.8639 *** (37.9897)			
ACEXP(-1)				0.8859 *** (45.6596)	0.8849 *** (45.5813)	0.8848 *** (45.5340)
ROA(-1)	-0.0138 (-0.4848)			-0.0517 (-1.2187)		
CFO(-1)		0.0626 ** (2.2605)			-0.0053 (-0.1280)	
Tobin's Q(-1)			-0.0005 (-0.3363)			-0.0001 (-0.0632)
FSIZE	0.0043 ** (2.0100)	0.0034 (1.6304)	0.0042 ** (1.9864)	-0.0062 ** (-2.0394)	-0.0069 ** (-2.2447)	-0.0069 ** (-2.2715)
LEVERAGE	0.0022 (0.1728)	0.0084 (0.7088)	0.0042 (0.3565)	-0.0256 (-1.3210)	-0.0179 (-0.9739)	-0.0177 (-0.9671)
GROWTH	0.0010 (0.1138)	0.0028 (0.3202)	0.0016 (0.1833)	-0.0073 (-0.5597)	-0.0053 (-0.4112)	-0.0052 (-0.4007)
R-squared	0.7619	0.7640	0.7619	0.8152	0.8147	0.8147
Adjusted R-squared	0.7598	0.7619	0.7597	0.8135	0.8129	0.8129
F-statistic	352.7175	356.8114	352.6152	462.3475	460.7623	460.7489
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	557	557	557	530	530	530

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.9 Results of Augmented Regression for the Durbin-Wu-Hausman Test

Panel A. BODSIZE, BOCSIZE and BOARDSIZE

Coefficient t-Statistic	Model 1			Model 2			BOARDSIZE2		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0259 (0.2821)	-0.0688 (-0.7631)	-0.3117 (-0.1747)	-0.0351 (-0.3795)	-0.1774 * (-1.9432)	-0.8262 (-0.4623)	-0.0080 (-0.0894)	-0.1263 (-1.4374)	-0.5574 (-0.3223)
BODSIZE	0.0535 *** (3.0558)	0.0661 *** (3.8627)	0.5603 * (1.6485)						
BOCSIZE				0.0228 (1.2281)	0.0098 (0.5344)	0.3082 (0.8600)			
BOARDSIZE							0.0616 *** (2.7793)	0.0620 *** (2.8404)	0.7442 * (1.7319)
Residual_BODSIZE	-0.0365 (-1.0666)	-0.0832 ** (-2.4709)	-0.0964 (-0.1455)						
Residual_BOCSIZE				-0.0242 (-0.5789)	0.0042 (0.1022)	-0.4555 (-0.5653)			
Residual_BOARDSIZE							-0.0465 (-0.9311)	-0.0719 (-1.4599)	-0.3051 (-0.3162)
FSIZE	0.0028 (0.7724)	0.0028 (0.7836)	0.0558 (0.7815)	0.0069 * (1.8894)	0.0101 *** (2.7746)	0.0905 (1.2764)	0.0022 (0.5429)	0.0037 (0.9431)	0.0367 (0.4754)
LEVERAGE	-0.1556 *** (-8.4624)	-0.0535 *** (-2.9662)	-0.2624 (-0.7355)	-0.1658 *** (-9.1290)	-0.0670 *** (-3.7436)	-0.3655 (-1.0423)	-0.1584 *** (-8.6519)	-0.0588 *** (-3.2643)	-0.2772 (-0.7817)
GROWTH	0.0200 (1.4941)	0.0103 (0.7865)	-0.1040 (-0.4009)	0.0204 (1.5115)	0.0097 (0.7306)	-0.0951 (-0.3644)	0.0216 (1.6062)	0.0117 (0.8835)	-0.0834 (-0.3209)
R-squared	0.1741	0.0813	0.0176	0.1621	0.0569	0.0131	0.1715	0.0697	0.0174
Adjusted R-squared	0.1667	0.0731	0.0088	0.1546	0.0485	0.0042	0.1640	0.0614	0.0086
F-statistic	23.5315	9.8790	2.0049	21.5879	6.7342	1.4783	23.0946	8.3635	1.9794
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.1951	0.0000	0.0000	0.0800
No. of Obsv.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.9 contd.

Panel B. INDBOC and BOCCOM

Coefficient t-Statistic	Model 4			Model 5		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0741 (-0.8626)	-0.1907 ** (-2.2533)	-1.1499 (-0.7226)	-0.0347 (-0.3868)	-0.2055 *** (-2.3255)	-1.3875 (-0.7977)
INDBOC	0.0742 (1.2411)	0.1498 ** (2.5417)	8.1467 *** (7.3801)			
BOCCOM				-0.0404 * (-1.8001)	-0.0070 (-0.3159)	-0.1199 (-0.2755)
Residual_INDBOC	0.1034 (1.0504)	-0.1248 (-1.2881)	-7.1145 *** (-3.8941)			
Residual_BOCCOM				0.0462 (0.9379)	-0.0073 (-0.1506)	0.6623 (0.6928)
FSIZE	0.0085 *** (2.7628)	0.0089 *** (2.9466)	0.0032 (0.0564)	0.0088 *** (2.8967)	0.0116 *** (3.8706)	0.1289 ** (2.1768)
LEVERAGE	-0.1679 *** (-9.2944)	-0.0694 *** (-3.8967)	-0.4791 (-1.4320)	-0.1724 *** (-9.3717)	-0.0673 *** (-3.7164)	-0.3951 (-1.1076)
GROWTH	0.0195 (1.4545)	0.0101 (0.7638)	-0.0620 (-0.2499)	0.0191 (1.4122)	0.0098 (0.7337)	-0.1052 (-0.4017)
R-squared	0.1698	0.0672	0.1003	0.1652	0.0580	0.0125
Adjusted R-squared	0.1624	0.0588	0.0923	0.1576	0.0495	0.0035
F-statistic	22.8247	8.0345	12.4438	21.8028	6.7888	1.3951
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.2243
No. of Obsv.	564	564	564	557	557	557

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.9 contd.

Panel C. ACSIZE and ACEXP

Coefficient t-Statistic	Model 6			Model 7		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0371 (-0.4121)	-0.2153 (-2.4369)	-1.1002 (-0.6348)	-0.0565 (-0.5604)	-0.2650 *** (-2.6726)	-0.4402 (-0.2212)
ACSIZE	-0.0435 (-1.0584)	0.0486 (1.2074)	-1.8856 ** (-2.3839)			
ACEXP				-0.0158 (-0.6727)	0.0154 (0.6660)	-0.5254 (-1.1307)
Residual_ACSIZE	0.0728 (0.9281)	-0.0777 (-1.0070)	1.8134 (1.2007)			
Residual_ACEXP				0.0709 (1.3504)	-0.0691 (-1.3401)	1.1366 (1.0977)
FSIZE	0.0101 *** (2.9986)	0.0100 *** (3.0170)	0.1922 *** (2.9699)	0.0090 *** (2.7510)	0.0132 *** (4.0964)	0.1045 (1.6139)
LEVERAGE	-0.1696 *** (-9.2230)	-0.0674 *** (-3.7335)	-0.3694 (-1.0430)	-0.1485 *** (-7.5861)	-0.0571 *** (-2.9669)	-0.3732 (-0.9655)
GROWTH	0.0179 (1.3232)	0.0105 (0.7925)	-0.1394 (-0.5338)	0.0138 (0.9996)	0.0081 (0.5921)	-0.0932 (-0.3412)
R-squared	0.1622	0.0605	0.0217	0.1306	0.0580	0.0141
Adjusted R-squared	0.1546	0.0520	0.0129	0.1223	0.0490	0.0047
F-statistic	21.3396	7.0954	2.4482	15.7454	6.4506	1.5029
Prob Stat	0.0000	0.0000	0.0329	0.0000	0.0000	0.1872
No. of Obsv.	557	557	557	530	530	530

*** significant at 1%, ** significant at 5%, * significant at 10%

6.6 Results of the Optimum Method Selection

This section discusses the selection of the optimum method among OLS, FE and RE methods. The results of the optimum method selection are presented in Table 6.10.

The F-statistics from the redundant fixed effects test is applied to choose the better method between the OLS method and FE method. The F-statistics in all equation models (Table 6.10 columns 3, 5 and 7) to examine the relationship between the characteristics of corporate governance and firm performance measured with ROA, CFO and Tobin's Q as dependent variables are found to be significant at the 1% level, suggesting that FE methods are better compared to the OLS method. For example, in the first equation model with BODSIZE and control variables as independent variables and ROA as dependent variable, the F-statistic of the redundant fixed effect test shows that the significance is at the 1% level, verifying that the FE method is better than the OLS method.

In addition, the F-statistics of Hausman test is applied to select the better method between the FE method and RE method. The significant F-statistics of Hausman-test (Table 6.10 columns 9, 11 and 13) reveal that the FE method is the better method for most equation models (except for Model 1 and Model 3 with ROA as dependent variable, and Model 6 and Model 7 with Tobin's Q as dependent variable). The LM-test is not needed in this study because the optimum methods can be selected based on the redundant fixed effects test results and the Hausmant test results.

Though the RE method is suggested as the better method for a few models, this study applies the FE method in regression analysis to examine the relationship between corporate governance characteristics and firm performance because this method addresses dummy variables to explain the impacts of omitted variables that are particular to each cross-sectional unit and remain constant over time. The FE method also deals with the effects that are particular to each time period and the same for all cross-sectional units (Hsiao, 2014). Additionally, the FE methods is the optimum method for most equation models (17 out of 21 equation models) and FE method results provide higher adjusted R-squared compared to RE method. Furthermore, the trend analysis also shows that there are no significant changes in corporate governance characteristics variables over the study time period (from 2007 to 2013).

Table 6.10 Results of Optimum Method Selection for the Relationship between Characteristics of Corporate Governance and Firm Performance (ROA, CFO and Tobin's Q)

No	Equation Model	Redundant Fixed Effects test						Hausman Test					
		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
		F-Stat	Opt Method	F-Stat	Opt Method	F-Stat	Opt Method	F-Stat	Opt Method	F-Stat	Opt Method	F-Stat	Opt Method
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	BODSIZE	16.1165 ***	FE	10.6197 ***	FE	13.0021 ***	FE	7.0245	RE	14.6305 ***	FE	10.9516 **	FE
2	BOCSIZE	16.1710 ***	FE	10.9343 ***	FE	12.8798 ***	FE	10.8282 **	FE	14.6369 ***	FE	9.4902 **	FE
3	BOARDSIZE	15.9898 ***	FE	10.7809 ***	FE	12.9949 ***	FE	7.7074	RE	17.4383 ***	FE	11.0389 **	FE
4	INDBOC	16.2671 ***	FE	10.7465 ***	FE	12.0320 ***	FE	10.2485 **	FE	11.4634 **	FE	13.3715 ***	FE
5	BOCCOM	16.2038 ***	FE	11.1757 ***	FE	12.8837 ***	FE	13.1361 **	FE	13.1541 **	FE	9.5817 **	FE
6	ACSIZE	16.0161 ***	FE	11.1454 ***	FE	12.6454 ***	FE	10.1247 **	FE	14.9251 ***	FE	9.2463 *	RE
7	ACEXP	17.0790 ***	FE	10.9852 ***	FE	14.8155 ***	FE	10.1119 **	FE	22.8799 ***	FE	7.7280	RE

*** significant at 1%, ** significant at 5%, * significant at 10%,

6.7 Statistical Validity Test

Several statistical validity tests are carried out to verify the assumptions in the multiple regression, including normality test, autocorrelation test, heteroskedasticity test and multicollinearity test.

6.7.1 Normality Test

One of the assumptions in the multiple-regression is that the error term of regression has normal distribution. The error term is considered normally distributed if the mean is zero and the variance is constant to allow comparison of the estimators and actual value of the population. This study applies the Central Limit Theorem in normality test. The Central Limit Theorem states that when there is a large sample size, the error term is more likely to be normal. Since this study uses 623, 651, 652 and 658 observations for different characteristics of corporate governance variables, the Central Limit Theorem can be applied.

6.7.2 Autocorrelation Test

Another assumption in multiple regression is that the error terms are uncorrelated with each other. Where there is correlation, autocorrelation is assumed to exist and the OLS estimators are considered inefficient and biased. In this study, the Durbin-Watson d statistic is applied to detect autocorrelation and the significance at the 5% level with n = 650 and n = 600 for ROA, CFO and Tobin's Q as dependent variables is applied. Winarno (2007) suggests that if Durbin-Watson d statistic value is between 1.54 and 2.46 then the autocorrelation problem is not a threat.

The Durbin-Watson d statistics of the multiple regression in this study are presented in Table 6.11. The Durbin-Watson d statistics for models with ROA, CFO and Tobin's Q as dependent variable are between 1.8294 and 1.9495, 2.1213 and 2.1725, and 1.0229 and 1.1724, respectively. Most of the Durbin-Watson d statistics are not within the lower limit (d_L) and upper limit (d_U) critical value, indicating that the autocorrelation problem occurs. The autocorrelation does not exist in Model 1, Model 5 and Model 6 with ROA as dependent variable since they are in the range d_L and d_U. This study adopts the Generalized Least Square (GLS) FE to solve the autocorrelation in panel regression, which incorporates the nature of autocorrelation and heteroscedasticity in the estimation by transforming the variables with each firm weight (Wooldridge 2006).

Table 6.11 Durbin-Watson Statistics Test Results

No	Model	Durbin Watson Statistical Results			K include intercept	Durbin Watson Critical Value			
						n = 650		n = 600	
		ROA	CFO	Tobin's Q		d_L	d_U	d_L	d_U
1	BODSIZE	1.8645	2.1314	1.1562	5	1.8588	1.8835	1.8525	1.8793
2	BOCSIZE	1.8504	2.1605	1.1574	5	1.8588	1.8835	1.8525	1.8793
3	BOARDSIZE	1.8547	2.1505	1.1694	5	1.8588	1.8835	1.8525	1.8793
4	INDBOC	1.8294	2.1387	1.1576	5	1.8588	1.8835	1.8525	1.8793
5	BOCCOM	1.8692	2.1372	1.1447	5	1.8557	1.8867	1.8525	1.8793
6	ACSIZE	1.8648	2.1213	1.1472	5	1.8557	1.8867	1.8525	1.8793
7	ACEXP	1.9380	2.1578	1.0229	5	1.8491	1.8827	1.8525	1.8793

6.7.3 Heteroskedasticity Test

The other assumption in multiple regression is that the error term has a constant variance or is homoskedastic (that is, there is no heteroskedasticity). If the error term's variance is not constant, the assumption is violated. This study uses panel data that combines cross-sectional and time-series, which always causes a heteroskedasticity problem. In addition, the presence of outliers may also result in heteroskedastity problems.

This study employs the Lagrange Multiplier (LM) Breusch-Pagan test to detect the existence of heteroskedasticity as described in Chapter 4. The residuals of regression in each model and the auxiliary regressions are obtained by Eviews 8, while the Chi-square value is manually calculated. The null hypothesis is that there is no heteroskedasticity. The null hypothesis is rejected if the calculated Chi-square value is higher that the critical Chi-square value. This study applies Chi-square critical value at the 5% level of significance and degree of freedom based on the number of independent variables excluding the constant and error term.

The results of the LM Breusch-Pagan test for FE models, presented in Table 6.12, are higher than the Chi-square critical value at the 5% level of significance. Thus, the null hypothesis is rejected, showing that the heteroskedasticity problem occurs. The GLS is applied to FE models to correct the heteroskedasticity problem.

6.7.4 Multicollinearity Test

The correlation between independent variables can also detect the existence of the multicollinearity problem. When the correlation is higher than 0.80, multicollinearity may occur (Gujarati 2003). The Spearman rank-order correlation of the independent variables are 0.0829 – 0.8791 (Table 6.4). High correlation among the corporate governance characteristic variables may not create the multicollinearity problem because the regression of various corporate governance characteristics variables are carried out individually.

In addition, the results of variation inflation factor (VIF) test (Table 6.13) show that the VIF for all equations are more than 0 and less than 5, indicating that there is no multicollinearity problem. The highest VIF is 0.0438 in Model 6 when ROA served as dependent variable. The VIF result is consistent with correlation matrix to detect the presence of multicollinearity problem.

Table 6.12 LM Breusch-Pagan Test Results

No	Model	df	Chi-square critical value	ROA			CFO			Tobin's Q		
				Auxiliary regression R^2	LM-stat	H_0	Auxiliary regression R^2	LM-stat	H_0	Auxiliary regression R^2	LM-stat	H_0
1	BODSIZE	4	9.4877	0.2837	186.6746	Rejected	0.2655	174.6990	Rejected	0.3710	244.1180	Rejected
2	BOCSIZE	4	9.4877	0.2847	187.3326	Rejected	0.2653	174.5674	Rejected	0.3652	240.3016	Rejected
3	BOARDSIZE	4	9.4877	0.2843	187.0694	Rejected	0.2646	174.1068	Rejected	0.3663	241.0254	Rejected
4	INDBOC	4	9.4877	0.2852	187.6616	Rejected	0.2663	175.2254	Rejected	0.3656	240.5648	Rejected
5	BOCCOM	4	9.4877	0.2866	186.5766	Rejected	0.2702	175.9002	Rejected	0.3692	240.3492	Rejected
6	ACSIZE	4	9.4877	0.2920	190.0920	Rejected	0.2737	178.1787	Rejected	0.3685	239.8935	Rejected
7	ACEXP	4	9.4877	0.2876	179.1748	Rejected	0.2683	167.1509	Rejected	0.4920	306.5160	Rejected

Table 6.13 VIF Test Results

Panel A. BODSIZE, BOCSIZE and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Model	Model 1						Model 2						Model 3					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF
BODSIZE	0.0468	0.0014	-0.0003	0.0053	0.3731	0.0011												
BOCSIZE							-0.0128	0.0022	-0.0277	0.0057	0.1979	0.0005						
BOARDSIZE													0.0264	0.0030	-0.0205	0.0079	0.5737	0.0012
FSIZE	-0.0017	0.0048	-0.0071	0.0153	0.2981	0.0033	-0.0004	0.0038	-0.0065	0.0146	0.3121	0.0027	-0.0021	0.0045	-0.0057	0.0157	0.2792	0.0029
LEVERAGE	-0.0966	0.0030	-0.0486	0.0031	0.2720	0.0009	-0.0947	0.0029	-0.0458	0.0032	0.3961	0.0006	-0.0963	0.0030	-0.0466	0.0033	0.3802	0.0008
GROWTH	0.0185	0.0014	0.0146	0.0008	0.0753	0.0003	0.0193	0.0015	0.0152	0.0009	0.0965	0.0003	0.0199	0.0014	0.0154	0.001	0.0764	0.0003

Panel B. INDBOC and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Model	Model 4						Model 5					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF
INDBOC	0.1159	0.0011	0.0561	0.0025	0.6584	0.0006						
BOCCOM							0.0351	0.0012	0.0427	0.0014	0.2010	0.0006
FSIZE	-0.0043	0.0035	-0.0060	0.0145	0.2713	0.0035	-0.0035	0.0033	-0.0081	0.0115	0.2666	0.0031
LEVERAGE	-0.0919	0.0027	-0.0464	0.0035	0.3978	0.0008	-0.1017	0.0031	-0.0519	0.0029	0.2851	0.0009
GROWTH	0.0193	0.0013	0.0146	0.0009	0.1140	0.0003	0.0234	0.0015	0.0151	0.001	0.1137	0.0003

Table 6.13 contd.

Panel C. ACSIZE and ACEXP on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 6						Model 7					
	ROA		CFO		Tobin's Q		ROA		CFO		Tobin's Q	
	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF	Coeff	VIF
ACSIZE	0.0021	0.0012	-0.0732	0.0038	-0.0301	0.0002						
ACEXP							0.0213	0.0024	-0.0406	0.0033	0.0877	0.0008
FSIZE	-0.0028	0.0041	-0.0078	0.0104	0.2943	0.0027	-0.0016	0.0418	-0.0089	0.0114	0.3496	0.0034
LEVERAGE	-0.0981	0.0032	-0.0487	0.003	0.3280	0.0006	-0.0939	0.0354	-0.0331	0.0035	0.1921	0.0006
GROWTH	0.0207	0.0015	0.0147	0.0007	0.1002	0.0003	0.0180	0.0016	0.0147	0.0008	0.0861	0.0003

6.8 Results of Regression and Discussion of Relationship between Characteristics of Corporate Governance and Firm Performance

After performing the statistical validity test (which is presented in Section 6.7), the GLS Fixed Effects method is applied to examine the relationship between the characteristics of corporate governance and firm performance. Results of regressions after the statistical validity test carried out for various corporate governance characteristics and control variables as independent variables, and firm performance measured with ROA and CFO for short-term performance and Tobin's Q for long-term performance as dependent variables are presented in Table 6.14 Panel A and Panel B.

The F-statistics for each model (Model 1 to Model 7) is significant at the 1% level, showing that the models are satisfactorily fit. The adjusted R-squared, which shows the explanatory power of the model, are between 66% and 93% (ROA range from 91% to 93%, CFO range from 76% to 80%, and Tobin's Q range from 66% to 88%). These results suggest that the characteristics of corporate governance and control variables as independent variables can describes the variation of firm performance for 66% to 93%.

The relationship between BODSIZE and BOARDSIZE to firm performance measured with short-term performance (ROA) and long-term performance (Tobin's Q) are significantly positive at the 1% level but insignificant to CFO (Table 6.14 Panel A). Firms with larger size of BOD (BODSIZE) and larger total size of BOD and BOC (BOARDSIZE) have higher firm performance measured with ROA and Tobin's Q. The larger size of BOD (BODSIZE) enables each director to pay more attention to and give more focus to his or her area of responsibility related to the firm's business activities. The larger BOARDSIZE also allows to it to manage and supervise the firm activities better. Similarly, firms with larger BODSIZE would gain higher firm performance in terms of market value. Therefore, these aspects of Hypothesis 2a are accepted.

This result is consistent with the findings of Karamanou and Vafeas (2005), Beiner et al. (2006); Mangena et al. (2012); and Das and Dey (2016). Board size has a positive influence on probability of updating the management's earnings forecast (Karamanou and Vafeas, 2005) and on firm performance when measured with Tobin's Q (Beiner et al. 2006; Das & Dey 2016; Jameson, Prevost & Puthenpurackal 2014). Board size also has positive relationship with firm performance after presidential election period or in a political and economic crisis (Mangena et al., 2012) and mutual fund performance (Adams, JC, Nishikawa & Rao 2016).

Table 6.14 Regression Results of Characteristics of Corporate Governance and Firm Perfomance (ROA, CFO and Tobin's Q)

Panel A. BODSIZE, BOCSIZE and BOARDSIZE to Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1347 *	0.3193 **	-7.3081 ***	0.1924 ***	0.3431 **	-7.4764 ***	0.1619 **	0.3253 **	-7.5314 ***
	(1.8981)	(2.2350)	(-6.5480)	(3.0274)	(2.3911)	(-6.9458)	(2.3073)	(2.2497)	(-6.8441)
BODSIZE	0.0468 ***	-0.0003	0.3731 ***						
	(8.5077)	(-0.0265)	(3.9289)						
BOCSIZE				-0.0128 *	-0.0277 *	0.1979 ***			
				(-1.6665)	(-1.9239)	(2.6429)			
BOARDSIZE							0.0264 ***	-0.0205	0.5737 ***
							(2.6632)	(-1.1012)	(4.6737)
FSIZE	-0.0017	-0.0071	0.2981 ***	-0.0004	-0.0065	0.3121 ***	-0.0021	-0.0057	0.2792 ***
	(-0.6804)	(-1.4077)	(7.5857)	(-0.1679)	(-1.3232)	(8.3908)	(-0.8820)	(-1.1262)	(7.4922)
LEVERAGE	-0.0966 ***	-0.0486 ***	0.2720 **	-0.0947 ***	-0.0458 ***	0.3961 ***	-0.0963 ***	-0.0466 ***	0.3802 ***
	(-7.9109)	(-3.3633)	(2.0413)	(-7.8682)	(-3.1588)	(3.4811)	(-7.8738)	(-3.1317)	(3.1346)
GROWTH	0.0185 ***	0.0146 ***	0.0753 *	0.0193 ***	0.0152 ***	0.0965 **	0.0199 ***	0.0154 ***	0.0764 *
	(4.3572)	(3.8653)	(1.9329)	(4.4453)	(3.8241)	(2.5168)	(4.6447)	(3.7198)	(1.9402)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9363	0.8070	0.7510	0.9254	0.8049	0.7828	0.9302	0.8017	0.7596
Adjusted R-squared	0.9253	0.7736	0.7079	0.9125	0.7711	0.7452	0.9181	0.7673	0.7179
F-statistic	84.9218	24.1436	17.4142	71.6667	23.8198	20.8091	76.9552	23.3332	18.2390
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 6.14 contd.

Panel B. INDBOC, BOCCOM, ACSIZE and ACEXP on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 4			Model 5			Model 6			Model 7		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2351 ***	0.2623 *	-6.2733 ***	0.2531 ***	0.3324 ***	-5.8919 ***	0.2432 ***	0.4224 ***	-6.5990 ***	0.2001 ***	0.3859 ***	-8.1942 ***
	(3.9024)	(1.8421)	(-5.2885)	(4.2819)	(2.6734)	(-5.3645)	(3.5883)	(3.4188)	(-6.3357)	(3.0719)	(3.0463)	(-7.7636)
INDBOC	0.1159 ***	0.0561 *	0.6584 **									
	(6.5746)	(1.7722)	(2.5063)									
BOCCOM				0.0351 ***	0.0427 ***	0.2010 *						
				(4.1657)	(4.0479)	(1.6840)						
ACSIZE							0.0021	-0.0732 ***	-0.0301			
							(0.1543)	(-2.6582)	(-0.2613)			
ACEXP										0.0213 *	-0.0406 ***	0.0877
										(1.9539)	(-2.6725)	(0.7330)
FSIZE	-0.0043 **	-0.0060	0.2713 ***	-0.0035 *	-0.0081 *	0.2666 ***	-0.0028	-0.0078 *	0.2943 ***	-0.0016	-0.0089 **	0.3496 ***
	(-2.0666)	(-1.2185)	(6.6155)	(-1.7244)	(-1.8647)	(6.8598)	(-1.2480)	(-1.8876)	(7.9921)	(-0.7367)	(-2.0554)	(9.1862)
LEVERAGE	-0.0919 ***	-0.0464 ***	0.3978 ***	-0.1017 ***	-0.0519 ***	0.2851 **	-0.0981 ***	-0.0487 ***	0.3280 ***	-0.0939 ***	-0.0331 **	0.1921 *
	(-7.9997)	(-3.0362)	(3.1371)	(-8.2491)	(-3.7684)	(2.2202)	(-7.8321)	(-3.4710)	(2.9012)	(-7.3731)	(-2.1865)	(1.8562)
GROWTH	0.0193 ***	0.0146 ***	0.1140 ***	0.0234 ***	0.0151 ***	0.1137 ***	0.0207 ***	0.0147 ***	0.1002 ***	0.0180 ***	0.0147 ***	0.0861 **
	(4.7026)	(3.7775)	(3.0406)	(5.3863)	(3.6923)	(2.9867)	(4.7065)	(4.1919)	(2.6711)	(4.0828)	(3.9973)	(2.4319)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9289	0.8105	0.7183	0.9299	0.8106	0.7742	0.9252	0.8099	0.8073	0.9274	0.8255	0.8910
Adjusted R-squared	0.9165	0.7776	0.6695	0.9176	0.7774	0.7346	0.9121	0.7765	0.7735	0.9142	0.7937	0.8711
F-statistic	75.3784	24.6868	14.7199	75.5816	24.4009	19.5456	70.5212	24.2878	23.8805	70.0387	25.9241	44.7837
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	651	651	651	651	651	651	623	623	623

*** significant at 1%, ** significant at 5%, * significant at 10%

The relationship between BOCSIZE and long-term performance (Tobin's Q) is significantly positive at the 1% level, but significantly negative at the 10% level with short-term performance (ROA and CFO). Firms with larger BOCSIZE seem to have higher long-term firm performance measured with Tobin's Q, but lower short-term firm performance measured with ROA and CFO. Thus, Hypothesis 2a is accepted. The market prefers firms with larger size of BOC since more commissioners enable the BOC to provide better governance due to better supervisory and advisory functions on the BOD. Then, firms with larger BOCSIZE have better firm performance measured with Tobin's Q. This finding is consistent with Karamanou and Vafeas (2005); Mangena et al. (2012); and Jameson, Prevost and Puthenpurackal (2014). In contrast, larger size of BOC reduce short-term performance measured with ROA and CFO. Communication and coordination problems, which may appear for larger BOCSIZE, could be detrimental to firm performance and hence result in lower ROA and CFO. In addition, larger size of BOC will increase the firm's expenses such as benefits payments for commissioners and then reduce the ROA and CFO. These results are in line with the findings of Yermack (1996), Eisenberg et al. (1998), Pathan and Faff (2013) that boardsize has negative relationship with firm performance. However, these studies examined the one board system. There is no equivalent empirical study on the two board system that has observed the size of BOC.

The independence of the BOC (INDBOC) is found to have significant positive relationships with short-term firm performance measured with ROA and CFO, and long-term firm performance measured with Tobin's Q (Table 6.14 Panel B), which are significant at 1%, 10%, and 5%, respectively. Therefore, Hypothesis 2b is accepted. Firms with higher independence of BOC have higher short-term firm performance (ROA and CFO) and long-term firm performance (Tobin's Q). Higher independence of the BOC enables an increase in the BOC's supervisory and advisory roles. With higher independence, the BOC can carry out its duties without the influence of other parties and can provide better recommendations to the BOD. Better performance of the BOC roles could result in better monitoring mechanism to enhance firm performance.

This finding is consistent with the findings of Karamanou and Vafeas (2005); Liang, Xu and Jiraporn (2013); Liu, Wei and Xie (2014); Miletkov, Poulsen and Wintoki (2014); Wang, L (2015); Liu, Y et al. (2015); Farag and Mallin (2016); Malik and Makhdoom (2016); Torchia and Calabro (2016); Hussain, Rigoni and Orij (2016); Zhu et al. (2016); and Cavaco et al. (2017). The independence of the board also has an important role in the probability of making and updating management's earnings forecast and with the market reaction to a forecast (Karamanou & Vafeas 2005), inviting foreign investors (Miletkov, Poulsen & Wintoki 2014), financial transparency and disclosure (Torchia & Calabro 2016), and environmental and social sustainability performance (Hussain, Rigoni & Orij 2016). Additionally, another study that observes independent directors in privately controlled firms finds that independent directors provide positive impact on

firm performance measured with market-to-book ratio (Wang, L 2015). Several previous studies are unable to provide evidence on the relationship between the board independence and firm performance (Adams, M & Jiang 2016; Bhagat & Bolton 2008; Das & Dey 2016; Sun, J & Liu 2014; Waelchli & Zeller 2013), mutual fund performance (Adams, JC, Nishikawa & Rao 2016), and earnings management (Khalil & Ozkan 2016; Park, YW & Shin 2004).

The number of committees established in BOC (BOCCOM) has significant positive relationship with short-term firm performance (ROA and CFO) and long-term firm performance (Tobin's Q) at the 1%, 1% and 10% levels, respectively (Table 6.14 Panel B). Hence, Hypothesis 2c is accepted. Firms with more committees established in BOC have higher firm performance measured with ROA, CFO and Tobin's Q. The roles of committees established in the BOC are to support the BOC members in carrying out their supervisory and advisory roles so that more committees established in the BOC lead to better monitoring mechanisms through the supervisory and advisory functions of the BOC. Better supervisory and advisory roles of the BOC could improve firm performance. This result is consistent with the findings of Farag and Mallin (2016), where number of board committees is positively associated with firm performance measured with ROE.

The size of audit committee (ACSIZE) has insignificant relationship with short-term firm performance measured with ROA and long-term firm performance measured with Tobin's Q, but significant negative relationship with another short-term firm performance (CFO) at the 1% level (Table 6.14 Panel B). Then, Hypothesis 2d is rejected. This study does not find that the size of audit committee has significant positive relationship with firm performance. The requirement that there are at least 3 members in audit committee may contribute to the result that the size of audit committee (ACSIZE) does not have relationship with firm performance. It is observed that the majority of sample firms (551 out of 652 firm-years) have 3 members of audit committee as required. This finding is consistent with previous studies that the size of audit committee does not influence firm performance (Sun, J & Liu 2014) and financial reporting quality (Kusnadi et al. 2016).

The audit committee expertise in finance and/or accounting (ACEXP) has significant positive relationship with short-term firm performance measured with ROA at the 10% level, but has significant negative relationship with another short-term firm performance measured with CFO at the 1% level and insignificant with long-term firm performance measured with Tobin's Q (Table 6.14 Panel B). Therefore, Hypothesis 2e is partially accepted. These results show that firms with higher audit committee expertise in finance and/or accounting seem to have higher short-term firm performance measured with ROA. The expertise of audit committee in finance and/or accounting is very usefull to support the BOC roles. This result is consistent with Karamanou and Vafeas (2005), Choi, Han and Lee (2014) and Kusnadi et al. (2016). Audit committee expertise has a positive influence on the probability of updating management forecast, management forecast accuracy

especially for good news, and the market reaction to a forecast (Karamanou & Vafeas 2005). In firms with independent audit committee, financial expertise of audit committee members have positive influence on firm performance (Choi, Han & Lee 2014). Financial and accounting expertise of audit committee also lead to higher financial reporting quality (Kusnadi et al. 2016). On the other hand, this study reveals that firms with higher expertise in finance and/or accounting of audit committee have lower firm performance measured with CFO. Higher expertise in finance and/or accounting of audit committee may cause the firm to increase the expenses to hire the audit committee members, then reduce the firm's cash flow from operations.

In general, this study accepts Hypothesis 2 based on the significant positive relationship of several characteristics of corporate governance on firm performance measured with ROA, CFO and Tobin's Q.

The three control variables addressed in this study (the size of the firm, leverage and growth) have positive and negative relationship with firm performance as presented in Table 6.14 Panel A and Panel B. The size of the firm (FSIZE) has significant positive relationship at the 1% level on long-term firm performance measured with Tobin's Q in Model 1 to Model 7. This relationship implies that larger firms have higher long-term firm performance measured with Tobin's Q. This result is consistent with the literature that the size of the firm has significant positive relationship with firm performance measured with CARs (Cheung, Jing, et al. 2009), ROA (Chen, Y, Chen & Chen 2009; Chou, Chung & Yin 2013; Farag & Mallin 2016; Giroud & Mueller 2010; Jiang, G, Rao & Yue 2015; Liu, Y et al. 2015; Sami, Wang & Zhou 2011; Ullah 2017), Tobin's Q (Black et al. 2015; Jiang, G, Rao & Yue 2015; Sami, Wang & Zhou 2011; Ullah 2017), ROE (Farag & Mallin 2016; Jiang, G, Rao & Yue 2015; Liu, Y et al. 2015; Owusu & Weir 2016); EBITDA (Hwang & Kim 2016), net profit margin percentage (Arora & Sharma 2016; Waelchli & Zeller 2013); annual returns per full-time equivalent employee (Waelchli & Zeller 2013); and stock returns (Arora & Sharma 2016).

However, it is also found that the size of the firm (FSIZE) has significant negative relationship at the 5% and 10% levels with firm performance measured with ROA in Model 4 and Model 5 (column 2 and 5) and with CFO in Model 5, Model 6 and Model 7 (column 6, 9 and 12). These results confirm that larger firms have lower firm performance measured with ROA and CFO. This result is consistent with the finding of Beiner et al. (2006), Duru, Wang and Zhao (2013), Waelchli and Zeller (2013), Jameson, Prevost and Puthenpurackal (2014), Outa and Waweru (2016) and Zhu et al. (2016) that firm size has significant negative relationship with firm performance as well as free cash flow (Lin & Lin 2016).

Leverage (LEV) has a significant positive relationship with long-term firm performance measured with Tobin's Q at the 1% level in several equations, but significanty negative relationship at 1%

with short-term performance (ROA and CFO) in all regression equation models (Table 6.14 Panel A and Panel B). These relationships show that firms with higher debts and liabilities have higher long-term performance measured with Tobin's Q, but they have lower short-term performance measured with ROA and CFO. The role of leverage, which forced the firm to take the positive net present value projects, plays a part when Tobin's Q is used as firm performance measurement. This result is consistent with the findings of Kang et al. (2014), Xiao and Zhao (2014), Black et al. (2015), Jiang, G, Rao and Yue (2015) and Ullah (2017) that use Tobin's Q; Park et al. (2016) that use adjusted Tobin's Q and market-to-book value; and Aharony, Wang and Yuan (2010), Arora and Sharma (2016) and Ullah (2017) that use ROA to measure firm performance.

In contrast, leverage (LEV) seems to be negatively correlated when short-term performance (ROA and CFO) serves as firm performance measurement. Having more liabilities may cause the firm to pay more interest, then results in lower ROA and lower CFO. This result is consistent with the findings of Park and Shin (2004), Chen, Chen and Chen (2009), Duru, Wang and Zhao (2013), Waelchli and Zeller (2013), Liu, Y, Wei and Xie (2014), Sun, J and Liu (2014), Upadhyay, Bhargava and Faircloth (2014), Jiang, G, Rao and Yue (2015), Liu, Y et al. (2015), Chauhan, Lakshmi and Dey (2016), Hwang and Kim (2016) and Outa and Waweru (2016).

The growth of the firm (GROWTH) has a significant positive relationship on firm performance measured with both accounting-based performance as short-term performance (ROA and CFO) and market-based performance as long-term performance (Tobin's Q) as shown by Table 6.14 Panel A and Panel B. When accounting-based performance (ROA and CFO) are used to measure firm performance, the significance is at the 1% or 5% levels in all models. When market-based performance (Tobin's Q) is used to measure firm performance, the significance is at the 1%, 5% or 10% levels in all models. This finding is consistent with previous studies that the growth of the firm is significantly positive associated with firm performance measured with Tobin's Q (Beiner et al. 2006; Jameson, Prevost & Puthenpurackal 2014; Owusu & Weir 2016; Ullah 2017), EBITDA to sales ratio, stock liquidity (Huyghebaert & Wang 2012), ROE (Owusu & Weir 2016), and ROA (Liu, Y et al. 2015; Ullah 2017; Wan & Wong 2015). In contrast, Park et al. (2016) find that growth has significant negative association with firm performance measured with industry adjusted Tobin's Q, which is measured with Tobin's Q minus industry average Tobin's Q.

6.9 Summary of the Chapter

This chapter presents and discusses the results related to the second specific objective of this study, which is to examine the relationship between the characteristics of corporate governance and firm performance.

By applying the GLS fixed effects method, except for the size of the BOC on ROA and CFO, and the expertise in finance and accounting of audit committee on CFO, this study provides evidence that the characteristics of corporate governance have significant positive relationships with firm performance. The size of the BOD, and the total size of the BOD and BOC, have significant positive relationship with firm performance measured with short-term performance (ROA) and long-term performance (Tobin's Q), but an insignificant relationship to CFO. The size of the BOC has a significant negative relationship with short-term performance (ROA and CFO) and a significant positive relationship with long-term performance (Tobin's Q). The independence of the BOC has a significant positive relationship with short-term performance (ROA and CFO) and long-term performance (Tobin's Q). The committees established in the BOC has a significant positive relationship with firm performance measured with ROA and CFO for short-term performance and Tobin's Q for long-term performance. In contrast, the positive impact is not found for the relationship between the size of audit committee and firm performance. The size of audit committee has an insignificant relationship with firm performance measured with ROA and Tobin's Q, and a significant negative relationship with CFO. The audit committee expertise in finance and/or accounting has a significant positive relationship with ROA, a significant negative relationship with CFO, and is insignificant with Tobin's Q. Overall, this study reveals that characteristics of corporate governance have positive relationship with firm performance.

The results of this study concerning the combined effects of the characteristics of corporate governance and RPTs on firm performance, and the interaction effects between the characteristics of corporate governance and RPTs on the relationship between RPTs and firm performance are presented and discussed in the following chapter.

CHAPTER 7

RESULTS AND DISCUSSION: RELATED PARTY TRANSACTIONS, CHARACTERISTICS OF CORPORATE GOVERNANCE AND FIRM PERFORMANCE

7.1 Introduction

This chapter presents and discusses the results related to the third and fourth specific objectives of this study. The third specific objective of this study is to examine the effects of RPTs and characteristics of corporate governance on firm performance, while the fourth specific objective of this study is to examine the interaction effects of the characteristics of corporate governance and RPTs on firm performance, short-term and long-term performance. The following research questions are answered to achieve these objectives:

Research Question 3:	Is there a significant effect of RPTs and the characteristics of corporate governance on firm performance?
Research Question 4:	Is the relationship between RPTs and firm performance moderated by the characteristics of corporate governance?

To reflect the various types of RPTs that are addressed in this study and several characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC and committees established in the BOC), Research Question 3 is detailed in the following specific research questions:

Research Question 3a :	While controlling each characteristic of corporate governance, is there a significant effect of total size of RPTs (RPTTOTAL) on firm performance?
Research Question 3b :	While controlling each characteristic of corporate governance, is there a significant effect of RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) on firm performance?
Research Question 3c :	While controlling each characteristic of corporate governance, is there a significant effect of RPTs based on the status of related party type: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) on firm performance?
Research Question 3d :	While controlling each characteristic of corporate governance, is there a significant effect of RPTs entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC) and RPTs other affiliates (RPTENTITY_OAFF) on firm performance?

Research Question 3e : While controlling each type of RPTs, is there a significant effect of size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) on firm performance?

Research Question 3f : While controlling each type of RPTs, is there a significant effect of independence of the BOC (INDBOC) on firm performance?

Research Question 3g : While controlling each type of RPTs, is there a significant effect of committees established in BOC (BOCCOM) on firm performance?

Similarly, Research Question 4 is elaborated in the following specific research questions:

Research Question 4a : Is the relationship between total size of RPTs (RPTTOTAL) and firm performance moderated by the characteristics of corporate governance?

Research Question 4b : Is the relationship between RPTs based on nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES), and firm performance moderated by the characteristics of corporate governance?

Research Question 4c : Is the relationship between RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) and firm performance moderated by the characteristics of corporate governance?

Research question 4d : Is the relationship between sub-categorises of RPTs entity based on the nature of the relationship: RPTs shareholders (RPTENTITY_SH), RPTs associates and joint firms (RPTENTITY_ASSC) and RPTs other affiliates (RPTENTITY_OAFF) and firm performance moderated by the characteristics of corporate governance?

7.2 Endogeneity Test

Similar to Chapter 6 concerning endogeneity issues on the relationship between corporate governance (especially board characteristics) and firm performance (Beiner et al. 2006; Bhagat & Bolton 2008; Cheng 2008; Mangena, Tauringana & Chamisa 2012; Wintoki, Linck & Netter 2012), this study also conducts an endogeneity test when examining the combined effects of RPTs and characteristics of corporate governance on firm performance. Following Wooldridge (2006), this study employs the Durbin-Wu-Hausman test to check the existence of endogeneity by carrying out OLS regression before choosing the optimum method among OLS, FE and RE methods. Refering to Wintoki, Linck and Netter (2012), this study uses past RPTs (the previous year's RPTs) and board structure as instrument variables when performing the Durbin-Wu-Hausman test to find the impact of those variables on RPTs (RPTs as dependent variable). First, the OLS regression of current RPTs as dependent variable and the previous year's RPTs, characteristics of corporate governance, previous year's firm performance, and control variables as independent variables. Each RPTs (RPTs total; RPTs based on the transactions: RPTs sales, RPTs purchases, RPTs

lending, RPTs liabilities; RPTs based on the status of related party: RPTs person and RPTs entity; RPTs entity based on the nature of relationship: RPTs shareholders, RPTs associates, RPTs other affiliates) are regressed on the previous year's such RPTs, characteristics of corporate governance (BODSIZE, BOCSIZE, BOARDSIZE, INDBOC, and BOCCOM), previous year's firm performance (previous year's ROA, previous year's CFO and previous year's Tobin's Q, respectively) and control variables as shown by Model 1 to Model 90 in Appendix E to obtain the residual.

Then, augmented OLS regression (in the Durbin-Wu-Hausman test) is conducted by including the residual obtained from the first OLS regression, RPTs, characteristics of corporate governance and control variables as independent variables and firm performance as dependent variable. The results of the augmented OLS regression shows that the coefficient of residual from the first OLS regression are found to be insignificant in 135 out of 210 equations (64.29%), except for the residuals of several regression as in Model 1 to Model 70 (Appendix F and Appendix G). Overall, the results indicate that OLS estimators are consistent and such characteristics of corporate governance variables are exogenous. Then, this study proceeds the analysis by choosing the optimum method among OLS, FE and RE methods.

Similar to Chapter 6, this study does not use the Two Stage Least Squares (2SLS) method because it is less efficient than OLS when the explanatory variables are exogenous (Wooldridge 2006). This study also does not use the Generalised Method of Moments (GMM) due to the limited data availability and because it will reduce the number of observations. This study uses 658 firm-year observations for BODSIZE, BOCSIZE, BOARDSIZE and INBOC, 651 firm-year observations for BOCCOM. Analysis using GMM will reduce the observations to 470, 376 or 282 firm-year observations with lag 1, lag 2 or lag 3 for BODSIZE, BOCSIZE, BOARDSIZE and INBOC, respectively, 467, 375 or 281 firm-year observations with lag 1, lag 2 or lag 3 for BOCCOM, respectively.

7.3 Results of the Optimum Method Selection

This section discusses the selection of the optimum method among OLS, FE and RE methods. The results of the optimum method selection are presented in Appendix H.

The F-statistics from the redundant fixed effects test is applied to choose the better method between the OLS method and FE method. The F-statistics in all equation models (Appendix H Panel A to Panel C columns 3, 6 and 9) to examine the combined effect of RPTs and the characteristics of corporate governance on firm performance measured with ROA, CFO and Tobin's Q as dependent variables are found to be significant at the 1% level, suggesting that FE methods are better compared to the OLS method. For example, in the first equation model with

RPTTOTAL, BODSIZE and control variables as independent variables and ROA as dependent variable, the F-statistic of the redundant fixed effect test shows that the significance is at the 1% level, showing that the FE method is better than the OLS method.

In addition, the F-statistics of the Hausman test is applied to select the better method between the FE method and the RE method. The significant F-statistics of the Hausman-test (Appendix H columns 4, 7 and 10) reveal that the FE method is the better method for the majority of equation models (120 out of 210 equations or 57%). The LM-test is not needed in this study because the optimum methods can be selected based on the redundant fixed effects test results and the Hausmant test results.

Though the RE method is suggested as the better method for several models, this study applies the FE method in regression analysis to examine the combined effects of RPTs and corporate governance characteristics on firm performance because this method addresses dummy variables to explain the impacts of omitted variables that are particular to each cross-sectional unit and remain constant over time. The FE method also deals with the effects that are particular to each time period and the same for all cross-sectional units (Hsiao, 2014). Additionally, the FE method is the optimum method for most equation models (120 out of 210 equation models or 57%) and the FE method results provide higher adjusted R-squared compared to the RE method. Furthermore, the trend analysis also shows that there are no significant changes in RPTs and corporate governance characteristics variables over the study time period (from 2007 to 2013).

The results of the Durbin-Watson test for the equation models using the FE method are presented in Appendix I. Based on the results of the Durbin-Watson test, most of the Durbin-Watson *d* Statistics for the equations models are not within the lower limit (d_L) and upper limit (d_U) critical value, indicating that the autocorrelation problem occurs (191 out of 210 or 90,95%). This study adopts the Generalized Least Square (GLS) FE to solve the autocorrelation that exists in panel regression, which incorporates the nature of autocorrelation and heteroskedasticity in the estimation by transforming the variables with each firm weight (Wooldridge 2006).

7.4 Combined Effects of RPTs and Characteristics of Corporate Governance on Firm Performance

The effects of RPTs on firm performance are discussed in Chapter 5 and the effects of the characteristics of corporate governance on firm performance are reported in Chapter 6. This study carries out further analysis to investigate the combined effects of RPTs and the characteristics of corporate governance on firm performance by adding together the RPTs, each of the characteristics of corporate governance and control variables in the regression models.

Within the perspective of contracting theory and stakeholder theory, a firm can be involved in a contractual relationship with other parties, including related parties in the form of RPTs, and should also consider its stakeholders. In addition, corporate governance could improve firm performance in various ways, such as better oversight to create value maximising and efficient operating activities, and the reduction of tunneling, asset stripping, and other diverting of firm assets (Love 2011). Therefore, the presence of corporate governance through its characteristics are expected to have significant influence on the relationship between RPTs and firm performance.

This study employs RPTs, characteristics of corporate governance and firm characteristics as independent variables to examine the combined effects of RPTs and characteristics of corporate governance on short-term firm performance (ROA and CFO) and long-term firm performance (Tobin's Q). The results of the combined effects of RPTs and characteristics of corporate governance on firm performance are presented in Tables 7.1 to 7.4, discussed in sections 7.2.1 to 7.2.5, and summarised in Section 7.2.6

The results (Tables 7.1 to 7.4) show that all models with GLS fixed effects method (Model 1 to Model 70) have significant F- statistic value at the 1% level, thereby confirming that the models are fit to examine the combined effects of RPTs and characteristics of corporate governance on firm performance. The adjusted R-squared of the models are range from 0.6666 to 0.9286 (ROA: 0.9092 to 0.9286, CFO: 0.7661 to 0.7822, and Tobin's Q: 0.6666 to 0.8244). These results suggest that firm performance measured with ROA provide a better explanation concerning the combined effects of RPTs and the characteristics of corporate governance on firm performance.

7.4.1 The Effects of Total Size of RPTs on Firm Performance while Controlling the Characteristics of Corporate Governance

Total size of RPTs (RPTTOTAL), as shown in Table 7.1 Panel A, is found to have significant positive effects on short-term firm performance measured with ROA at the 1% level while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE), and total size of the BOD and BOC (BOARDSIZE) as in Model 1 (column 2), Model 2 (column 5) and Model 3 (column 8), respectively. The effects are insignificant when firm performance is measured with CFO (columns 3, 6 and 9) and Tobin's Q (columns 4, 7 and 10). When independence of the BOC (INDBOC) and committees established in the BOC (BOCCOM) are controlled, the results are also similar as presented in Table 7.1 Panel B. Therefore, Hypothesis 3a is accepted. This result is consistent with the results when the regression models use only the total size of RPTs (RPTTOTAL) and firm characteristics (FSIZE, LEV and GROWTH) as independent variables (refer to Section 5.7.1 of Chapter 5).

Table 7.1 Regression Results of Total Size of RPTs and Characteristics of Corporate Governance on Firm Performance

Panel A. RPTTOTAL and BODSIZE, BOCSIZE, BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1020 (1.4880)	0.3209 ** (2.2315)	-7.4162 *** (-6.6260)	0.1399 ** (2.1668)	0.3449 ** (2.3895)	-7.6343 *** (-7.0219)	0.1152 * (1.6623)	0.3256 ** (2.2391)	-7.6423 *** (-6.9184)
RPTTOTAL	0.0198 *** (3.3641)	-0.0009 (-0.0716)	0.0783 (1.0351)	0.0203 *** (3.0184)	-0.0011 (-0.0813)	0.0571 (0.6858)	0.0198 *** (3.1496)	-0.0001 (-0.0073)	0.0695 (0.9160)
BODSIZE	0.0444 *** (7.9995)	-0.0002 (-0.0195)	0.3706 *** (3.8995)						
BOCSIZE				-0.0137 * (-1.7952)	-0.0276 * (-1.9170)	0.1900 ** (2.4975)			
BOARDSIZE							0.0253 *** (2.6221)	-0.0205 (-1.0915)	0.5675 *** (4.5919)
FSIZE	-0.0006 (-0.2470)	-0.0072 (-1.4106)	0.3017 *** (7.6588)	0.0013 (0.5763)	-0.0066 (-1.3290)	0.3181 *** (8.4721)	-0.0006 (-0.2549)	-0.0058 (-1.1200)	0.2834 *** (7.5677)
LEVERAGE	-0.0975 *** (-8.1683)	-0.0483 *** (-3.3303)	0.2439 * (1.8214)	-0.0936 *** (-7.8656)	-0.0454 *** (-3.1218)	0.3596 *** (3.1083)	-0.0955 *** (-7.8876)	-0.0465 *** (-3.1158)	0.3481 *** (2.8269)
GROWTH	0.0184 *** (4.4627)	0.0146 *** (3.8581)	0.0756 * (1.9441)	0.0196 *** (4.6103)	0.0152 *** (3.8187)	0.0976 ** (2.5320)	0.0197 *** (4.7442)	0.0154 *** (3.7160)	0.0761 * (1.9257)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9365	0.8069	0.7523	0.9259	0.8047	0.7826	0.9310	0.8016	0.7588
Adjusted R-squared	0.9254	0.7730	0.7088	0.9129	0.7705	0.7445	0.9189	0.7668	0.7165
F-statistic	84.1177	23.8305	17.3195	71.2272	23.5100	20.5392	76.9261	23.0473	17.9414
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.1 contd.

Panel B. RPTTOTAL and INDBOC, BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 4			Model 5		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1938 ***	0.2645 *	-6.3717 ***	0.1841 ***	0.3323 ***	-6.2215 ***
	(3.1550)	(1.8497)	(-5.3169)	(2.8276)	(2.6550)	(-5.6202)
RPTTOTAL	0.0227 ***	0.0007	0.0175	0.0186 ***	0.0018	0.0673
	(3.4776)	(0.0606)	(0.1911)	(2.8920)	(0.1482)	(0.6868)
INDBOC	0.1188 ***	0.0552 *	0.6454 **			
	(6.6247)	(1.7346)	(2.4237)			
BOCCOM				0.0331 ***	0.0422 ***	0.2140 *
				(4.2928)	(3.9716)	(1.8057)
FSIZE	-0.0031	-0.0061	0.2753 ***	-0.0012	-0.0081 *	0.2777 ***
	(-1.4632)	(-1.2293)	(6.6545)	(-0.5542)	(-1.8594)	(7.0994)
LEVERAGE	-0.0931 ***	-0.0463 ***	0.3647 ***	-0.1028 ***	-0.0517 ***	0.2552 **
	(-8.1301)	(-3.0154)	(2.8217)	(-8.4190)	(-3.7210)	(1.9829)
GROWTH	0.0191 ***	0.0145 ***	0.1143 ***	0.0222 ***	0.0150 ***	0.1119 ***
	(4.7374)	(3.7597)	(3.0182)	(5.2349)	(3.6718)	(2.9254)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9301	0.8102	0.7185	0.9305	0.8102	0.7792
Adjusted R-squared	0.9179	0.7770	0.6691	0.9181	0.7765	0.7400
F-statistic	75.9235	24.3537	14.5576	75.3835	24.0475	19.8822
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

7.4.2 The Effects of RPTs Based on the Nature of the Transaction (RPTs Sales, RPTs Purchases, RPTs Lending and RPTs Liabilities) on Firm Performance while Controlling the Characteristics of Corporate Governance

RPTSALES and RPTPURCHASES have significant positive effects on short-term firm performance measured with ROA while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) as shown in Table 7.2 Panel A.1 to Panel A.3, respectively. RPTSALES have significant positive effects on firm performance measured with ROA at the 10% level in Model 6 (Panel A.1 column 2), but are insignificant with CFO and Tobin's Q while controlling BODSIZE. Similar results are obtained when size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) are controlled as shown in Model 9 and Model 11 (Panel A.2 columns 2 and 8) and Model 12 and Model 14 (Panel A.3 columns 2 and 8), respectively. The significance is stronger at the 5% level in Model 9 and Model 11. RPTPURCHASES also have significant positive effects on firm performance measured with ROA, but are insignificant with CFO and Tobin's Q while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE). Significance is at the 5% level in Model 7 and Model 8 (Panel A.1 columns 5 and 8), at the 10% level in Model 10 and Model 11 (Panel A.2 columns 5 and 8), and at the 5% level in Model 13 and Model 14 (Panel A.3 columns 5 and 8).

RPTLENDING and RPTLIABILITIES have significant negative and significant positive effects, respectively, on firm performance while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) as presented in Table 7.2 Panel A.4 to Panel A.6. RPTLENDING has significant negative effects at the 5% level on long-term firm performance measured with Tobin's Q in Model 15 and Model 17 (Panel A.4 columns 4 and 10), but is insignificant with short-term performance (ROA and CFO) while controlling size of the BOD (BODSIZE). The significance is at the 10% level in Model 18 and Model 20 (Panel A.5 columns 4 and 10) when size of the BOC (BOCSIZE) is controlled. When total size of the BOD and BOC (BOARDSIZE) is controlled, the significance is at the 5% level in Model 21 (Panel A.6 column 4) and the 10% level in Model 23 (Panel A.6 column 10). RPTLIABILITIES have significant positive effects at the 5% level on firm performance measured with CFO while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE), and total size of the BOD and BOC (BOARDSIZE) as shown in Model 18 and Model 19 (Panel A.4 columns 6 and 9), Model 19 and Model 20 (Panel A.5 columns 6 and 9), and Model 22 and Model 23 (Panel A.6 columns 6 and 9), respectively. The effects are insignificant when firm performance is measured with ROA and Tobin's Q.

RPTSALES and RPTPURCHASES have significant positive effects on firm performance while controlling independence of the BOC (INDBOC) as presented in Table 7.2 Panel B.1. RPTSALES has significant positive effect at the 5% level on short-term firm performance measured with ROA

while controlling independence of the BOC (INDBOC) in Model 24 and Model 26 (Panel B.1 columns 2 and 8), but it is insignificant with CFO and long–term performance (Tobin's Q). RPTPURCHASES has significant positive effects on short-term firm performance measured with ROA at the 10% level in Model 25 (Panel B.1 column 5) and at the 5% level in Model 26 (Panel B.1 column 8) while controlling independence of the BOC (INDBOC). The effects are insignificant when firm performance is measured with CFO and long-term firm performance (Tobin's Q).

RPTLENDING and RPTLIABILITIES have significant negative and significant positive effects on firm performance while controlling independence of the BOC (INDBOC) as shown in Table 7.2 Panel B.2. RPTLENDING has significant negative effects at the 5% level on long-term firm performance measured with Tobin's Q while controlling independence of the BOC (INDBOC) in Model 27 and Model 29 (Panel B.2 columns 4 and 10). The effects are insignificant when firm performance is measured with short-term firm performance (ROA and CFO). RPTLIABILITIES has significant positive effects at the 5% level on firm performance measured with CFO while controlling independence of the BOC (INDBOC) in Model 28 and Model 29 (Panel B.2 columns 6 and 9). The effects of RPTLIABILITIES are insignificant when ROA and Tobin's Q are used to measure firm performance.

RPTSALES has significant positive effects, but RPTPURCHASES has insignificant effects on firm performance while controlling committees established in the BOC (BOCCOM) as shown in Table 7.2 Panel C.1. The effects of RPTSALES on short-term firm performance measured with ROA while controlling committees established in the BOC (BOCCOM) are significant positive at the 5% level in Model 30 (Panel C.1 column 2) and at the 10% level in Model 32 (Panel C.1 column 8). The effects are insignificant when CFO and Tobin's Q are used to measure firm performance. The effects of RPTPURCHASES on firm performance while controlling the committees established in the BOC (BOCCOM) are insignificant for all firm performance measurements (ROA, CFO and Tobin's Q).

RPTLENDING and RPTLIABILITIES have significant negative and significant positive effects, respectively, on firm performance while controlling committees established in the BOC (BOCCOM) as shown in Table 7.2 Panel C.2. While controlling committees established in the BOC (BOCCOM), the effects of RPTLENDING on firm performance measured with Tobin's Q are significant negative at the 5% level in Model 33 and Model 35 (Panel C.2 columns 4 and 10). The effects are insignificant with ROA and CFO. RPTLIABILITIES has significant positive effects on firm performance measured with CFO at the 5% level in Model 34 (Panel C.2 column 6) and at the 10% level in Model 35 (Panel C.2 column 9) while controlling committees established in the BOC (BOCCOM). The effects are insignificant when firm performance is measured with ROA and Tobin's Q.

Table 7.2 Regression Results of RPTs Based on the Nature of the Transaction (RPTs Sales, RPTs Purchases, RPTs Lending and RPTs Liabilities) and Characteristics of Corporate Governance on Firm Performance

Panel A.1. RPTSALES, RPTPURCHASES and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 6			Model 7			Model 8		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1092 (1.5331)	0.3197 ** (2.2213)	-7.1196 *** (-6.2746)	0.1268 * (1.7975)	0.3276 ** (2.2897)	-7.3112 *** (-6.5253)	0.1021 (1.4424)	0.3271 ** (2.2695)	-7.1047 *** (-6.2269)
RPTSALES	0.0271 * (1.6600)	-0.0039 (-0.1568)	0.0247 (0.1396)				0.0263 (1.6441)	-0.0020 (-0.0789)	0.0177 (0.0988)
RPTPURCHASES				0.0182 ** (2.2690)	-0.0263 (-1.3126)	0.1176 (0.7766)	0.0184 ** (2.3479)	-0.0261 (-1.3053)	0.0751 (0.4755)
BODSIZE	0.0436 *** (7.4188)	0.0000 (-0.0018)	0.3196 *** (3.2020)	0.0472 *** (8.6312)	-0.0003 (-0.0261)	0.3760 *** (3.9212)	0.0444 *** (7.6377)	-0.0002 (0.0119)	0.3225 *** (3.1942)
FSIZE	-0.0007 (-0.3031)	-0.0071 (-1.4001)	0.2938 *** (7.3422)	-0.0015 (-0.6264)	-0.0073 (-1.4388)	0.2976 *** (7.5452)	-0.0006 (-0.2628)	-0.0073 (-1.4254)	0.2928 *** (7.2798)
LEVERAGE	-0.0930 *** (-7.7452)	-0.0486 *** (-3.3646)	0.3123 ** (2.3102)	-0.0948 *** (-7.8646)	-0.0498 *** (-3.4410)	0.2703 ** (2.0281)	-0.0916 *** (-7.7269)	-0.0497 *** (-3.4368)	0.3126 ** (2.3083)
GROWTH	0.0192 *** (4.5162)	0.0146 *** (3.8664)	0.0782 ** (2.0128)	0.0185 *** (4.3926)	0.0147 *** (3.8598)	0.0743 * (1.9092)	0.0191 *** (4.5516)	0.0146 *** (3.8602)	0.0780 ** (2.0063)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9393	0.8066	0.7516	0.9358	0.8067	0.7505	0.9386	0.8063	0.7508
Adjusted R-squared	0.9286	0.7727	0.7080	0.9245	0.7728	0.7067	0.9278	0.7720	0.7066
F-statistic	88.2554	23.7896	17.2577	83.0769	23.7975	17.1570	86.2233	23.4647	16.9808
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel A.2. RPTSALES, RPTPURCHASES and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 9			Model 10			Model 11		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1379 **	0.3430 **	-7.2350 ***	0.1881 ***	0.3508 **	-7.5072 ***	0.1346 **	0.3501 **	-7.2624 ***
	(2.0893)	(2.3795)	(-6.5427)	(2.9730)	(2.4422)	(-7.0003)	(2.0459)	(2.4258)	(-6.5826)
RPTSALES	0.0381 **	-0.0026	-0.0906				0.0367 **	-0.0009	-0.1005
	(2.0518)	(-0.1022)	(-0.5601)				(1.9951)	(-0.0336)	(-0.6080)
RPTPURCHASES				0.0164 *	-0.0248	0.0927	0.0158 *	-0.0247	0.0816
				(1.8035)	(-1.2178)	(0.5848)	(1.7858)	(-1.2129)	(0.5096)
BOCSIZE	-0.0149 *	-0.0276 *	0.1834 **	-0.0128 *	-0.0265 *	0.1924 **	-0.0148 *	-0.0266 *	0.1775 **
	(-1.9184)	(-1.9110)	(2.3587)	(-1.6749)	(-1.8469)	(2.5814)	(-1.9137)	(-1.8397)	(2.2909)
FSIZE	0.0014	-0.0065	0.3046 ***	-0.0003	-0.0067	0.3131 ***	0.0014	-0.0067	0.3056 ***
	(0.6355)	(-1.3160)	(7.9930)	(-0.1525)	(-1.3643)	(8.4550)	(0.6422)	(-1.3527)	(8.0445)
LEVERAGE	-0.0902 ***	-0.0456 ***	0.3994 ***	-0.0919 ***	-0.0471 ***	0.3949 ***	-0.0876 ***	-0.0469 ***	0.3986 ***
	(-7.6107)	(-3.1410)	(3.4473)	(-7.6434)	(-3.2482)	(3.5077)	(-7.4127)	(-3.2270)	(3.4748)
GROWTH	0.0205 ***	0.0152 ***	0.1014 ***	0.0192 ***	0.0152 ***	0.0954 **	0.0203 ***	0.0152 ***	0.1006 ***
	(4.7246)	(3.8244)	(2.6263)	(4.4453)	(3.8302)	(2.4913)	(4.7292)	(3.8289)	(2.6081)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9295	0.8045	0.7767	0.9249	0.8048	0.7864	0.9289	0.8045	0.7798
Adjusted R-squared	0.9172	0.7702	0.7376	0.9118	0.7706	0.7489	0.9163	0.7698	0.7407
F-statistic	75.2315	23.4739	19.8409	70.2750	23.5197	20.9960	73.6036	23.1911	19.9587
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel A.3. RPTSALES, RPTPURCHASES and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 12			Model 13			Model 14		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1204 *	0.3245 **	-7.3411 ***	0.1543 **	0.3335 **	-7.5590 ***	0.1134	0.3322 **	-7.3650 ***
	(1.6935)	(2.2325)	(-6.5249)	(2.2097)	(2.3026)	(-6.8652)	(1.6017)	(2.2815)	(-6.5321)
RPTSALES	0.0299 *	-0.0008	-0.0266				0.0285 *	0.0011	-0.0356
	(1.7156)	(-0.0313)	(-0.1434)				(1.6620)	(0.0408)	(-0.1897)
RPTPURCHASES				0.0172 **	-0.0251	0.1138	0.0168 **	-0.0251	0.0833
				(2.0535)	(-1.2654)	(0.7629)	(2.0361)	(-1.2641)	(0.5436)
BOARDSIZE	0.0239 **	-0.0204	0.5491 ***	0.0275 ***	-0.0195	0.5741 ***	0.0253 **	-0.0197	0.5494 ***
	(2.3796)	(-1.0811)	(4.2211)	(2.8081)	(-1.0506)	(4.6457)	(2.5547)	(-1.0425)	(4.1863)
FSIZE	-0.0006	-0.0057	0.2743 ***	-0.0020	-0.0060	0.2797 ***	-0.0006	-0.0059	0.2748 ***
	(-0.2526)	(-1.1113)	(7.2181)	(-0.8633)	(-1.1712)	(7.5112)	(-0.2451)	(-1.1506)	(7.2267)
LEVERAGE	-0.0926 ***	-0.0465 ***	0.3977 ***	-0.0937 ***	-0.0479 ***	0.3788 ***	-0.0901 ***	-0.0478 ***	0.3978 ***
	-7.6893	(-3.1190)	(3.2106)	(-7.6925)	(-3.2221)	(3.1410)	(-7.5229)	-3.2043	(3.2240)
GROWTH	0.0208 ***	0.0154 ***	0.0809 **	0.0198 ***	0.0154 ***	0.0749 *	0.0206 ***	0.0154 ***	0.0801 **
	-4.8694	(3.7210)	(2.0427)	(4.6498)	(3.7166)	(1.9031)	(4.8708)	(3.7162)	(2.0211)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9340	0.8015	0.7546	0.9298	0.8014	0.7606	0.9335	0.8013	0.7550
Adjusted R-squared	0.9224	0.7667	0.7116	0.9175	0.7666	0.7186	0.9216	0.7661	0.7115
F-statistic	80.6603	23.0301	17.5424	75.5435	23.0188	18.1175	79.0642	22.7313	17.3665
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel A.4. RPTLENDING, RPTLIABILITIES and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 15			Model 16			Model 17		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1590 **	0.2826 *	-6.6269 ***	0.1239 *	0.3141 **	-7.7514 ***	0.1477 **	0.2867 **	-7.0523 ***
	(2.1421)	(1.9562)	(-5.8540)	(1.7558)	(2.1870)	(-6.8063)	(2.0026)	(1.9840)	(-6.0882)
RPTLENDING	-0.0554	0.1036	-0.8290 **				-0.0603	0.1019	-0.8108 **
	(-1.2412)	(1.0582)	(-2.1591)				(-1.3446)	(1.0475)	(-1.9708)
RPTLIABILITIES				0.0154	0.0799 **	0.1029	0.0193	0.0784 **	0.0936
				(0.6108)	(2.2446)	(0.2917)	(0.7474)	(2.1948)	(0.2652)
BODSIZE	0.0497 ***	-0.0026	0.3839 ***	0.0457 ***	-0.0002	0.3517 ***	0.0485 ***	-0.0022	0.3596 ***
	(9.5429)	(-0.2063)	(4.0185)	(8.2212)	(-0.0162)	(3.7096)	(9.1602)	(-0.1699)	(3.7637)
FSIZE	-0.0025	-0.0058	0.2744 ***	-0.0011	-0.0066	0.3160 ***	-0.0020	-0.0057	0.2919 ***
	(-1.0010)	(-1.1455)	(6.8865)	(-0.4670)	(-1.3119)	(7.8585)	(-0.7784)	(-1.1227)	(7.1368)
LEVERAGE	-0.1008 ***	-0.0476 ***	0.2890 **	-0.1030 ***	-0.0742 ***	0.1916	-0.1088 ***	-0.0728 ***	0.2047
	(-8.0886)	(-3.2653)	(2.1785)	(-7.6888)	(-5.1009)	(1.3330)	(-7.9719)	(-4.9657)	(1.4279)
GROWTH	0.0197 ***	0.0147 ***	0.0789 **	0.0189 ***	0.0149 ***	0.0765 **	0.0202 ***	0.0150 ***	0.0807 **
	(4.5596)	(3.8620)	(2.0405)	(4.4241)	(3.7324)	(1.9759)	(4.6549)	(3.7581)	(2.1046)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9352	0.8090	0.7521	0.9353	0.8063	0.7546	0.9339	0.8081	0.7566
Adjusted R-squared	0.9239	0.7755	0.7087	0.9239	0.7724	0.7116	0.9222	0.7740	0.7134
F-statistic	82.3727	24.1529	17.3067	82.4485	23.7482	17.5436	79.6794	23.7298	17.5172
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel A.5. RPTLENDING, RPTLIABILITIES and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 18			Model 19			Model 20		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1991 ***	0.3164 **	-6.9958 ***	0.1722 ***	0.3138 **	-8.4830 ***	0.1862 ***	0.2936 **	-8.0556 ***
	(2.9176)	(2.1845)	(-6.4187)	(2.5874)	(2.1709)	(-7.5775)	(2.6447)	(2.0201)	(-7.0888)
RPTLENDING	-0.0047	0.0897	-0.8617 *				-0.0108	0.0840	-0.8895 *
	(-0.1061)	(0.9255)	(-1.8852)				(-0.2372)	(0.8689)	(-1.8938)
RPTLIABILITIES				0.0115	0.0777 **	0.4664	0.0105	0.0763 **	0.4519
				(0.4518)	(2.1320)	(1.2351)	(0.4001)	(2.0804)	(1.2050)
BOCSIZE	-0.0112	-0.0282 *	0.1947 **	-0.0124	-0.0253 *	0.2293 ***	-0.0107	-0.0259 *	0.2235 ***
	(-1.4401)	(-1.9440)	(2.5676)	(-1.5984)	(-1.7600)	(2.7943)	(-1.3620)	(-1.7861)	(2.6862)
FSIZE	-0.0007	-0.0057	0.2966 ***	0.0004	-0.0053	0.3487 ***	-0.0001	-0.0047	0.3352 ***
	(-0.2845)	(-1.1414)	(7.8870)	(0.1820)	(-1.0674)	(8.9527)	(-0.0507)	(-0.9383)	(8.4929)
LEVERAGE	-0.0965 ***	-0.0450 ***	0.3907 ***	-0.1017 ***	-0.0715 ***	0.1687	-0.1040 ***	-0.0700 ***	0.1636
	(-7.8062)	(-3.0877)	(3.4704)	(-7.6187)	(-4.9701)	(1.2591)	(-7.5614)	(-4.8305)	(1.2272)
GROWTH	0.0211 ***	0.0153 ***	0.0973 **	0.0194 ***	0.0155 ***	0.0963 **	0.0216 ***	0.0156 ***	0.0968 **
	(4.7350)	(3.8197)	(2.5507)	(4.4431)	(3.7507)	(2.4571)	(4.7856)	(3.7650)	(2.4810)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9242	0.8068	0.7865	0.9243	0.8061	0.7592	0.9229	0.8077	0.7634
Adjusted R-squared	0.9109	0.7730	0.7491	0.9111	0.7721	0.7170	0.9092	0.7736	0.7214
F-statistic	69.5260	23.8262	21.0170	69.6672	23.7140	17.9822	67.4464	23.6701	18.1852
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel A.6. RPTLENDING, RPTLIABILITIES and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 21			Model 22			Model 23		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1807 **	0.2961 **	-6.9645 ***	0.1391 *	0.3091 **	-7.8901 **	0.1640 **	0.2873 *	-7.3325 ***
	(2.4349)	(2.0281)	(-6.2785)	(1.9413)	(2.1140)	(-6.9433)	(2.1849)	(1.9547)	(-6.3845)
RPTLENDING	-0.0232	0.1065	-0.8868 **				-0.0310	0.1014	-0.8720 *
	(-0.5255)	(1.0942)	(-2.0564)				(-0.6891)	(1.0503)	(-1.9117)
RPTLIABILITIES				0.0116	0.0826 **	0.1877	0.0148	0.0812 **	0.2134
				(0.4606)	(2.2852)	(0.5251)	(0.5703)	(2.2336)	(0.6011)
BOARDSIZE	0.0273 ***	-0.0234	0.5687 ***	0.0258 ***	-0.0195	0.5556 ***	0.0268 ***	-0.0222	0.5501 ***
	(2.6556)	(-1.2458)	(4.5682)	(2.6037)	(-1.0342)	(4.4320)	(2.5991)	(-1.1689)	(4.3093)
FSIZE	-0.0027	-0.0046	0.2605 ***	-0.0011	-0.0049	0.2955 ***	-0.0020	-0.0041	0.2772 ***
	(-1.0979)	(-0.9002)	(6.9738)	(-0.4729)	(-0.9566)	(7.5755)	(-0.7852)	(-0.7902)	(7.0645)
LEVERAGE	-0.1001 ***	-0.0452 ***	0.3943 ***	-0.1032 ***	-0.0742 ***	0.2291 *	-0.1085 ***	-0.0724 ***	0.2355 *
	(-7.9831)	(-3.0212)	(3.3314)	(-7.6605)	(-4.9961)	(1.6499)	(-7.8442)	(-4.8311)	(1.7151)
GROWTH	0.0216 ***	0.0155 ***	0.0780 **	0.0202 ***	0.0155 ***	0.0813 **	0.0221 ***	0.0157 ***	0.0836 **
	(4.9279)	(3.7208)	(2.0011)	(4.6908)	(3.5910)	(2.0330)	(5.0101)	(3.6111)	(2.1099)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9283	0.8036	0.7669	0.9293	0.8019	0.7498	0.9272	0.8036	0.7551
Adjusted R-squared	0.9158	0.7692	0.7261	0.9169	0.7672	0.7060	0.9143	0.7687	0.7117
F-statistic	73.9026	23.3444	18.7691	74.9538	23.0915	17.0983	71.8351	23.0611	17.3824
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel B.1. RPTSALES, RPTPURCHASES and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 24			Model 25			Model 26		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1889 ***	0.2625 *	-6.1408 ***	0.2344 ***	0.2698 *	-6.2667 ***	0.1888 ***	0.2693 *	-6.1264 ***
	(2.9915)	(1.8311)	(-5.1541)	(3.9240)	(1.8938)	(-5.2727)	(3.0115)	(1.8780)	(-5.1299)
RPTSALES	0.0387 **	-0.0027	-0.0767				0.0371 **	-0.0015	-0.0810
	(2.1177)	(-0.1280)	(-0.4144)				(2.0489)	(-0.0700)	(-0.4311)
RPTPURCHASES				0.0203 **	-0.0263	0.0328	0.0196 **	-0.0261	0.0196
				(2.4079)	(-1.2840)	(0.2040)	(2.3892)	(-1.2768)	(0.1208)
INDBOC	0.1160 ***	0.0555 *	0.6658 **	0.1197 ***	0.0560 *	0.6500 **	0.1189 ***	0.0555 *	0.6575 **
	(6.2505)	(1.7383)	(2.5188)	(6.9730)	(1.7711)	(2.4731)	(6.5410)	(1.7403)	(2.4861)
FSIZE	-0.0028	-0.0060	0.2667 ***	-0.0044 **	-0.0061	0.2710 ***	-0.0030	-0.0061	0.2662 ***
	(-1.3021)	(-1.2094)	(6.4735)	(-2.1663)	(-1.2454)	(6.5988)	(-1.3843)	(-1.2326)	(6.4484)
LEVERAGE	-0.0882 ***	-0.0463 ***	0.4019 ***	-0.0897 ***	-0.0476 ***	0.4013 ***	-0.0861 ***	-0.0475 ***	0.4068 ***
	(-7.7445)	(-3.0278)	(3.1614)	(-7.8338)	(-3.1164)	(3.1718)	(-7.5862)	(-3.1055)	(3.2069)
GROWTH	0.0196 ***	0.0145 ***	0.1158 ***	0.0192 ***	0.0146 ***	0.1140 ***	0.0195 ***	0.0146 ***	0.1160 ***
	(4.7959)	(3.7664)	(3.0970)	(4.7057)	(3.7840)	(3.0400)	(4.7998)	(3.7731)	(3.1050)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9337	0.8096	0.7200	0.9286	0.8102	0.7180	0.9333	0.8095	0.7199
Adjusted R-squared	0.9221	0.7763	0.6709	0.9161	0.7770	0.6686	0.9215	0.7757	0.6702
F-statistic	80.3931	24.2593	14.6666	74.2307	24.3535	14.5260	78.8890	23.9505	14.4867
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel B.2. RPTLENDING, RPTLIABILITIES and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 27			Model 28			Model 29		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2525 ***	0.2358	-5.8517 ***	0.2101 ***	0.2787 *	-6.9354 ***	0.2306 ***	0.2599 *	-6.5706 ***
	(3.9218)	(1.6379)	(-4.9275)	(3.2967)	(1.9632)	(-5.6769)	(3.4348)	(1.8160)	(-5.3598)
RPTLENDING	-0.0274	0.0704	-1.0929 **				-0.0313	0.0651	-1.0451 **
	(-0.5974)	(0.7359)	(-2.3499)				(-0.6730)	(0.6854)	(-2.1454)
RPTLIABILITIES				0.0041	0.0735 **	0.1937	0.0054	0.0724 **	0.2007
				(0.1799)	(2.2007)	(0.5100)	(0.2344)	(2.1527)	(0.5351)
INDBOC	0.1177 ***	0.0531 *	0.6972 ***	0.1092 ***	0.0519 *	0.6120 **	0.1111 ***	0.0491	0.6580 **
	(6.7622)	(1.6612)	(2.6459)	(5.8269)	(1.6739)	(2.2517)	(5.9734)	(1.5705)	(2.4022)
FSIZE	-0.0048 **	-0.0051	0.2571 ***	-0.0032	-0.0062	0.2975 ***	-0.0039 *	-0.0056	0.2853 ***
	(-2.1982)	(-1.0306)	(6.2702)	(-1.4588)	(-1.2612)	(7.0218)	(-1.6767)	(-1.1302)	(6.7116)
LEVERAGE	-0.0941 ***	-0.0457 ***	0.4004 ***	-0.0972 ***	-0.0715 ***	0.2377 *	-0.1006 ***	-0.0704 ***	0.2354 *
	(-7.9841)	(-2.9725)	(3.1839)	(-7.6460)	(-4.7106)	(1.6671)	(-7.6707)	(-4.6182)	(1.6544)
GROWTH	0.0203 ***	0.0146 ***	0.1190 ***	0.0196 ***	0.0145 ***	0.1157 ***	0.0208 ***	0.0145 ***	0.1195 ***
	(4.8340)	(3.7552)	(3.2312)	(4.6364)	(3.7181)	(3.0028)	(4.7941)	(3.7254)	(3.1566)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9266	0.8122	0.7217	0.9277	0.8110	0.7218	0.9252	0.8124	0.7250
Adjusted R-squared	0.9138	0.7793	0.6729	0.9150	0.7779	0.6731	0.9119	0.7791	0.6762
F-statistic	72.0544	24.6677	14.7890	73.1618	24.4783	14.8027	69.7045	24.4090	14.8570
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel C.1. RPTSALES, RPTPURCHASES and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 30			Model 31			Model 32		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1732 **	0.3307 ***	-5.8304 ***	0.2478 ***	0.3372 ***	-5.9287 ***	0.1698 **	0.3348 ***	-5.8618 ***
	(2.5351)	(2.6464)	(-5.3115)	(4.1882)	(2.7127)	(-5.3903)	(2.4910)	(2.6792)	(-5.3330)
RPTSALES	0.0359 **	-0.0007	-0.2066				0.0348 *	0.0008	-0.2183
	(1.9900)	(-0.0291)	(-1.0319)				(1.9454)	(0.0316)	(-1.0804)
RPTPURCHASES				0.0150	-0.0206	0.0806	0.0146	-0.0206	0.0779
				(1.5029)	(-1.0193)	(0.4896)	(1.5008)	(-1.0178)	(0.4665)
BOCCOM	0.0382 ***	0.0424 ***	0.2158 *	0.0348 ***	0.0420 ***	0.2096 *	0.0378 ***	0.0418 ***	0.2261 *
	(4.5452)	(4.0149)	(1.7967)	(4.1598)	(3.9778)	(1.7664)	(4.5218)	(3.9466)	(1.8929)
FSIZE	-0.0009	-0.0080 *	0.2648 ***	-0.0034 *	-0.0081 *	0.2675 ***	-0.0009	-0.0081 *	0.2656 ***
	(-0.3831)	(-1.8456)	(6.8146)	(-1.6825)	(-1.8796)	(6.8821)	(-0.3726)	(-1.8555)	(6.8328)
LEVERAGE	-0.0996 ***	-0.0517 ***	0.2890 **	-0.0993 ***	-0.0528 ***	0.2797 **	-0.0974 ***	-0.0526 ***	0.2843 **
	(-8.2144)	(-3.7550)	(2.2598)	(-8.0597)	(-3.8302)	(2.1632)	(-8.0392)	(-3.8152)	(2.2078)
GROWTH	0.0230 ***	0.0150 ***	0.1147 ***	0.0233 ***	0.0151 ***	0.1140 ***	0.0228 ***	0.0151 ***	0.1151 ***
	(5.3263)	(3.6883)	(3.0183)	(5.3772)	(3.7028)	(2.9872)	(5.3181)	(3.6985)	(3.0247)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9337	0.8098	0.7768	0.9294	0.8104	0.7725	0.9331	0.8098	0.7753
Adjusted R-squared	0.9219	0.7761	0.7372	0.9168	0.7768	0.7322	0.9211	0.7756	0.7349
F-statistic	79.3203	23.9868	19.6081	74.1329	24.0805	19.1306	77.6397	23.6904	19.2022
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.2 contd.

Panel C.2. RPTLENDING, RPTLIABILITIES and BOCCOM to Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 33			Model 34			Model 35		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2912 ***	0.3063 **	-5.3980 ***	0.2241 ***	0.3249 ***	-6.9100 ***	0.2638 ***	0.3052 **	-6.4034 ***
	(4.9729)	(2.4257)	(-4.8575)	(3.5376)	(2.7739)	(-6.1943)	(4.1170)	(2.5574)	(-5.6754)
RPTLENDING	-0.0447	0.1019	-1.0072 **				-0.0478	0.0848	-1.1023 **
	(-1.0211)	(1.1357)	(-1.9765)				(-1.0733)	(0.9510)	(-2.1134)
RPTLIABILITIES				0.0095	0.0626 **	0.4741	0.0122	0.0594 *	0.5222
				(0.4210)	(1.9877)	(1.3384)	(0.5353)	(1.8743)	(1.4790)
BOCCOM	0.0355 ***	0.0447 ***	0.1963	0.0347 ***	0.0435 ***	0.2305 **	0.0357 ***	0.0450 ***	0.2257 *
	(3.9485)	(4.2664)	(1.6269)	(4.2722)	(4.2565)	(1.9720)	(4.1586)	(4.4055)	(1.9014)
FSIZE	-0.0047 **	-0.0073 *	0.2506 ***	-0.0024	-0.0076 *	0.3025 ***	-0.0037 *	-0.0070 *	0.2864 ***
	(-2.3834)	(-1.6711)	(6.3932)	(-1.0944)	(-1.8581)	(7.6174)	(-1.6750)	(-1.6978)	(7.1535)
LEVERAGE	-0.1044 ***	-0.0506 ***	0.2811 **	-0.1078 ***	-0.0722 ***	0.1940	-0.1119 ***	-0.0705 ***	0.1708
	(-8.2370)	(-3.6778)	(2.1671)	(-8.0985)	(-5.3467)	(1.5237)	(-8.1421)	-5.1899	(1.3089)
GROWTH	0.0248 ***	0.0151 ***	0.1177 ***	0.0235 ***	0.0152 ***	0.1065 ***	0.0251 ***	0.0153 ***	0.1113 ***
	(5.5854)	(3.6982)	(3.1066)	(5.4195)	(3.6650)	(2.8134)	(5.6664)	(3.6888)	(2.9584)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9288	0.8124	0.7705	0.9289	0.8115	0.8023	0.9277	0.8128	0.7947
Adjusted R-squared	0.9162	0.7790	0.7298	0.9163	0.7780	0.7671	0.9147	0.7791	0.7579
F-statistic	73.5171	24.3841	18.9134	73.6020	24.2430	22.8517	71.4229	24.1583	21.5500
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

Hence, Hypothesis 3b is accepted. Except for RPTs lending on Tobin's Q, there are significant positive relationships between RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), and RPTs liabilities (RPTLIABILITIES) and with different measurements of firm performance (ROA, CFO, or Tobin's Q) while controlling the characteristics of corporate governance. These results are consistent with the results in Chapter 5 when the regressions use only the RPTs based on the nature of transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

7.4.3 The Effects of RPTs Based on the Status of Related Party (RPTs Person and RPTs Entity) on Firm Performance while Controlling the Characteristics of Corporate Governance

RPTPERSON has significant positive effects on firm performance while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) as shown in Table 7.3 Panel A.1, Panel A.2 and Panel A.3, respectively. The effect of RPTPERSON on long-term firm performance measured with Tobin's Q while controlling size of the BOD (BODSIZE) are significant positive at the 1% level in Model 36 and Model 38 (Panel A.1 columns 4 and 10). Similar results are observed when size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) are controlled as seen in Model 39 and Model 41 (Panel A.2 columns 4 and 10) and Model 42 and Model 44 (Panel A.3 columns 4 and 10), respectively. The effects are insignificant when firm performance is measured with ROA and CFO.

RPTENTITY also has significant positive effects on short-term firm performance measured with ROA while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) as presented in Table 7.3 Panel A.1, Panel A.2 and Panel A.3. The effects of RPTENTITY on firm performance measured with ROA while controlling size of the BOD (BODSIZE) are significant positive at the 1% level in Model 37 and Model 38 (Panel A.1 columns 5 and 8). When size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) are controlled, the effects are similar at the 1% level in Model 40 and Model 41 (Panel A.2 columns 5 and 8) and Model 43 and Model 44 (Panel A.3 columns 5 and 8), respectively. The effects are insignificant when firm performance is measured with CFO and Tobin's Q.

RPTPERSON and RPTENTITY have significant positive effects on firm performance while controlling independence of the BOC (INDBOC) as shown in Table 7.3 Panel B. While controlling independence of the BOC (INDBOC), the effects of RPTPERSON on long-term firm performance measured with Tobin's Q are significant positive at the 1% level in Model 45 and Model 47 (Panel B columns 4 and 10). When firm performance measured with short-term performance (ROA and

CFO), the effects are insignificant. The effects of RPTENTITY on firm performance measured with short-term performance (ROA) while controlling independence of the BOC (INDBOC) are significant positive at the 1% level in Model 46 and Model 47 (Panel B columns 5 and 8). When firm performance is measured with CFO and Tobin's Q, the effects of RPTENTITY on firm performance while controlling independence of the BOC (INDBOC) are insignificant.

While controlling for the committees established in the BOC (BOCCOM), RPTs based on the status of related party (RPTPERSON and RPTENTITY) also has significant positive effects on firm performance as shown in Table 7.3 Panel C. RPTPERSON has significant positive effects at the 1% level on firm performance measured with long-term performance (Tobin's Q) while controlling committees established in the BOC (BOCCOM) in Model 48 and Model 50 (Panel C columns 4 and 10). The effects of RPTPERSON on firm performance measured with short-term performance (ROA and CFO) while controlling committees established in the BOC (BOCCOM) are insignificant. RPTENTITY also has significant positive effects at the 1% level on firm performance measured with short-term performance (ROA) while controlling committees established in the BOC (BOCCOM) as seen in Model 49 and Model 50 (Panel C columns 5 and 8). When CFO and Tobin's Q are used to measure firm performance, the effects of RPTENTITY on firm performance while controlling committees established in the BOC (BOCCOM) are insignificant.

Therefore, Hypothesis 3c is accepted since there is a significant positive effect of RPTs based on the status of related party (RPTPERSON and RPTENTITY) on firm performance measured with long-term performance (Tobin's Q) and short-term performance (ROA), respectively, while controlling the characteristics of corporate governance. The findings are consistent with the results in Chapter 5 when the regressions use only the RPTs based on the status of related party (RPTPERSON and RPTENTITY) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

Table 7.3 Regression Results of RPTs Based on the Status of Related Party (RPTs Person and RPTs Entity) and Characteristics of Corporate Governance on Firm Performance

Panel A.1. RPTPERSON, RPTENTITY and BODSIZE to Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 36			Model 37			Model 38		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1352 *	0.3170 **	-8.4409 ***	0.0995	0.3200 **	-7.2439 ***	0.1002	0.3181 **	-8.4685 ***
	(1.9037)	(2.2149)	(-7.5609)	(1.4582)	(2.2284)	(-6.4164)	(1.4660)	(2.2099)	(-7.5508)
RPTPERSON	-0.0134	-0.0116	2.7236 ***				-0.0106	-0.0118	2.7202 ***
	(-0.2985)	(-0.1976)	(3.1968)				(-0.2615)	(-0.1994)	(3.2394)
RPTENTITY				0.0208 ***	-0.0003	-0.0007	0.0208 ***	-0.0005	0.0284
				(3.4715)	(-0.0208)	(-0.0071)	(3.4537)	(-0.0351)	(0.3638)
BODSIZE	0.0470 ***	-0.0004	0.3477 ***	0.0451 ***	-0.0003	0.3497 ***	0.0449 ***	-0.0004	0.3280 ***
	(8.5842)	(-0.0316)	(3.9383)	(8.1923)	(-0.0239)	(3.6277)	(8.1316)	(-0.0277)	(3.6777)
FSIZE	-0.0017	-0.0071	0.3458 ***	-0.0006	-0.0071	0.2968 ***	-0.0006	-0.0071	0.3473 ***
	(-0.7021)	(-1.3957)	(8.7525)	(-0.2614)	(-1.4062)	(7.4560)	(-0.2670)	(-1.3962)	(8.7482)
LEVERAGE	-0.0951 ***	-0.0458 ***	-0.1609	-0.0933 ***	-0.0486 ***	0.2959 **	-0.0929 ***	-0.0458 ***	-0.1445
	(-7.6015)	(-3.0829)	(-1.0958)	(-7.9469)	(-3.3609)	(2.2138)	(-7.6568)	(-3.0764)	(-0.9806)
GROWTH	0.0185 ***	0.0145 ***	0.0814 **	0.0182 ***	0.0146 ***	0.0779 **	0.0183 ***	0.0145 ***	0.0820 **
	(4.3552)	(3.8509)	(2.0777)	(4.4675)	(3.8609)	(1.9944)	(4.4812)	(3.8452)	(2.0918)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9367	0.8075	0.7487	0.9381	0.8069	0.7515	0.9378	0.8074	0.7493
Adjusted R-squared	0.9256	0.7738	0.7046	0.9272	0.7731	0.7080	0.9268	0.7732	0.7049
F-statistic	84.4091	23.9335	16.9938	86.3803	23.8416	17.2520	85.0159	23.6277	16.8484
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.3 contd.

Panel A.2. RPTPERSON, RPTENTITY and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 39			Model 40			Model 41		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1908 ***	0.3424 **	-8.5014 ***	0.1476 **	0.3437 **	-7.2128 ***	0.1426 **	0.3436 **	-8.5077 ***
	(2.9640)	(2.3823)	(-7.7254)	(2.3513)	(2.3851)	(-6.5873)	(2.2274)	(2.3784)	(-7.7113)
RPTPERSON	-0.0223	-0.0121	3.0327 ***				-0.0201	-0.0123	3.0130 ***
	(-0.5430)	(-0.2159)	(3.6690)				(-0.5299)	(-0.2189)	(3.6824)
RPTENTITY				0.0217 ***	-0.0004	-0.0542	0.0218 ***	-0.0006	-0.0029
				(3.2510)	(-0.0265)	(-0.6144)	(3.1994)	(-0.0436)	(-0.0375)
BOCSIZE	-0.0130 *	-0.0275 *	0.2209 **	-0.0131 *	-0.0277 *	0.1851 **	-0.0137 *	-0.0275 *	0.2170 **
	(-1.6918)	(-1.9108)	(2.5545)	(-1.7482)	(-1.9166)	(2.4433)	(-1.7988)	(-1.9046)	(2.5065)
FSIZE	-0.0003	-0.0066	0.3565 ***	0.0009	-0.0065	0.3038 ***	0.0011	-0.0066	0.3568 ***
	(-0.1335)	(-1.3294)	(9.2418)	(0.4101)	(-1.3225)	(8.0478)	(0.4967)	(-1.3311)	(9.2328)
LEVERAGE	-0.0944 ***	-0.0424 ***	-0.2177	-0.0886 ***	-0.0458 ***	0.4138 ***	-0.0890 ***	-0.0424 ***	-0.2098
	(-7.5449)	(-2.8371)	(-1.5184)	(-7.5815)	(-3.1563)	(3.6284)	(-7.2384)	(-2.8293)	(-1.4613)
GROWTH	0.0195 ***	0.0151 ***	0.0981 **	0.0195 ***	0.0152 ***	0.1005 ***	0.0198 ***	0.0151 ***	0.0975 **
	(4.4723)	(3.8101)	(2.4728)	(4.6232)	(3.8202)	(2.6148)	(4.6621)	(3.8057)	(2.4561)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9249	0.8053	0.7453	0.9274	0.8048	0.7811	0.9265	0.8052	0.7453
Adjusted R-squared	0.9118	0.7712	0.7007	0.9146	0.7706	0.7428	0.9134	0.7706	0.7001
F-statistic	70.2937	23.5981	16.6924	72.8340	23.5242	20.3583	71.0046	23.2986	16.4938
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.3 contd.

Panel A.3. RPTPERSON, RPTENTITY and BOARSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 42			Model 43			Model 44		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1633 **	0.3253 **	-8.5349 ***	0.1189 *	0.3253 **	-7.4439 ***	0.1179 *	0.3254 **	-8.5683 ***
	(2.3217)	(2.2443)	(-7.6839)	(1.7386)	(2.2402)	(-6.6888)	(1.7139)	(2.2351)	(-7.6802)
RPTPERSON	-0.0231	-0.0086	2.8371 ***				-0.0216	-0.0086	2.8208 ***
	(-0.5214)	(-0.1507)	(3.4997)				(-0.5292)	(-0.1502)	(3.5293)
RPTENTITY				0.0213 ***	0.0002	-0.0213	0.0213 ***	0.0001	0.0168
				(3.3736)	(0.0178)	(-0.2286)	(3.3276)	(0.0071)	(0.2132)
BOARDSIZE	0.0261 ***	-0.0204	0.5298 ***	0.0268 ***	-0.0205	0.5617 ***	0.0258 ***	-0.0204	0.5172 ***
	(2.6259)	(-1.0971)	(4.6619)	(2.7867)	(-1.0940)	(4.5209)	(2.6772)	(-1.0892)	(4.5080)
FSIZE	-0.0021	-0.0058	0.3271 ***	-0.0009	-0.0057	0.2770 ***	-0.0008	-0.0058	0.3289 ***
	(-0.8962)	(-1.1283)	(8.4374)	(-0.4030)	(-1.1197)	(7.3319)	(-0.3539)	(-1.1224)	(8.4442)
LEVERAGE	-0.0950 ***	-0.0449 ***	-0.2064	-0.0910 ***	-0.0466 ***	0.3986 ***	-0.0905 ***	-0.0449 ***	-0.1953
	(-7.5413)	(-2.9340)	(-1.3901)	(-7.6536)	(-3.1296)	(3.2705)	(-7.3148)	(-2.9300)	(-1.3116)
GROWTH	0.0200 ***	0.0154 ***	0.0920 **	0.0196 ***	0.0154 ***	0.0807 **	0.0198 ***	0.0154 ***	0.0926 **
	(4.6597)	(3.7176)	(2.2771)	(4.7702)	(3.7161)	(2.0423)	(4.7953)	(3.7138)	(2.2877)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9302	0.8019	0.7398	0.9327	0.8016	0.7583	0.9321	0.8019	0.7402
Adjusted R-squared	0.9179	0.7672	0.6942	0.9209	0.7668	0.7159	0.9200	0.7667	0.6941
F-statistic	75.9920	23.0960	16.2165	79.0312	23.0494	17.8960	77.3644	22.8139	16.0566
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.3 contd.

Panel B. RPTPERSON, RPTENTITY and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficent t-Statistic	Model 45			Model 46			Model 47		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2369 ***	0.2599 *	-7.4442 ***	0.1975 ***	0.2623 *	-6.0382 ***	0.1973 ***	0.2610 *	-7.3770 ***
	(3.8721)	(1.8191)	(-6.3933)	(3.3090)	(1.8381)	(-5.0500)	(3.2314)	(1.8210)	(-6.2926)
RPTPERSON	-0.0329	-0.0124	2.9581 ***				-0.0272	-0.0123	2.9310 ***
	(-0.8051)	(-0.2007)	(3.8319)				(-0.7252)	(-0.1972)	(3.8297)
RPTENTITY				0.0241 ***	0.0014	-0.1215	0.0242 ***	0.0012	-0.0525
				(3.7297)	(0.1213)	(-1.2936)	(3.6808)	(0.1009)	(-0.6062)
INDBOC	0.1155 ***	0.0565 *	0.6785 **	0.1178 ***	0.0555 *	0.6763 **	0.1176 ***	0.0557 *	0.6830 **
	(6.5221)	(1.7801)	(2.4657)	(6.6416)	(1.7440)	(2.5788)	(6.5683)	(1.7465)	(2.4831)
FSIZE	-0.0043 **	-0.0060	0.3208 ***	-0.0033	-0.0060	0.2639 ***	-0.0033	-0.0060	0.3189 ***
	(-2.0613)	(-1.2091)	(7.8724)	(-1.6089)	(-1.2177)	(6.4029)	(-1.5633)	(-1.2138)	(7.7918)
LEVERAGE	-0.0911 ***	-0.0431 ***	-0.1675	-0.0881 ***	-0.0465 ***	0.4073 ***	-0.0881 ***	-0.0432 ***	-0.1621
	(-7.6178)	(-2.7288)	(-1.1137)	(-7.9042)	(-3.0387)	(3.2267)	(-7.4856)	(-2.7300)	(-1.0781)
GROWTH	0.0196 ***	0.0145 ***	0.1201 ***	0.0190 ***	0.0146 ***	0.1178 ***	0.0193 ***	0.0145 ***	0.1206 ***
	(4.7467)	(3.7344)	(3.0964)	(4.7580)	(3.7667)	(3.1660)	(4.7924)	(3.7214)	(3.1145)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9283	0.8108	0.7314	0.9317	0.8104	0.7196	0.9308	0.8106	0.7317
Adjusted R-squared	0.9157	0.7776	0.6844	0.9197	0.7772	0.6704	0.9185	0.7770	0.6841
F-statistic	73.8538	24.4424	15.5354	77.7625	24.3802	14.6385	75.7600	24.1272	15.3727
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.3 contd.

Panel C. RPTPERSON, RPTENTITY and BOCCOM to Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 48			Model 49			Model 50		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2509 ***	0.3323 ***	-8.0135 ***	0.1892 ***	0.3318 ***	-5.6442 ***	0.1843 ***	0.3320 ***	-7.9798 ***
	(4.1889)	(2.6500)	(-7.5175)	(2.9768)	(2.6584)	(-5.0889)	(2.8439)	(2.6355)	(-7.4354)
RPTPERSON	-0.0067	-0.0084	2.7573 ***				-0.0072	-0.0083	2.7443 ***
	(-0.1409)	(-0.1428)	(3.1704)				(-0.1694)	(-0.1391)	(3.1864)
RPTENTITY				0.0194 ***	0.0024	-0.1057	0.0196 ***	0.0022	-0.0188
				(2.9991)	(0.1936)	(-1.0532)	(2.9938)	(0.1771)	(-0.1985)
BOCCOM	0.0352 ***	0.0424 ***	0.2668 **	0.0328 ***	0.0423 ***	0.2016 *	0.0329 ***	0.0420 ***	0.2677 **
	(4.1653)	(4.0216)	(2.2629)	(4.2450)	(3.9898)	(1.6611)	(4.2520)	(3.9551)	(2.2551)
FSIZE	-0.0034 *	-0.0081 *	0.3430 ***	-0.0015	-0.0081 *	0.2587 ***	-0.0013	-0.0081 *	0.3419 ***
	(-1.6528)	(-1.8570)	(8.9426)	(-0.6898)	(-1.8596)	(6.6141)	(-0.5855)	(-1.8530)	(8.8822)
LEVERAGE	-0.1028 ***	-0.0491 ***	0.0582	-0.0977 ***	-0.0522 ***	0.3028 **	-0.0995 ***	-0.0492 ***	0.0604
	(-8.0601)	(-3.4627)	(0.5189)	(-8.1150)	(-3.7738)	(2.3784)	(-7.9022)	(-3.4572)	(0.5382)
GROWTH	0.0234 ***	0.0149 ***	0.0794 **	0.0221 ***	0.0150 ***	0.1162 ***	0.0221 ***	0.0149 ***	0.0796 **
	(5.3715)	(3.6607)	(2.1384)	(5.2449)	(3.6800)	(3.0589)	(5.2283)	(3.6460)	(2.1407)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9295	0.8109	0.8508	0.9314	0.8103	0.7756	0.9308	0.8106	0.8506
Adjusted R-squared	0.9170	0.7774	0.8244	0.9192	0.7766	0.7357	0.9184	0.7765	0.8238
F-statistic	74.2353	24.1590	32.1314	76.4952	24.0630	19.4635	74.9086	23.8168	31.6865
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

7.4.4 The Effects of RPTs Entity Based on the Nature of the Relationship (RPTs Shareholders, RPTs Associates and Joint Firms and RPTs Other Affiliates) on Firm Performance while Controlling the Characteristics of Corporate Governance

While controlling for the size of the BOD (BODSIZE), RPTs shareholders (RPTENTITY_SH) has insignificant effects on firm performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q) as presented in Table 7.4 Panel A.1 Model 51. While controlling size of the BOC (BOCSIZE), RPTENTITY_SH has significant positive effects at the 10% level on short-term firm performance measured with CFO as shown in Model 55 and Model 58 (Panel A.2 columns 3 and 12). However, the effects are significant negative at the 10% level in Model 55 (Panel A.2 column 2) and at the 1% level in Model 58 (Panel A.2 column 11) on firm performance measured with ROA. When long-term performance (Tobin's Q) is used as firm performance measurement, the effects of RPTENTITY_SH on firm performance while controlling size of the BOC (BOCSIZE) are insignificant. RPTENTITY_SH also has significant negative effects on firm performance measured with short-term performance (ROA) while controlling total size of the BOD and BOC (BOARDSIZE) at the 10% level in Model 59 (Panel A.3 column 2) and at the 5% level in Model 62 (Panel A.3 column 11). When firm performance is measured with CFO and Tobin's Q, the effects of RPTENTITY_SH on firm performance while controlling total size of the BOD and BOC (BOARDSIZE) are insignificant.

While controlling for the size of the BOD (BODSIZE), RPTs associates and joint firms (RPTENTITY_ASSC) has significant positive effects at the 5% level on firm performance measured with short-term performance (ROA) as shown by Model 52 and Model 54 (Panel A.1 columns 5 and 11). The effects are stronger (at the 1% level) when size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) are controlled as shown in Model 56 and Model 58 (Panel A.2 columns 5 and 11) and Model 60 and Model 62 (Panel A.3 columns 5 and 11), respectively. When CFO and long-term performance (Tobin's Q) are used to measure firm performance, the effects of RPTENTITY_ASSC on firm performance while controlling size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) are insignificant.

While controlling for the size of the BOD (BODSIZE), size of the BOC (BOCSIZE), and total size of the BOD and BOC (BOARDSIZE), RPTs other affiliates (RPTENTITY_OAFF) also have significant positive effects on firm performance measured with short-term performance (ROA) as presented in Table 7.4 Panel A.1, Panel A.2 and Panel A.3. The significance is at the 1% level in Model 53 and Model 54 (Panel A.1 columns 8 and 11), Model 57 and Model 58 (Panel A.2 columns 8 and 11), and Model 61 and Model 62 (Panel A.3 columns 5 and 11), respectively. The effects are insignificant when CFO and long-term (Tobin's Q) are used to measure firm performance.

While controlling for the independence of the BOC (INDBOC), RPTENTITY_SH has significant negative impacts on firm performance measured with short-term performance (ROA) as presented in Table 7.4 Panel B. The significance is at the 5% level in Model 63 (Panel B column 2) and at the 1% level in Model 66 (Panel B column 11). RPTENTITY_SH has insignificant effects on firm performance measured with CFO and long-term performance (Tobin's Q) while controlling the independence of BOC (INDBOC).

While controlling for the independence of the BOC (INDBOC), RPTENTITY_ASSC and RPTENTITY_OAFF have significant positive effects at the 1% level on firm performance measured with short-term performance (ROA) as shown by Model 64 and Model 66 (Panel B columns 5 and 11) and Model 65 and Model 66 (Panel B columns 6 and 12), respectively. RPTENTITY_ASSC and RPTENTITY_OAFF have insignificant effects on firm performance measured with CFO and long-term performance (Tobin's Q) while controlling independence of the BOC (INDBOC).

While controlling for the committees established in the BOC (BOCCOM), RPTENTITY_SH has significant negative effects on firm performance measured with short-term performance (ROA) as presented in Table 7.4 Panel C. The significance is at the 5% level in Model 67 (Panel C column 2) and at the 1% level in Model 70 (Panel C column 11). However, the effects of RPTENTITY_SH on firm performance measured with CFO and long-term performance (Tobin's Q) while controlling committees established in the BOC (BOCCOM) are insignificant.

While controlling for the committees established in the BOC (BOCCOM), RPTENTITY_ASSC and RPTENTITY_OAFF have significant positive effects on firm performance measured with short-term performance (ROA) as presented in Table 7.4 Panel C. The significance is at the 1% level in Model 68 and Model 70 (Panel C columns 5 and 11) and Model 69 and Model 70 (Panel C columns 8 and 11), respectively. When firm performance is measured with CFO and long-term performance (Tobin's Q), the effects are insignificant.

Therefore, Hypothesis 3d is accepted. Except for RPTENTITY_SH on ROA, there is a significant positive effect of sub-categories of RPTs entity based on the nature of the relationship (RPTENTITY_ASSC and RPTENTITY_OAFF) on firm performance, especially with short-term performance (ROA), while controlling the characteristics of corporate governance. These findings are consistent with the results in Chapter 5 when the regressions use only RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

Table 7.4 Regression Results of RPTs Entity Based on the Nature of the Relationship (RPTs Shareholders, RPTs Associates and Joint Firms and RPTs Other Affiliates) and Characteristics of Corporate Governance on Firm Performance

Panel A.1. RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 51			Model 52			Model 53			Model 54		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1465 **	0.2859 **	-7.0006 ***	0.1008	0.3167 **	-7.3128 ***	0.1126	0.3245 **	-7.1487 ***	0.0926	0.2897 **	-6.8239 ***
	(2.0226)	(2.0247)	(-6.1683)	(1.4406)	(2.2120)	(-6.5760)	(1.6000)	(2.2625)	(-6.3160)	(1.2914)	(2.0400)	(-5.9317)
RPTENTITY_SH	-0.0226	0.0794	-0.3314							-0.0227	0.0777	-0.3122
	(-1.2709)	(1.6187)	(-1.0668)							(-1.4577)	(1.5790)	(-1.0556)
RPTENTITY_ASSC				0.1179 **	0.0109	0.4370				0.1177 **	-0.0001	0.3450
				(2.4722)	(0.1368)	(1.3221)				(2.4940)	(-0.0013)	(0.9294)
RPTENTITY_OAFF							0.0210 ***	-0.0056	0.0255	0.0187 ***	-0.0040	0.0080
							(3.3807)	(-0.4154)	(0.2396)	(2.9864)	(-0.3002)	(0.0752)
BODSIZE	0.0463 ***	-0.0016	0.3621 ***	0.0396 ***	-0.0005	0.3334 ***	0.0457 ***	0.0001	0.3489 ***	0.0391 ***	-0.0013	0.3160 ***
	(8.3938)	(-0.1262)	(3.7647)	(6.5411)	(-0.0388)	(3.4371)	(8.3396)	(0.0087)	(3.6208)	(6.5778)	(-0.1005)	(3.1856)
FSIZE	-0.0020	-0.0061	0.2882 ***	-0.0001	-0.0070	0.3000 ***	-0.0011	-0.0073	0.2932 ***	0.0000	-0.0062	0.2837 ***
	(-0.8127)	(-1.2142)	(7.2318)	(-0.0601)	(-1.3879)	(7.6616)	(-0.4407)	(-1.4349)	(7.3421)	(-0.0174)	(-1.2311)	(7.0157)
LEVERAGE	-0.0951 ***	-0.0481 ***	0.3068 **	-0.0986 ***	-0.0486 ***	0.2765 **	-0.0913 ***	-0.0487 ***	0.3025 **	-0.0912 ***	-0.0482 ***	0.3324 **
	(-7.7279)	(-3.3522)	(2.2829)	(-8.0418)	(-3.3511)	(2.0712)	(-7.6277)	(-3.3676)	(2.2628)	(-7.4646)	(-3.3484)	(2.4607)
GROWTH	0.0185 ***	0.0147 ***	0.0764 *	0.0166 ***	0.0146 ***	0.0711 *	0.0179 ***	0.0146 ***	0.0799 **	0.0165 ***	0.0147 ***	0.0774 **
	(4.3561)	(3.9204)	(1.9635)	(3.8938)	(3.8534)	(1.8319)	(4.3371)	(3.8552)	(2.0335)	(3.9433)	(3.9047)	(1.9754)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9358	0.8119	0.7540	0.9353	0.8070	0.7527	0.9365	0.8067	0.7519	0.9350	0.8115	0.7556
Adjusted R-squared	0.9246	0.7789	0.7109	0.9240	0.7732	0.7093	0.9254	0.7729	0.7084	0.9233	0.7777	0.7117
F-statistic	83.1710	24.6202	17.4859	82.5145	23.8499	17.3578	84.1292	23.8098	17.2873	80.0626	23.9868	17.2217
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.4 contd.

Panel A.2. RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 55			Model 56			Model 57			Model 58		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2036 ***	0.3043 **	-7.2382 ***	0.1642 ***	0.3426 **	-7.5093 ***	0.1547 **	0.3473 **	-7.1789 ***	0.1384 **	0.3088 **	-6.9750 ***
	(3.1217)	(2.1456)	(-6.6126)	(2.5899)	(2.3850)	(-6.9498)	(2.4066)	(2.4133)	(-6.5187)	(2.0979)	(2.1685)	(-6.2102)
RPTENTITY_SH	-0.0380 *	0.0835 *	-0.4013							-0.0402 ***	0.0825 *	-0.4291
	(-1.9049)	(1.7314)	(-1.2570)							(-2.6025)	(1.7057)	(-1.3589)
RPTENTITY_ASSC				0.1690 ***	0.0065	0.2224				0.1749 ***	-0.0059	0.1118
				(3.8967)	(0.0832)	(0.5916)				(4.1705)	(-0.0746)	(0.2832)
RPTENTITY_OAFF							0.0206 ***	-0.0057	0.0052	0.0190 ***	-0.0042	0.0107
							(3.0435)	(-0.4158)	(0.0508)	(2.8494)	(-0.3073)	(0.1054)
BOCSIZE	-0.0127 *	-0.0287 **	0.2031 ***	-0.0150 *	-0.0276 *	0.1975 ***	-0.0125 *	-0.0276 *	0.1763 **	-0.0141 *	-0.0287 **	0.1830 **
	(-1.6523)	(-2.0048)	(2.7084)	(-1.9617)	(-1.9220)	(2.6366)	(-1.6572)	(-1.9118)	(2.3146)	(-1.8669)	(-1.9931)	(2.4030)
FSIZE	-0.0007	-0.0053	0.3041 ***	0.0006	-0.0065	0.3131 ***	0.0007	-0.0066	0.3024 ***	0.0013	-0.0054	0.2955 ***
	(-0.3179)	(-1.0856)	(8.0553)	(0.2863)	(-1.3198)	(8.3882)	(0.3086)	(-1.3420)	(7.9595)	(0.5766)	(-1.1065)	(7.6440)
LEVERAGE	-0.0928 ***	-0.0456 ***	0.4113 ***	-0.0984 ***	-0.0458 ***	0.3888 ***	-0.0887 ***	-0.0459 ***	0.4217 ***	-0.0920 ***	-0.0457 ***	0.4285 ***
	(-7.6350)	(-3.1670)	(3.6004)	(-8.2460)	(-3.1559)	(3.4070)	(-7.4770)	(-3.1633)	(3.6858)	(-7.7837)	(-3.1628)	(3.7188)
GROWTH	0.0192 ***	0.0153 ***	0.0975 **	0.0181 ***	0.0152 ***	0.0960 **	0.0192 ***	0.0152 ***	0.1025 ***	0.0180 ***	0.0153 ***	0.1028 ***
	(4.4277)	(3.8315)	(2.5411)	(4.2408)	(3.8195)	(2.4829)	(4.5075)	(3.8215)	(2.6526)	(4.3100)	(3.8256)	(2.6414)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9250	0.8100	0.7866	0.9264	0.8049	0.7826	0.9259	0.8047	0.7816	0.9261	0.8097	0.7850
Adjusted R-squared	0.9119	0.7767	0.7492	0.9135	0.7707	0.7445	0.9129	0.7704	0.7433	0.9129	0.7755	0.7464
F-statistic	70.3698	24.3140	21.0224	71.8073	23.5358	20.5304	71.2248	23.4955	20.4130	69.8372	23.6985	20.3350
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.4 contd.

Panel A.3. RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 59			Model 60			Model 61			Model 62		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1740 **	0.2894 **	-7.2137 ***	0.1319 *	0.3222 **	-7.4868 ***	0.1286 *	0.3284 **	-7.3889 ***	0.1119	0.2908 **	-7.0323 ***
	(2.4194)	(2.0270)	(-6.4497)	(1.9040)	(2.2235)	(-6.8057)	(1.8312)	(2.2640)	(-6.6135)	(1.5679)	(2.0269)	(-6.1844)
RPTENTITY_SH	-0.0324 *	0.0812	-0.3852							-0.0344 **	0.0794	-0.3683
	(-1.7946)	(1.6417)	(-1.2118)							(-2.2811)	(1.6012)	(-1.2118)
RPTENTITY_ASSC				0.1500 ***	0.0083	0.3883				0.1542 ***	-0.0021	0.2898
				(3.2901)	(0.1063)	(1.1119)				(3.4777)	(-0.0259)	(0.7574)
RPTENTITY_OAFF							0.0209 ***	-0.0052	0.0228	0.0187 ***	-0.0037	0.0120
							(3.2243)	(-0.3796)	(0.2147)	(2.8835)	(-0.2672)	(0.1130)
BOARDSIZE	0.0259 ***	-0.0229	0.5674 ***	0.0170 *	-0.0206	0.5564 ***	0.0278 ***	-0.0201	0.5520 ***	0.0175 *	-0.0227	0.5370 ***
	(2.6066)	(-1.2309)	(4.6146)	(1.7242)	(-1.1078)	(4.5051)	(2.8765)	(-1.0720)	(4.4405)	(1.8022)	(-1.2089)	(4.2910)
FSIZE	-0.0024	-0.0045	0.2691 ***	-0.0004	-0.0056	0.2787 ***	-0.0013	-0.0058	0.2753 ***	0.0001	-0.0045	0.2644 ***
	(-1.0017)	(-0.8863)	(7.1158)	(-0.1640)	(-1.1023)	(7.4845)	(-0.5413)	(-1.1415)	(7.2612)	(0.0339)	(-0.8884)	(6.8704)
LEVERAGE	-0.0948 ***	-0.0461 ***	0.4021 ***	-0.0992 ***	-0.0465 ***	0.3774 ***	-0.0903 ***	-0.0467 ***	0.4027 ***	-0.0921 ***	-0.0462 ***	0.4184 ***
	(-7.6966)	(-3.1148)	(3.2917)	(-8.1412)	(-3.1184)	(3.1104)	(-7.4818)	(-3.1390)	(3.2951)	(-7.6300)	(-3.1090)	(3.3968)
GROWTH	0.0198 ***	0.0155 ***	0.0789 **	0.0182 ***	0.0154 ***	0.0735 *	0.0194 ***	0.0154 ***	0.0831 **	0.0181 ***	0.0155 ***	0.0826 **
	(4.6310)	(3.7486)	(2.0014)	(4.2981)	(3.7064)	(1.8658)	(4.6501)	(3.7130)	(2.0927)	(4.3435)	(3.7337)	(2.0756)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9295	0.8065	0.7616	0.9305	0.8016	0.7602	0.9309	0.8014	0.7581	0.9302	0.8061	0.7606
Adjusted R-squared	0.9171	0.7725	0.7198	0.9183	0.7669	0.7182	0.9188	0.7665	0.7157	0.9176	0.7713	0.7177
F-statistic	75.2133	23.7693	18.2194	76.3528	23.0520	18.0875	76.8744	23.0119	17.8796	74.2048	23.1579	17.7004
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.4 contd.

Panel B. RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 63			Model 64			Model 65			Model 66		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2480 ***	0.2354 *	-5.8642 ***	0.1747 ***	0.2624 *	-6.2450 ***	0.2096 ***	0.2696 *	-6.1403 ***	0.1556 **	0.2423 *	-5.7016 ***
	(3.9607)	(1.6712)	(-4.8676)	(2.8250)	(1.8405)	(-5.2152)	(3.4347)	(1.8863)	(-5.1363)	(2.3768)	(1.7129)	(-4.6580)
RPTENTITY_SH	-0.0398 **	0.0754	-0.4587							-0.0406 ***	0.0754	-0.4933
	(-2.0513)	(1.5378)	(-1.5397)							(-2.6854)	(1.5328)	(-1.6348)
RPTENTITY_ASSC				0.1522 ***	-0.0001	0.0870				0.1600 ***	-0.0117	0.0452
				(3.6036)	(-0.0010)	(0.2392)				(3.9027)	(-0.1451)	(0.1183)
RPTENTITY_OAFF							0.0234 ***	-0.0026	-0.0187	0.0226 ***	-0.0013	-0.0137
							(3.3436)	(-0.2082)	(-0.1726)	(3.3357)	(-0.1034)	(-0.1245)
INDBOC	0.1166 ***	0.0518	0.6471 **	0.0933 ***	0.0561 *	0.6551 **	0.1179 ***	0.0544 *	0.6796 ***	0.0961 ***	0.0506	0.6682 **
	(6.6163)	(1.6403)	(2.4720)	(4.7452)	(1.7710)	(2.4925)	(6.6755)	(1.7069)	(2.5928)	(4.8850)	(1.5876)	(2.5582)
FSIZE	-0.0046 **	-0.0052	0.2579 ***	-0.0020	-0.0060	0.2704 ***	-0.0036 *	-0.0062	0.2663 ***	-0.0015	-0.0054	0.2520 ***
	(-2.1698)	(-1.0632)	(6.1980)	(-0.9235)	(-1.2180)	(6.5322)	(-1.7356)	(-1.2566)	(6.4467)	(-0.6603)	(-1.0998)	(5.9658)
LEVERAGE	-0.0907 ***	-0.0461 ***	0.4114 ***	-0.0916 ***	-0.0464 ***	0.3897 ***	-0.0876 ***	-0.0467 ***	0.4066 ***	-0.0875 ***	-0.0463 ***	0.4135 ***
	(-7.8182)	(-3.0448)	(3.2379)	(-8.0361)	(-3.0306)	(3.0616)	(-7.7623)	(-3.0518)	(3.2128)	(-7.7680)	(-3.0490)	(3.2496)
GROWTH	0.0193 ***	0.0146 ***	0.1154 ***	0.0179 ***	0.0146 ***	0.1139 ***	0.0189 ***	0.0146 ***	0.1165 ***	0.0175 ***	0.0146 ***	0.1178 ***
	(4.6853)	(3.8120)	(3.0649)	(4.3689)	(3.7739)	(2.9933)	(4.7085)	(3.7673)	(3.1108)	(4.3718)	(3.7997)	(3.0968)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9276	0.8147	0.7220	0.9302	0.8105	0.7163	0.9296	0.8102	0.7192	0.9293	0.8144	0.7212
Adjusted R-squared	0.9149	0.7822	0.6733	0.9180	0.7772	0.6666	0.9173	0.7769	0.6700	0.9167	0.7811	0.6711
F-statistic	73.1030	25.0762	14.8157	76.0683	24.3907	14.4042	75.3134	24.3430	14.6105	73.2646	24.4376	14.4076
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.4 contd.

Panel C. RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 67			Model 68			Model 69			Model 70		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2717 ***	0.3159 **	-5.5847 ***	0.2178 ***	0.3315 ***	-5.9286 ***	0.2040 ***	0.3353 ***	-5.7037 ***	0.1887 ***	0.3180 ***	-5.4502 ***
	(4.5700)	(2.5340)	(-4.9831)	(3.6695)	(2.6641)	(-5.3602)	(3.2259)	(2.6874)	(-5.1767)	(2.9850)	(2.5392)	(-4.8066)
RPTENTITY_SH	-0.0517 **	0.0672	-0.3019							-0.0444 ***	0.0666	-0.3277
	(-2.4919)	(1.3889)	(-0.9467)							(-3.0208)	(1.3692)	(-1.0156)
RPTENTITY_ASSC				0.1714 ***	0.0138	0.2449				0.1832 ***	0.0025	0.1628
				(3.8638)	(0.1768)	(0.6507)				(4.3113)	(0.0318)	(0.4026)
RPTENTITY_OAFF							0.0196 ***	-0.0018	-0.0492	0.0177 ***	-0.0006	-0.0209
							(3.0573)	(-0.1427)	(-0.4335)	(2.8757)	(-0.0491)	(-0.1768)
BOCCOM	0.0347 ***	0.0428 ***	0.2121 *	0.0362 ***	0.0426 ***	0.2019 *	0.0325 ***	0.0424 ***	0.2202 *	0.0334 ***	0.0425 ***	0.2266 *
	(4.1116)	(4.1100)	(1.7794)	(4.3624)	(4.0432)	(1.6876)	(4.2040)	(3.9867)	(1.8017)	(4.3165)	(.0436)	(1.8619)
FSIZE	-0.0041 **	-0.0076 *	0.2562 ***	-0.0024	-0.0081 *	0.2678 ***	-0.0020	-0.0082 *	0.2597 ***	-0.0015	-0.0077 *	0.2512 ***
	(-2.0034)	(-1.7571)	(6.4821)	(-1.1739)	(-1.8593)	(6.8464)	(-0.8978)	(-1.8785)	(6.6632)	(-0.6791)	(-1.7653)	(6.2913)
LEVERAGE	-0.0986 ***	-0.0533 ***	0.2965 **	-0.1052 ***	-0.0521 ***	0.2732 **	-0.0979 ***	-0.0521 ***	0.3065 **	-0.0998 ***	-0.0535 ***	0.3032 **
	(-7.9631)	(-3.8800)	(2.2949)	(-8.6067)	(-3.7692)	(2.1182)	(-8.0614)	(-3.7761)	(2.4080)	(-8.3268)	(-3.8770)	(2.3533)
GROWTH	0.0233 ***	0.0151 ***	0.1138 ***	0.0220 ***	0.0151 ***	0.1130 ***	0.0221 ***	0.0150 ***	0.1158 ***	0.0209 ***	0.0151 ***	0.1141 ***
	(5.3842)	(3.6906)	(2.9758)	(5.1380)	(3.6862)	(2.9332)	(5.2222)	(3.6778)	(3.0321)	(5.0169)	(3.6726)	(2.9505)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9302	0.8139	0.7781	0.9311	0.8106	0.7734	0.9306	0.8103	0.7766	0.9318	0.8135	0.7795
Adjusted R-squared	0.9178	0.7808	0.7387	0.9188	0.7770	0.7332	0.9183	0.7766	0.7370	0.9194	0.7796	0.7395
F-statistic	75.0833	24.6296	19.7508	76.0800	24.1140	19.2286	75.5583	24.0556	19.5833	75.1448	23.9898	19.4475
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

7.4.5 The Effects of Characteristics of Corporate Governance on Firm Performance while Controlling RPTs

While controlling for the total size of RPTs (RPTTOTAL), size of the BOD (BODSIZE) has significant positive effects at the 1% level on firm performance measured with short-term performance (ROA) and long-term performance (Tobin's Q) as shown by Model 1 (Table 7.1 Panel A.1 columns 2 and 4). The effects are insignificant when CFO is used to measure firm performance. Similar results are observed while controlling RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) as seen in Model 6, Model 7 and Model 8 (Table 7.2 Panel A.1 columns 2, 4, 5, 7, 8 and 10) and Model 15, Model 16 and Model 17 (Table 7.2 Panel A.4 columns 2, 4, 5, 7, 8 and 10), RPTs based on the status of related party (RPTPERSON and RPTENTITY) in Model 36, Model 37 and Model 38 (Table 7.3 Panel A.1 columns 2, 4, 5, 7, 8 and 10), and RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) as seen in Model 51, Model 52, Model 53 and Model 54 (Table 7.4 Panel A.1 columns 2, 4, 5, 7, 8, 10, 11 and 13).

While controlling for the total size of RPTs (RPTTOTAL), size of the BOC (BOCSIZE) has significant positive at the 5% level on long-term performance (Tobin's Q) as shown in Model 2 (Table 7.1 Panel A.1 column 7). However, it has significant negative effects at the 10% level on firm performance measured with short-term performance (ROA and CFO) as shown in Model 2 (Table 7.1 Panel A.1 columns 5 and 6) while controlling total size of RPTs (RPTTOTAL). Similar results are obtained while the following RPTs are controlled: RPTs based on the nature of the transaction: RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES (Table 7.2 Panel A.2 and Panel A.5), RPTs based on the status of related party: RPTPERSON and RPTENTITY (Table 7.3 Panel A.2), and RPTs entity based on the nature of the relationship: RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF (Table 7.4 Panel A.2), with the exception of Model 18, Model 19 and Model 20 when firm performance is measured with ROA, the effects are insignificant (Table 7.2 Panel A.5 columns 2, 5 and 8).

While controlling for the total size of RPTs (RPTTOTAL), total size of the BOD and BOC (BOARDSIZE) has significant positive relationship at the 1% level on firm performance measured with short-term performance (ROA) and long-term performance (Tobin's Q) as shown by Model 3 (Table 7.1 Panel A columns 8 and 10), but it is insignificant with CFO. The same results are found when the RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) (Table 7.2 Panel A.3 and Panel A.6), RPTs based on the status of related party (RPTPERSON and RPTENTITY) (Table 7.3 Panel A.3), and RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) (Table 7.4 Panel A.3) are controlled. The significance is varied at the 1%, 5% and 10% levels.

Hence, Hypothesis 3e is accepted. Except for size of the BOC (BOCSIZE) on ROA and CFO, there are significant positive effects of size of the BOD (BODSIZE), size of the BOC (BOCSIZE), and total size of the BOD and BOC (BOARDSIZE) on firm performance while controlling RPTs. The findings are consistent with the results in Chapter 6 when the regressions use only size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

The independence of the BOC (INDBOC) has significant positive effects on firm performance while controlling for the total size of RPTs (RPTTOTAL). The significance is at the 1%, 10% and 5% levels when firm performance is measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q), respectively, as shown by Model 4 (Table 7.1 Panel B columns 2, 3 and 4). Similar results are found while controlling RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) as shown by Model 24 to Model 29 (Table 7.2 Panel B.1 and Panel B.2), except for Model 29 (column 9) and while controlling RPTs based on the status of related party (RPTPERSON and RPTENTITY) as shown in Model 45, Model 46 and Model 47 (Table 7.3 Panel B). While controlling RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF), the effects of INDBOC on firm performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q) are also significant positive at the 1%, 10% and 5% levels, respectively, as shown by Model 63 to Model 66 (Table 7.4 Panel B), except for Model 63 and Model 66 (columns 3 and 12). Thus, Hypothesis 3f is accepted. These findings are consistent with the results in Chapter 6 when the regressions use only the independence of BOC (INDBOC) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

While controlling for the total size of RPTs (RPTTOTAL), committees established in the BOC (BOCCOM) has significant positive effects at the 1%, 1% and 10% levels on firm performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q), respectively, as shown by Model 5 (Table 7.1 Panel B columns 5, 6 and 7). The same results are found while controlling RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) (Table 7.2 Panel C), RPTs based on the status of related party (RPTPERSON and RPTENTITY) (Table 7.3 Panel C) and RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) (Table 7.4 Panel C.1 and Panel C.2), except for Model 33 (Panel C.2 column 4). Therefore, Hypothesis 3g is accepted since there are significant positive effects of committees established in the BOC on firm performance measured with short-term performance (ROA and CFO) and long-term performance (Tobin's Q). The results are consistent with the results in Chapter 6 when the regressions use only committees established in the BOC (BOCCOM) and the firm characteristics (FSIZE, LEV and GROWTH) as independent variables.

7.4.6 Summary of the Combined Effects Results

This study accepts Hypothesis 3 that there is a significant positive effect of RPTs and the characteristics of corporate governance on firm performance, as summarised in Table 7.5. Hypothesis 4 is accepted because all of the specific hypotheses are accepted, with only the exception of Hypothesis 3b, which is accepted in 8 out of 12 results. The effects of RPTs total (RPTTOTAL), RPTs based on the nature of transaction (RPTSALES and RPTPURCHASES), RPTs based on the status of related party (RPTENTITY), and sub-categories of RPTs entity based on the nature of relationship (RPTENTITY_ASSC and RPTENTITY_OAFF) are found to have significant positive relationship on firm performance measured with short-term performance (ROA), while controlling the characteristics of corporate governance. The effects of RPTLIABILITIES are significant positive on firm performance measured with short-term performance (CFO) while controlling the corporate governance. The effects of RPTPERSON are significant positive on firm performance measured with long-term performance (Tobin's Q). The effects of RPTENTITY_SH are significant positive on short-term performance (CFO). However, the effects of RPTLENDING are significant negative on firm performance measured with long-term performance (Tobin's Q) while controlling the characteristics of corporate governance and the effects of RPTENTITY_SH are significant negative on short-term performance (ROA). These results are consistent with the results in Chapter 5 when the RPTs and firm characteristics are used as independent variables.

With regards to the characteristics of corporate governance, the effects of size of the BOD (BODSIZE) and total size of the BOD and BOC (BOARDSIZE) are significant positive on firm performance measured with short-term performance (ROA) and long-term performance (Tobin's Q) while controlling the RPTs. The effects of size of the BOC (BOCSIZE) are significant positive on firm performance measured with long-term performance (Tobin's Q), but significant negative with short-term performance (ROA and CFO) while controlling the RPTs. The effects of independence of the BOC (INDBOC) and committees established in the BOC (BOCCOM) are significant positive on firm performance measured with both short-term performance (ROA and CFO) and long-term performance (Tobin's Q) while controlling the RPTs. These results are also consistent with the results in Chapter 6 when the characteristics of corporate governance and firm characteristics are used as independent variables.

Table 7.5 Summary of the Results for the Combined Effects of RPTs and Characteristics of Corporate Governance on Firm Performance

Research Questions	Hypotheses	Expected	Regression Results	Conclusions
3 Is there a significant effect of RPTs and characteristics of corporate governance on firm performance?	There is a significant positive effect of RPTs and characteristics of corporate governance on firm performance?			
3.a While controlling for each characteristic of corporate governance, is there a significant effect of total size of RPTs (RPTTOTAL) on firm performance?	H3a There is a significant positive effect of total size of RPTs (RPTTOTAL) on firm performance while controlling each of the characteristics of corporate governance.	+/-	1. RPTTOTAL has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE 2. RPTTOTAL has sig (+) effects on ROA while controlling INDBOC 3. RPTTOTAL has sig (+) effects on ROA while controlling BOCCOM	accepted H3a
3.b While controlling for each characteristic of corporate governance, is there a significant effect of the RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) on firm performance?	H3b There is a significant positive effect of RPTs based on the nature of the transaction: RPTs sales (RPTSALES), RPTs purchases (RPTPURCHASES), RPTs lending (RPTLENDING) and RPTs liabilities (RPTLIABILITIES) on firm performance while controlling each characteristics of corporate governance.	+/-	1. RPTSALES has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE 2. RPTPURCHASES has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE 3. RPTLENDING has sig (-) effects on Tobin's Q while controlling BODSIZE, BOCSIZE and BOARDSIZE 4. RPTLIABILITIES has sig (+) effect on CFO while controlling BODSIZE, BOCSIZE and BOARDSIZE. 5. RPTSALES has sig (+) effects on ROA while controlling INDBOC 6. RPTPURCHASES has sig (+) effects on ROA while controlling INDBOC 7. RPTLENDING has sig (-) effects on Tobin's Q while controlling INDBOC 8. RPTLIABILITIES has sig (+) effect on CFO while controlling INDBOC 9. RPTSALES has sig (+) effects on ROA while controlling BOCCOM 10. RPTPURCHASES has insig effects on ROA, CFO and Tobin's Q while controlling BOCCOM 11. RPTLENDING has sig (-) effects on Tobin's Q while controlling BOCCOM 12. RPTLIABILITIES has sig (+) effect on CFO while controlling BOCCOM	accepted H3b
3.c While controlling for each characteristic of corporate governance, is there a significant effect of the RPTs based on the status of related party; RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) on firm performance?	H3c There is a significant positive effect of the RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) on firm performance while controlling each characteristic of corporate governance.	+/-	1. RPTPERSON has sig (+) effects on Tobin's Q while controlling BODSIZE, BOCSIZE and BOARDSIZE. 2. RPTENTITY has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE. 3. RPTPERSON has sig (+) effects on Tobin's Q while controlling INDBOC 4. RPTENTITY has sig (+) effects on ROA while controlling INDBOC. 5. RPTPERSON has sig (+) effects on Tobin's Q while controlling BOCCOM. 6. RPTENTITY has sig (+) effects on ROA while controlling BOCCOM	accepted H3c
3.d While controlling for each characteristic of corporate governance, is there a significant	H3d There is a significant effect of the RPTs entity based on the nature of the relationship	+/-	1. RPTENTITY_SH has insig on ROA, CFO, and Tobin's Q while controlling BODSIZE, sig (-) on ROA but sig (+) on CFO while controlling BOCSIZE, sig (-) on ROA while controlling BOARDSIZE.	

Research Questions		Hypotheses		Expected	Regression Results	Conclusions
	effect of the RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC RPTENTITY_OAFF) on firm performance?		(RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF) on firm performance while controlling each of the corporate governance characteristics.		2. RPTENTITY_ASSC has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE. 3. RPTENTITY_OAFF has sig (+) effects on ROA while controlling BODSIZE, BOCSIZE and BOARDSIZE. 4. RPTENTITY_SH has sig (-) effects on ROA while controlling INDBOC. 5. RPTENTITY_ASSC has sig (+) effects on ROA while controlling INDBOC 6. RPTENTITY_OAFF has sig (+) effects on ROA while controlling INDBOC 7. RPTENTITY_SH has sig (-) effects on ROA while controlling BOCCOM. 8. RPTENTITY_ASSC has sig (+) effects on ROA while controlling BOCCOM. 9. RPTENTITY_OAFF has sig (+) effects on ROA while controlling BOCCOM.	accepted H3d
3.e	While controlling the RPTs, is there a significant effect of size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) on firm performance?	H3e	There is a significant positive effect of size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) on firm performance while controlling the RPTs.	+/-	1. BODSIZE has sig (+) effects on ROA and Tobin's Q while controlling RPTTOTAL, RPTSALES, RPTPURCHASE, RPTLENDING, RPTLIABILITIES, RPTPERSON, RPTENTITY, RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF. 2. BOCSIZE has sig (+) on Tobin's Q but it is sig (-) effects on ROA and CFO while controlling RPTTOTAL, RPTSALES, RPTPURCHASES, RPTPERSON, RPTENTITY, RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF; BOCSIZE has sig (+) on Tobin's Q but it is sig (-) on CFO while controlling RPTLENDING and RPTLIABILITIES. 3. BOARDSIZE has sig (+) effects on ROA and Tobin's Q while controlling RPTTOTAL, RPTSALES, RPTPURCHASE, RPTLENDING, RPTLIABILITIES, RPTPERSON, RPTENTITY, RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF.	accepted H3e
3.f	While controlling the RPTs, is there a significant effect of independence of the BOC (INDBOC) on firm performance?	H3f	There is a significant positive effect of independence of the BOC (INDBOC) on firm performance while controlling the RPTs.	+	1. INDBOC has sig (+) effects on ROA, CFO and Tobin's Q while controlling RPTTOTAL, RPTSALES, RPTPURCHASE, RPTLENDING, RPTLIABILITIES, RPTPERSON, RPTENTITY, RPTENTITY_ASSC and RPTENTITY_OAFF, and only on ROA and Tobin's Q while controlling RPTENTITY_SH, RPTLENDING and RPTLIABILITIES, RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF.	accepted H3f
3.g	While controlling the RPTs, is there a significant effect of committees established in the BOC (BOCCOM) on firm performance?	H3g	There is a significant positive effect of committees established in the BOC (BOCCOM) on firm performance while controlling the RPTs.	+	1. BOCCOM has sig (+) effects on ROA, CFO and Tobin's Q while controlling RPTTOTAL, RPTSALES, RPTPURCHASES, RPTLIABILITIES, RPTPERSON, RPTENTITY, RPTENTITY_SH, RPTENTITY_ASSC, and RPTENTITY_OAFF and only on ROA and CFO while controlling RPTLENDING.	accepted H3g

7.5 Interaction Effects of RPTs and Characteristics of Corporate Governance on Firm Performance

This study addresses a moderator variable to the combined effects of RPTs and characteristics of corporate governance on firm performance as reported and discussed in the previous section. An independent variable called the interaction term of RPTs and characteristics of corporate governance is employed to examine whether characteristics of corporate governance serve as a moderator variable. The characteristics of corporate governance serve as moderator variable when the interaction term is included in the regression and a significant relationship between the interaction term and firm performance is found. According to Baron and Kenny (1986), moderated regression analysis is the most suitable analysis when the relationship between dependent variable and independent variables is provisional on the values assumed by other variables. The assumption in the moderated regression analyisis is that the outcome of one independent variable (RPTs) on the dependent variable (firm performance) depends on the level of one or more other independent variables (characteristics of corporate governance).

The results of the regression analysis on the interaction effects of RPTs and characteristics of corporate governance are presented in Table 7.6 to Table 7.9. Table 7.6 presents the results for the interaction effects of total size of RPTs (RPTTOTAL) and characteristics of corporate governance, including size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), independence of the BOC (INDBOC) and committees established in the BOC (BOCCOM) on firm performance. Table 7.7 reports the results for the interaction effects of RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) and each characteristic of corporate governance that are employed in the models (size of the BOC, size of the BOC, total size of the BOD and BOC, independence of the BOC and committees established in the BOC) on firm performance. Table 7.8 shows the results for the interaction effects of RPTs based on status of related party (RPTPERSON and RPTENTITY) and each characteristic of corporate governance that are employed in the models (size of the BOC, size of the BOC, total size of the BOD and BOC, independence of the BOC and committees established in the BOC) on firm performance. Table 7.9 states the results for the interaction effects of RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and each characteristic of corporate governance that are employed in the models (size of the BOC, size of the BOC, total size of the BOD and BOC, independence of the BOC and committees established in the BOC) on firm performance.

The F-statistics for all models (Model 1 to Model 70) as stated in Table 7.6 to Table 7.9 are found significant at the 1% level, showing that the models are satisfactorily fit. The adjusted R-squared,

which shows the explanatory power of the model, with the GLS FE model are between 0.6663 to 0.9272 (ROA: 0.9052 to 0.9272, CFO: 0.7651 to 0.7836, and Tobin's Q: 0.6663 to 0.8928). These results suggest that the RPTs, characteristics of corporate governance, interaction effects of RPTs and characteristics of corporate governance, and firm characteristics as independent variables can describe the variation of firm performance for 66.63% to 92.72% (ROA: 90.52% to 92.72%, CFO: 76.51% to 78.36%, and Tobin's Q: 66.63% to 89.28%).

The following sections will report and discuss the regression results for the interaction effects of RPTs and characteristics of corporate governance on firm performance.

7.5.1 Interaction Effects of Total Size of RPTs (RPTTOTAL) and the Characteristics of Corporate Governance on Firm Performance

As discussed in Section 7.4.1, this study finds that total size of RPTs (RPTTOTAL) have significant positive effects on firm performance measured with short-term performance (ROA) while controlling the characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC). The effects are insignificant when firm performance is measured with another short-term performance (CFO) and long-term performance (Tobin's Q). This study observes whether the relationship of total size of RPTs (RPTTOTAL) and short-term firm performance measured with ROA is moderated by the characteristics of corporate governance, including size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), independence of the BOC (INDBOC), and committees established in the BOC (BOCCOM).

The interaction effects between size of the BOD (BODSIZE) and total size of RPTs (RPTTOTAL) on firm performance measured with short-term performance (ROA) are insignificant (Table 7.6 Panel A). Similar results are found when total size of RPTs (RPTTOTAL) is interacted with size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE). The interaction effects between independence of the BOC (INDBOC) and total size of RPTs (RPTTOTAL) are also insignificant on firm performance measured with ROA as seen in Table 7.6 Panel B. When total size of RPTs (RPTTOTAL) is interacted with committees established in the BOC (BOCCOM), their interaction effects are also insignificant on firm performance measured with ROA. This means that there is no evidence that the relationship between total size of RPTs (RPTTOTAL) and firm performance measured with ROA is moderated by the size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOC and BOC (BOARDSIZE), independence of the BOC (INDBOC), and committees established in the BOC (BOCCOM). Therefore, Hypothesis 4a is rejected. The relationship between total size of RPTs (RPTTOTAL) and short-term firm performance measured with ROA is not moderated by the characteristics of corporate governance.

Table 7.6 Interaction Effects of Total Size of RPTs and Characteristics of Corporate Governance on Firm Perfomance

Panel A. Interaction Effects of RPTTOTAL and BODSIZE, BOCSIZE, BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1060 (1.5307)	0.3366 ** (2.3886)	-7.3666 *** (-6.5802)	0.1151 (1.5907)	0.3464 ** (2.3719)	-6.5648 *** (-6.1107)	0.0853 (1.1227)	0.3121 ** (2.1589)	-7.2610 *** (-6.3952)
RPTTOTAL	0.0323 (1.4784)	0.0804 * (1.7405)	-0.3895 (-1.3515)	0.0120 (0.3540)	-0.0012 (-0.0245)	-0.9076 ** (-2.4362)	0.0821 * (1.8131)	0.0635 (0.7722)	-0.5480 (-1.0165)
BODSIZE	0.0478 *** (6.9160)	0.0133 (0.9633)	0.2704 ** (2.4366)						
BOCSIZE				-0.0114 (-1.2593)	-0.0260 (-1.5962)	0.0347 (0.5058)			
BOARDSIZE							0.0359 *** (2.8569)	-0.0069 (-0.3217)	0.4554 *** (3.2287)
RPTTOTAL*BODSIZE	-0.0087 (-0.6868)	-0.0502 * (-1.8571)	0.2959 * (1.6543)						
RPTTOTAL*BOCSIZE				0.0030 (0.1488)	0.0000 (0.0001)	0.6160 *** (2.6929)			
RPTTOTAL*BOARDSIZE							-0.0290 (-1.5177)	-0.0272 (-0.7864)	0.2822 (1.1788)
FSIZE	-0.0009 (-0.3675)	-0.0083 * (-1.6689)	0.3051 *** (7.7558)	0.0021 (0.8561)	-0.0067 (-1.3556)	0.2882 *** (7.7629)	-0.0003 (-0.1116)	-0.0063 (-1.2448)	0.2780 *** (7.4229)
LEVERAGE	-0.0982 *** (-8.0602)	-0.0540 *** (-3.9581)	0.2587 * (1.9183)	-0.0945 *** (-7.8555)	-0.0452 *** (-3.0935)	0.4083 *** (3.9646)	-0.0989 *** (-7.9799)	-0.0492 *** (-3.3797)	0.3791 *** (3.1614)
GROWTH	0.0181 *** (4.3130)	0.0140 *** (3.9212)	0.0767 ** (1.9746)	0.0191 *** (4.4871)	0.0151 *** (3.8529)	0.1006 *** (2.7428)	0.0196 *** (4.6285)	0.0150 *** (3.8323)	0.0777 ** (1.9801)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9361	0.8037	0.7526	0.9274	0.8045	0.8575	0.9324	0.8010	0.7698
Adjusted R-squared	0.9248	0.7689	0.7087	0.9145	0.7699	0.8322	0.9204	0.7657	0.7289
F-statistic	82.6040	23.0747	17.1459	72.0073	23.2001	33.9036	77.7424	22.6924	18.8462
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.6 contd.

Panel B. Interaction Effects of RPTTOTAL and INDBOC, BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 4			Model 5		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1733 ***	0.2657 *	-6.5064 ***	0.1848 ***	0.3303 ***	-6.2360 ***
	(2.7770)	(1.8495)	(-5.4657)	(2.8494)	(2.6225)	(-5.5991)
RPTTOTAL	0.0190	0.0035	1.1133 ***	0.0204 ***	0.0082	0.0564
	(1.1421)	(0.1065)	(4.0127)	(2.7103)	(0.6297)	(0.5371)
INDBOC	0.1074 ***	0.0563	1.1543 ***			
	(4.9409)	(1.6415)	(3.8323)			
BOCCOM				0.0337 ***	0.0548 ***	0.2382
				(3.2796)	(4.5448)	(1.6291)
RPTTOTAL*INDBOC	0.0028	-0.0062	-2.8372 ***			
	(0.0703)	(-0.0912)	(-4.2244)			
RPTTOTAL*BOCCOM				-0.0036	-0.0277	0.0226
				(-0.3292)	(-1.6004)	(0.1587)
FSIZE	-0.0022	-0.0061	0.2741 ***	-0.0013	-0.0081 *	0.2783 ***
	(-1.0166)	(-1.2300)	(6.6561)	(-0.5705)	(-1.8548)	(7.0905)
LEVERAGE	-0.0913 ***	-0.0464 ***	0.2935 **	-0.1029 ***	-0.0519 ***	0.2325 *
	(-7.9763)	(-3.0138)	(2.2095)	(-8.3517)	(-3.7495)	(1.7429)
GROWTH	0.0187 ***	0.0145 ***	0.1218 ***	0.0221 ***	0.0149 ***	0.1127 ***
	(4.6251)	(3.7569)	(3.2466)	(5.1822)	(3.5323)	(2.9135)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9297	0.8102	0.7201	0.9300	0.8105	0.7714
Adjusted R-squared	0.9172	0.7766	0.6704	0.9174	0.7764	0.7304
F-statistic	74.4993	24.0673	14.4983	73.9323	23.8000	18.7858
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

The characteristics of corporate governance in the forms of the size of BOD, the size of BOC, the size of the firm's board, the independence of the BOC, and the number of committees in the BOC seem to not work to reduce the effects of total RPTs. In the management theory view, the existence and the number of BOD as management function cannot fully control the effects of RPTs, i.e. reducing the effect of total RPTs on firm performance. Similarly, the BOC that has responsibility to supervise and advise the BOD, including reviewng and monitoring the BOD's functions, also does not influence the effects of total RPTs. The independence of the BOC and the number of committees in the BOC that are expected can make the BOC perform better in supervising and advising the BOD related to the total RPTs is not found.

7.5.2 Interaction Effects of RPTs Based on the Nature of the Tansaction (RPTs Sales, RPTs Purchases, RPTs Lending and RPTs Liabilities) and the Characteristics of Corporate Governance on Firm Performance

As presented in Section 7.4.2, this study finds that RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) have significant effects on firm performance while controlling the characteristics of corporate governance. RPTSALES and RPTPURCHASES have significant positive effects on firm performance measured with short-term performance (ROA) while controlling the characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC). Their effects are insignificant when another short-term performance (CFO) and long-term performance (Tobin's Q) are used to measure firm performance. RPTLENDING has significant negative effects on firm performance measured with Tobin's Q while controlling the characteristics of corporate governance. The effects are insignificant when ROA and CFO are used to measure firm performance. RPTLIABILITIES has significant positive effects on firm performance measured with CFO while controlling the characteristics of corporate governance, but the effects are insignificant with ROA and Tobin's Q. This study examines whether those relationships are moderated by the characteristics of corporate governance.

The characteristics of corporate governance are found to moderate the relationship between RPTs based on the nature of relationship (particularly RPTs sales and RPTs purchases) and firm performance. The interaction effects between size of the BOD (BODSIZE) and RPTSALES are significant negative at the 1% level on firm performance measured with ROA as shown by Model 6 and Model 8 (Table 7.7 Panel A.1 columns 2 and 8). Similar results are found in the interaction effects of size of the BOC (BOCSIZE) and RPTSALES, the interaction effects of total size of the BOD and BOC (BOARDSIZE) and RPTSALES, and the interaction effects of independence of the BOC (INDBOC) and RPTSALES on firm performance measured with ROA at the 10% level, 1% level, and 1% level as seen in Model 9 and Model 11 (Table 7.7 Panel A.2 columns 2 and 8),

Table 7.7 Interaction Effect of RPTs Based on the Nature of the Transaction (RPTs Sales, RPTs Purchases, RPTs Lending and RPTs Liabilities) and Characteristics of Corporate Governance on Firm Perfomance

Panel A.1. Interaction Effects of RPTSALES, RPTPURCHASES and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 6			Model 7			Model 8		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0527 (0.6683)	0.3403 ** (2.3547)	-7.3967 *** (-6.4658)	0.1023 (1.4904)	0.3732 *** (2.6002)	-7.4319 *** (-6.6218)	0.0125 (0.1623)	0.3873 *** (2.6720)	-7.4727 *** (-6.4739)
RPTSALES	0.2571 *** (3.0476)	-0.1677 * (-1.6640)	2.3449 *** (5.8664)				0.2513 *** (3.1432)	-0.1407 (-1.4132)	2.1505 *** (3.8924)
RPTPURCHASES				-0.0759 * (-1.8174)	0.1135 (1.5349)	0.1325 (0.2800)	-0.0703 * (-1.9377)	0.1049 (1.4370)	0.1989 (0.4757)
BODSIZE	0.0543 *** (9.2747)	-0.0055 (-0.4159)	0.4284 *** (4.3945)	0.0351 *** (5.3820)	0.0098 (0.7454)	0.3452 *** (3.2932)	0.0430 *** (6.3481)	0.0052 (0.3742)	0.4251 *** (3.7351)
RPTSALES*BODSIZE	-0.1289 *** (-3.1778)	0.0813 (1.6478)	-1.4354 *** (-5.4969)				-0.1254 *** (-3.2750)	0.0685 (1.4069)	-1.3312 *** (-4.0253)
RPTPURCHASES*BODSIZE				0.0637 ** (2.2329)	-0.0936 * (-1.9619)	-0.0403 (-0.1346)	0.0589 ** (2.4349)	-0.0866 * (-1.8361)	-0.1121 (-0.4089)
FSIZE	0.0007 (0.2575)	-0.0075 (-1.4713)	0.2990 *** (7.4523)	-0.0001 (-0.0235)	-0.0094 * (-1.8330)	0.3033 *** (7.6440)	0.0026 (0.9738)	-0.0096 * (-1.8566)	0.3016 *** (7.4258)
LEVERAGE	-0.0936 *** (-7.6698)	-0.0504 *** (-3.4616)	0.3082 ** (2.2862)	-0.0910 *** (-7.5034)	-0.0518 *** (-3.6478)	0.2978 ** (2.1997)	-0.0909 *** (-7.5552)	-0.0532 *** (-3.7115)	0.3106 ** (2.2392)
GROWTH	0.0196 *** (4.5316)	0.0150 *** (3.9119)	0.0759 * (1.9445)	0.0181 *** (4.3287)	0.0141 *** (3.8242)	0.0742 * (1.9099)	0.0195 *** (4.5891)	0.0145 *** (3.8619)	0.0765 * (1.9588)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9363	0.8078	0.7487	0.9353	0.8071	0.7489	0.9355	0.8080	0.7431
Adjusted R-squared	0.9250	0.7737	0.7041	0.9238	0.7729	0.7043	0.9238	0.7731	0.6965
F-statistic	82.8953	23.6842	16.7923	81.4983	23.5878	16.8095	79.8570	23.1626	15.9257
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel A.2. Interaction Effects of RPTSALES, RPTPURCHASES and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 9			Model 10			Model 11		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0750 (1.0005)	0.4023 *** (2.7877)	-7.3497 *** (-6.4746)	0.1926 *** (3.0624)	0.3482 ** (2.4223)	-7.4709 *** (-6.9049)	0.0837 (1.1299)	0.4079 *** (2.8205)	-7.3802 *** (-6.4962)
RPTSALES	0.1889 ** (2.2035)	-0.2611 *** (-2.8152)	1.1674 * (1.7519)				0.2026 ** (2.3248)	-0.2551 *** (-2.7380)	1.0987 (1.6252)
RPTPURCHASES				-0.0829 ** (-2.1951)	-0.0169 (-0.2032)	0.6720 (1.2676)	-0.0860 ** (-2.4967)	0.0049 (0.0604)	0.6391 (1.2173)
BOCSIZE	-0.0068 (-0.8376)	-0.0446 *** (-2.9020)	0.2322 *** (2.7245)	-0.0205 ** (-2.5156)	-0.0264 * (-1.7483)	0.2301 *** (2.8377)	-0.0152 * (-1.7643)	-0.0419 *** (-2.6252)	0.2640 *** (2.9131)
RPTSALES*BOCSIZE	-0.0882 * (-1.8426)	0.1621 *** (2.8915)	-0.7311 * (-1.7549)				-0.0951 * (-1.9437)	0.1592 *** (2.8319)	-0.7003 * (-1.6628)
RPTPURCHASES*BOCSIZE				0.0598 *** (2.7465)	-0.0046 (-0.0948)	-0.3697 (-1.1196)	0.0611 *** (3.1002)	-0.0164 (-0.3477)	-0.3533 (-1.0722)
FSIZE	0.0032 (1.2536)	-0.0078 (-1.5684)	0.3061 *** (7.8673)	0.0000 (-0.0147)	-0.0067 (-1.3453)	0.3101 *** (8.3098)	0.0032 (1.3002)	-0.0080 (-1.6110)	0.3055 *** (7.8518)
LEVERAGE	-0.0904 *** (-7.4803)	-0.0428 *** (-2.9728)	0.3840 *** (3.2339)	-0.0923 *** (-7.7331)	-0.0471 *** (-3.2443)	0.3766 *** (3.2547)	-0.0878 *** (-7.3547)	-0.0443 *** (-3.0671)	0.3669 *** (3.0663)
GROWTH	0.0208 *** (4.8488)	0.0157 *** (3.9069)	0.1025 *** (2.6191)	0.0187 *** (4.3476)	0.0152 *** (3.8148)	0.0967 ** (2.4998)	0.0203 *** (4.7526)	0.0157 *** (3.9055)	0.1023 *** (2.5967)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9297	0.8089	0.7629	0.9259	0.8049	0.7721	0.9305	0.8088	0.7574
Adjusted R- squared	0.9173	0.7750	0.7208	0.9128	0.7703	0.7316	0.9179	0.7741	0.7134
F-statistic	74.5938	23.8545	18.1367	70.4278	23.2600	19.0935	73.7396	23.2884	17.1908
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel A.3. Interaction Effects of RPTSALES, RPTPURCHASES and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 12			Model 13			Model 14		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0170 (-0.2015)	0.3924 *** (2.6756)	-7.9484 *** (-6.9295)	0.1449 ** (2.1163)	0.3403 ** (2.3482)	-7.5556 *** (-6.8183)	-0.0331 (-0.4065)	0.4025 *** (2.7385)	-8.0033 *** (-6.9042)
RPTSALES	0.5241 *** (3.4120)	-0.4198 *** (-2.7024)	3.5607 *** (4.6358)				0.5275 *** (3.4943)	-0.3986 ** (-2.5522)	3.5136 *** (3.9171)
RPTPURCHASES				-0.1668 *** (-2.6045)	0.0713 (0.5646)	1.1637 (1.3400)	-0.1551 *** (-2.6438)	0.0724 (0.5805)	1.2285 (1.4911)
BOARDSIZE	0.0456 *** (4.1024)	-0.0399 ** (-1.9804)	0.7242 *** (5.4674)	0.0114 (1.0724)	-0.0133 (-0.6720)	0.6229 *** (4.7258)	0.0287 ** (2.4264)	-0.0321 (-1.4992)	0.7863 *** (5.3833)
RPTSALES*BOARDSIZE	-0.1997 *** (-3.3318)	0.1672 *** (2.7001)	-1.5580 *** (-4.5372)				-0.1995 *** (-3.3892)	0.1589 ** (2.5550)	-1.5407 *** (-3.9341)
RPTPURCHASES*BOARDSIZE				0.0807 *** (2.8794)	-0.0423 (-0.7742)	-0.4935 (-1.2727)	0.0748 *** (2.9286)	-0.0413 (-0.7654)	-0.5453 (-1.4629)
FSIZE	0.0025 (0.8935)	-0.0065 (-1.2697)	0.2825 *** (7.3711)	-0.0003 (-0.1513)	-0.0067 (-1.2996)	0.2758 *** (7.3384)	0.0043 (1.5988)	-0.0074 (-1.4178)	0.2795 *** (7.2186)
LEVERAGE	-0.0921 *** (-7.5310)	-0.0473 *** (-3.1751)	0.4011 *** (3.2774)	-0.0962 *** (-8.1313)	-0.0488 *** (-3.2841)	0.3833 *** (3.1208)	-0.0903 *** (-7.6313)	-0.0492 *** (-3.3051)	0.3979 *** (3.2145)
GROWTH	0.0213 *** (5.0130)	0.0162 *** (3.8092)	0.0764 * (1.9215)	0.0193 *** (4.6156)	0.0153 *** (3.7072)	0.0770 * (1.9453)	0.0207 *** (4.9864)	0.0161 *** (3.7861)	0.0775 * (1.9376)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9324	0.8042	0.7508	0.9318	0.8015	0.7531	0.9338	0.8040	0.7446
Adjusted R-squared	0.9204	0.7695	0.7066	0.9197	0.7662	0.7093	0.9218	0.7684	0.6982
F-statistic	77.7424	23.1534	16.9795	77.0590	22.7533	17.1918	77.6767	22.5841	16.0496
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel A.4. Interaction Effects of RPTLENDING, RPTLIABILITIES and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 15			Model 16			Model 17		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0828 (1.0714)	0.2828 ** (1.9988)	-6.9055 *** (-6.1108)	0.1170 * (1.6665)	0.2633 * (1.8665)	-6.8695 *** (-6.4434)	0.0636 (0.8221)	0.2326 * (1.6784)	-6.5905 *** (-6.0830)
RPTLENDING	0.3789 * (1.8001)	0.6325 *** (2.8264)	-2.4068 ** (-2.1985)				0.3285 (1.5409)	0.5649 *** (2.8368)	-1.1505 (-1.1723)
RPTLIABILITIES				0.0897 (1.3866)	0.3796 *** (3.9939)	-4.5985 *** (-4.5078)	0.0689 (0.9592)	0.3752 *** (3.8280)	-3.8717 *** (-3.3838)
BODSIZE	0.0513 *** (8.0423)	0.0077 (0.5878)	0.2774 *** (2.7016)	0.0524 *** (8.8219)	0.0102 (0.7945)	0.1414 (1.6329)	0.0550 *** (8.3163)	0.0172 (1.2970)	0.1265 (1.3837)
RPTLENDING*BODSIZE	-0.2255 * (-1.9005)	-0.3503 ** (-2.3786)	1.3912 * (1.7424)				-0.2007 * (-1.6636)	-0.3190 ** (-2.3246)	0.5278 (0.7060)
RPTLIABILITIES*BODSIZE				-0.0643 (-1.4511)	-0.2174 *** (-3.2594)	3.8380 *** (5.1950)	-0.0494 (-1.0277)	-0.2119 *** (-3.1201)	3.3303 *** (4.1277)
FSIZE	-0.0001 (-0.0404)	-0.0063 (-1.2637)	0.2885 *** (7.2333)	-0.0013 (-0.5253)	-0.0053 (-1.0794)	0.2944 *** (7.7953)	0.0005 (0.1773)	-0.0047 (-0.9702)	0.2855 *** (7.4243)
LEVERAGE	-0.0969 *** (-7.7954)	-0.0501 *** (-3.5139)	0.3307 ** (2.4834)	-0.1015 *** (-7.4004)	-0.0790 *** (-5.6072)	0.2746 ** (2.2443)	-0.1025 *** (-7.3073)	-0.0786 *** (-5.6155)	0.2903 ** (2.3377)
GROWTH	0.0193 *** (4.5162)	0.0144 *** (3.9472)	0.0790 ** (2.0504)	0.0185 *** (4.2553)	0.0148 *** (3.7886)	0.0721 ** (1.9776)	0.0193 *** (4.4175)	0.0147 *** (3.8075)	0.0745 ** (2.0618)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9361	0.8076	0.7555	0.9373	0.8019	0.7989	0.9368	0.8041	0.7976
Adjusted R-squared	0.9247	0.7735	0.7121	0.9262	0.7667	0.7633	0.9254	0.7685	0.7609
F-statistic	82.5150	23.6648	17.4148	84.2924	22.8134	22.3960	81.6417	22.5964	21.6994
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel A.5. Interaction Effects of RPTLENDING, RPTLIABILITIES and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 18			Model 19			Model 20		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1837 ** (2.5780)	0.2673 * (1.8188)	-6.6504 *** (-5.9494)	0.1599 ** (2.3226)	0.2555 * (1.7634)	-6.7767 *** (-6.7718)	0.1613 ** (2.1415)	0.2028 (1.3807)	-6.0030 *** (-5.7422)
RPTLENDING	0.0656 (0.3689)	0.7000 * (1.8549)	-2.9625 (-1.6328)				0.0620 (0.3238)	0.6370 * (1.7084)	-1.4589 (-0.7644)
RPTLIABILITIES				0.0193 (0.2082)	0.3544 ** (2.5499)	-6.3914 *** (-4.8455)	0.0196 (0.2040)	0.3322 ** (2.3428)	-5.8544 *** (-4.3185)
BOCSIZE	-0.0103 (-1.2550)	-0.0169 (-1.0572)	0.1589 * (1.9256)	-0.0104 (-1.2360)	-0.0111 (-0.7487)	-0.0644 (-1.3245)	-0.0071 (-0.7976)	-0.0021 (-0.1282)	-0.0716 (-1.3337)
RPTLENDING*BOCSIZE	-0.0432 (-0.3653)	-0.4087 * (-1.6634)	1.4297 (1.1662)				-0.0505 (-0.4019)	-0.3867 (-1.5878)	0.5226 (0.4018)
RPTLIABILITIES*BOCSIZE				-0.0058 (-0.1055)	-0.1657 ** (-2.0259)	4.5230 *** (5.4230)	-0.0078 (-0.1382)	-0.1542 ** (-1.8552)	4.1710 *** (4.9005)
FSIZE	-0.0002 (-0.0826)	-0.0046 (-0.9110)	0.2861 *** (7.4767)	0.0007 (0.3161)	-0.0041 (-0.8166)	0.3029 *** (8.4779)	0.0005 (0.2110)	-0.0028 (-0.5521)	0.2766 *** (7.4864)
LEVERAGE	-0.0954 *** (-7.6608)	-0.0454 *** (-3.1116)	0.4008 *** (3.5600)	-0.1017 *** (-7.5910)	-0.0738 *** (-5.0728)	0.2863 *** (2.8641)	-0.1025 *** (-7.3355)	-0.0728 *** (-4.9726)	0.3084 *** (3.0980)
GROWTH	0.0212 *** (4.7263)	0.0150 *** (3.7684)	0.1016 *** (2.6551)	0.0192 *** (4.3853)	0.0153 *** (3.8004)	0.0954 *** (2.7454)	0.0216 *** (4.7439)	0.0152 *** (3.7683)	0.1041 *** (3.0191)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9237	0.8076	0.7856	0.9254	0.8080	0.9064	0.9234	0.8099	0.9093
Adjusted R-squared	0.9102	0.7734	0.7475	0.9121	0.7739	0.8898	0.9094	0.7754	0.8928
F-statistic	68.2737	23.6526	20.6475	69.8890	23.7149	54.6049	66.3186	23.4563	55.1979
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel A.6. Interaction Effects of RPTLENDING, RPTLIABILITIES and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 21			Model 22			Model 23		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0879 (1.0950)	0.2517 * (1.7463)	-6.8606 *** (-6.1778)	0.1076 (1.4522)	0.2344 (1.6191)	-7.0279 *** (-6.6288)	0.0455 (0.5532)	0.1801 (1.2568)	-6.6764 *** (-6.2050)
RPTLENDING	0.4699 (1.4085)	1.1871 *** (2.7215)	-4.0210 * (-1.9154)				0.3999 (1.1355)	1.0635 *** (2.5867)	-1.3806 (-0.6736)
RPTLIABILITIES				0.1029 (0.8481)	0.5642 *** (3.1757)	-10.7137 *** (-5.9213)	0.1057 (0.8170)	0.5502 *** (2.9916)	-10.0399 *** (-5.2525)
BOARDSIZE	0.0323 *** (2.9008)	-0.0055 (-0.2792)	0.4921 *** (3.6975)	0.0323 *** (2.9838)	-0.0001 (-0.0075)	0.2165 * (1.9561)	0.0369 *** (3.1200)	0.0131 (0.6456)	0.2110 * (1.7771)
RPTLENDING*BOARDSIZE	-0.1957 (-1.3582)	-0.4939 ** (-2.4631)	1.6010 (1.5344)				-0.1683 (-1.1083)	-0.4528 ** (-2.3639)	0.4383 (0.4475)
RPTLIABILITIES*BOARDSIZE				-0.0450 (-0.8420)	-0.2152 *** (-2.7367)	5.2465 *** (6.2179)	-0.0470 (-0.8330)	-0.2090 ** (-2.5807)	4.9415 *** (5.5889)
FSIZE	0.0000 (-0.0044)	-0.0044 (-0.8717)	0.2620 *** (7.0212)	-0.0006 (-0.2300)	-0.0038 (-0.7592)	0.2903 *** (7.9894)	0.0012 (0.4495)	-0.0030 (-0.6045)	0.2787 *** (7.6036)
LEVERAGE	-0.0958 *** (-7.6337)	-0.0472 *** (-3.1798)	0.4139 *** (3.4832)	-0.1019 *** (-7.4724)	-0.0773 *** (-5.3026)	0.2960 ** (2.4028)	-0.1018 *** (-7.2426)	-0.0767 *** (-5.2539)	0.3079 ** (2.4978)
GROWTH	0.0216 *** (4.9810)	0.0150 *** (3.7299)	0.0796 ** (2.0424)	0.0198 *** (4.5925)	0.0152 *** (3.6685)	0.0802 ** (2.1396)	0.0217 *** (4.9617)	0.0149 *** (3.6413)	0.0829 ** (2.2143)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9288	0.8041	0.7683	0.9319	0.8031	0.7995	0.9304	0.8055	0.8017
Adjusted R-squared	0.9161	0.7693	0.7271	0.9198	0.7682	0.7639	0.9178	0.7702	0.7656
F-statistic	73.5020	23.1304	18.6850	77.0740	22.9882	22.4693	73.5901	22.8034	22.2491
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel B.1. Interaction Effects of RPTSALES, RPTPURCHASES and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 24			Model 25			Model 26		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1867 ***	0.2647 *	-6.3253 ***	0.2225 ***	0.2702 *	-6.2176 ***	0.1751 ***	0.2718 *	-6.2149 ***
	(2.8036)	(1.8476)	(-5.3469)	(3.7472)	(1.8951)	(-5.2371)	(2.6916)	(1.8942)	(-5.2417)
RPTSALES	0.1529 ***	-0.0753	2.3675 ***				0.1589 ***	-0.0716	2.4337 ***
	(2.9211)	(-1.0811)	(5.7406)				(3.0558)	(-1.0192)	(5.9103)
RPTPURCHASES				-0.0344 *	-0.0193	0.0540	-0.0418 **	-0.0116	-0.1147
				(-1.7827)	(-0.2603)	(0.0837)	(-2.0624)	(-0.1572)	(-0.1719)
INDBOC	0.1409 ***	0.0445	0.9690 ***	0.0945 ***	0.0551 *	0.6450 **	0.1202 ***	0.0452	0.9426 ***
	(7.5191)	(1.3509)	(3.5271)	(4.9324)	(1.6867)	(2.3897)	(6.0718)	(1.3354)	(3.3823)
RPTSALES*INDBOC	-0.2795 ***	0.1253	-5.8264 ***				-0.2962 ***	0.1209	-5.9468 ***
	(-2.8284)	(1.0824)	-6.5367				(-3.0393)	(1.0368)	(-6.7885)
RPTPURCHASES*INDBOC				0.1346 ***	-0.0159	-0.0317	0.1478 ***	-0.0328	0.4242
				(3.2134)	(-0.0898)	(-0.0193)	(3.2686)	(-0.1869)	(0.2466)
FSIZE	-0.0031	-0.0058	0.2691 ***	-0.0036 *	-0.0061	0.2692 ***	-0.0026	-0.0060	0.2651 ***
	(-1.3654)	(-1.1750)	6.5961	(-1.7905)	(-1.2438)	(6.5588)	(-1.1378)	(-1.2012)	(6.4863)
LEVERAGE	-0.0877 ***	-0.0474 ***	0.3516 ***	-0.0881 ***	-0.0479 ***	0.4075 ***	-0.0842 ***	-0.0487 ***	0.3670 ***
	(-7.7773)	(-3.1133)	2.7469	(-7.7017)	(-3.1431)	(3.2428)	(-7.4921)	(-3.2043)	(2.9161)
GROWTH	0.0197 ***	0.0146 ***	0.1166 ***	0.0186 ***	0.0146 ***	0.1134 ***	0.0191 ***	0.0146 ***	0.1161 ***
	(4.8358)	3.8096	3.1127	(4.6152)	(3.8058)	(3.0304)	(4.7776)	(3.8311)	(3.1136)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9272	0.8103	0.7273	0.9292	0.8111	0.7195	0.9269	0.8108	0.7296
Adjusted R-squared	0.9143	0.7766	0.6790	0.9166	0.7776	0.6698	0.9137	0.7765	0.6805
F-statistic	71.7872	24.0712	15.0357	73.9630	24.2040	14.4610	69.8455	23.5969	14.8527
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel B.2. Interaction Effects of RPTLENDING, RPTLIABILITIES and INDBOC2 on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 27			Model 28			Model 29		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2476 ***	0.2376	-5.6703 ***	0.2116 ***	0.3013 **	-6.9371 ***	0.2292 ***	0.2783 *	-6.3382 ***
	(3.8739)	(1.6456)	(-4.7847)	(3.3158)	(2.0994)	(-5.7076)	(3.4176)	(1.9187)	(-5.2884)
RPTLENDING	0.3149 **	0.0124	10.8098 ***				0.3198 **	0.0023	10.7794 ***
	(2.2060)	(0.0443)	(5.0976)				(2.2582)	(0.0086)	(5.1484)
RPTLIABILITIES				-0.0848	0.2691 **	3.7589 ***	-0.0994	0.2752 **	2.6420 *
				(-1.2362)	(2.0587)	(2.7644)	(-1.4307)	(2.0977)	(1.8420)
INDBOC	0.1329 ***	0.0480	1.0665 ***	0.0977 ***	0.0640 **	0.8723 ***	0.1156 ***	0.0558	1.2393 ***
	(7.2797)	(1.3857)	(3.5196)	(4.8881)	(2.0030)	(3.0516)	(5.6875)	(1.6135)	(3.9031)
RPTLENDING*INDBOC	-0.8952 **	0.1353	-30.6588 ***				-0.9281 ***	0.1828	-30.3947 ***
	(-2.5309)	(0.2202)	(-5.7665)				(-2.6716)	(0.3033)	(-5.8148)
RPTLIABILITIES*INDBOC				0.2539	-0.5181	-8.7057 ***	0.2950 *	-0.5378	-5.2716
				(1.4481)	(-1.5496)	(-2.7699)	(1.6624)	(-1.6020)	(-1.5577)
FSIZE	-0.0049 **	-0.0051	0.2465 ***	-0.0031	-0.0071	0.2942 ***	-0.0039 *	-0.0063	0.2698 ***
	(-2.2356)	(-1.0206)	(6.0234)	(-1.4169)	(-1.4318)	(6.9738)	(-1.7004)	(-1.2516)	(6.5119)
LEVERAGE	-0.0940 ***	-0.0460 ***	0.3346 **	-0.0968 ***	-0.0722 ***	0.2119	-0.0991 ***	-0.0712 ***	0.1374
	(-8.0276)	(-2.9985)	(2.5792)	(-7.6255)	(-4.7119)	(1.4835)	(-7.6155)	(-4.6317)	(0.9591)
GROWTH	0.0201 ***	0.0146 ***	0.1351 ***	0.0199 ***	0.0144 ***	0.1188 ***	0.0209 ***	0.0144 ***	0.1419 ***
	(4.8051)	(3.7673)	(3.4801)	(4.6993)	(3.6354)	(3.1046)	(4.8200)	(3.6528)	(3.6748)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9271	0.8127	0.7243	0.9283	0.8101	0.7245	0.9259	0.8121	0.7292
Adjusted R-squared	0.9142	0.7794	0.6754	0.9156	0.7765	0.6756	0.9124	0.7779	0.6800
F-statistic	71.6750	24.4485	14.8071	72.9729	24.0504	14.8214	68.7804	23.7861	14.8238
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel C.1. Interaction Effects of RPTSALES, RPTPURCHASES and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 30			Model 31			Model 32		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1662 ** (2.4218)	0.3465 *** (2.7368)	-5.8525 *** (-5.3094)	0.2419 *** (4.1190)	0.3294 *** (2.6494)	-5.9069 *** (-5.3607)	0.1571 ** (2.3189)	0.3442 *** (2.7130)	-5.8720 *** (-5.3128)
RPTSALES	0.0055 (0.2426)	0.0261 (0.8854)	-0.2393 (-0.8232)				0.0082 (0.3556)	0.0270 (0.9148)	-0.2664 (-0.9133)
RPTPURCHASES				0.0233 *** (2.8083)	-0.0168 (-0.8146)	0.0523 (0.3126)	0.0222 *** (2.8160)	-0.0169 (-0.8217)	0.0516 (0.3040)
BOCCOM	0.0223 ** (2.2462)	0.0514 *** (4.6066)	0.2034 (1.5300)	0.0467 *** (5.1333)	0.0490 *** (4.5300)	0.1684 (1.2903)	0.0333 *** (3.1637)	0.0568 *** (4.9725)	0.1689 (1.1735)
RPTSALES*BOCCOM	0.0597 ** (2.4926)	-0.0787 * (-1.6834)	0.0513 (0.1229)				0.0549 ** (2.1393)	-0.0763 (-1.6309)	0.0751 (0.1785)
RPTPURCHASES*BOCCOM				-0.0449 *** (-4.0334)	-0.0344 (-1.5075)	0.1739 (0.8467)	-0.0416 *** (-3.9087)	-0.0332 (-1.4633)	0.1674 (0.8096)
FSIZE	-0.0005 (-0.2102)	-0.0086 * (-1.9613)	0.2657 *** (6.7975)	-0.0033 (-1.6373)	-0.0079 * (-1.8249)	0.2671 *** (6.8618)	-0.0004 (-0.1598)	-0.0085 * (-1.9228)	0.2665 *** (6.8091)
LEVERAGE	-0.0962 *** (-7.9344)	-0.0529 *** (-3.8722)	0.2911 ** (2.2789)	-0.1009 *** (-8.2519)	-0.0533 *** (-3.8798)	0.2809 ** (2.1659)	-0.0952 *** (-7.8696)	-0.0543 *** (-3.9740)	0.2878 ** (2.2313)
GROWTH	0.0233 *** (5.4289)	0.0152 *** (3.6502)	0.1147 *** (3.0172)	0.0236 *** (5.4330)	0.0151 *** (3.6158)	0.1140 *** (2.9815)	0.0236 *** (5.5357)	0.0152 *** (3.5751)	0.1151 *** (3.0186)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9347	0.8093	0.7774	0.9307	0.8110	0.7723	0.9341	0.8094	0.7756
Adjusted R-squared	0.9229	0.7750	0.7374	0.9182	0.7770	0.7313	0.9219	0.7744	0.7343
F-statistic	79.6444	23.6187	19.4333	74.6916	23.8788	18.8729	76.9936	23.0855	18.7867
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.7 contd.

Panel C.2. Interaction Effects of RPTLENDING, RPTLIABILITIES and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 33			Model 34			Model 35		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2957 ***	0.3075 **	-5.2309 ***	0.2162 ***	0.3187 ***	-5.9409 ***	0.2542 ***	0.2995 **	-5.5022 ***
	(4.8791)	(2.4178)	(-4.7702)	(3.4337)	(2.7106)	(-5.1076)	(3.8403)	(2.4839)	(-4.7203)
RPTLENDING	-0.1681 ***	0.1023	-0.0944				-0.1587 ***	0.0767	-0.1090
	(-3.0450)	(0.9117)	(-0.1465)				(-2.8495)	(0.6899)	(-0.1579)
RPTLIABILITIES				0.0718 **	0.0864 *	0.5462	0.0622 *	0.0864 *	0.6074
				(2.1423)	(1.8514)	(0.9035)	(1.8538)	(1.8388)	(1.0199)
BOCCOM	0.0129	0.0453 ***	0.3279 **	0.0476 ***	0.0473 ***	0.3265 **	0.0276 **	0.0486 ***	0.4526
	(1.1924)	(3.5833)	(2.4024)	(4.9908)	(3.9936)	(2.1042)	(2.2928)	(3.5632)	(2.6132)
RPTLENDING*BOCCOM	0.3079 ***	-0.0078	-2.4496 **				0.2641 ***	0.0183	-2.6370 *
	(3.1383)	(-0.0469)	(-2.0090)				(2.6871)	(0.1115)	(-1.9552)
RPTLIABILITIES*BOCCOM				-0.2160 **	-0.0811	-1.4135	-0.1726 **	-0.0923	-1.3537
				(-2.5644)	(-0.6834)	(-0.8307)	(-2.0798)	(-0.7720)	(-0.8210)
FSIZE	-0.0046 **	-0.0074 *	0.2433 ***	-0.0022	-0.0074 *	0.2689 ***	-0.0032	-0.0069 *	0.2536 ***
	(-2.2411)	(-1.6707)	(6.2937)	(-1.0271)	(-1.8144)	(6.5569)	(-1.4135)	(-1.6481)	(6.1858)
LEVERAGE	-0.1031 ***	-0.0507 ***	0.2773 **	-0.1100 ***	-0.0716 ***	0.1550	-0.1124 ***	-0.0701 ***	0.1330
	(-8.1473)	(-3.6247)	(2.1124)	(-8.2680)	(-5.2874)	(1.0772)	(-8.1651)	(-5.0799)	(0.9035)
GROWTH	0.0252 ***	0.0154 ***	0.1109 ***	0.0235 ***	0.0151 ***	0.1073 ***	0.0253 ***	0.0154 ***	0.1050 ***
	(5.6108)	(3.6951)	(2.9207)	(5.4165)	(3.6458)	(2.7431)	(5.6520)	(3.6704)	(2.6823)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9300	0.8108	0.7706	0.9296	0.8113	0.7660	0.9291	0.8112	0.7625
Adjusted R-squared	0.9175	0.7768	0.7294	0.9170	0.7774	0.7240	0.9161	0.7765	0.7189
F-statistic	73.9874	23.8560	18.6977	73.5050	23.9349	18.2238	71.2268	23.3604	17.4556
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

Model 12 and Model 14 (Table 7.7 Panel A.3 columns 2 and 8), and Model 24 and Model 26 (Table 7.7 Panel B.1 columns 2 and 8), respectively. The effects of RPTSALES are still significant positive on firm performance measured with ROA in all those models. When RPTSALES are interacted with committees established in the BOC (BOCCOM), their interaction effects are significant positive at the 5% level on firm performance measured with ROA, but the effects of RPTSALES are insignificant as seen in Model 30 and Model 32 (Table 7.7 Panel C.1 columns 2 and 8).

The interaction effects between size of the BOD (BODSIZE) and RPTPURCHASES are significant positive at the 5% level on firm performance measured with short-term performance (ROA) as shown by Model 7 and Model 8 (Table 7.7 Panel A.1 columns 5 and 8). They are insignificant on firm performance measured with the other short-term performance (CFO) and long-term performance (Tobin's Q). The interaction effects of RPTPURCHASES and BODSIZE reverse the effects of RPTPURCHASES on firm performance measured with ROA. The effects of RPTPURCHASES on firm performance measured with ROA, which are significant positive while controlling the characteristics of corporate governance, become significant negative on firm performance measured with ROA when the interaction effects are introduced. Similar results are observed when RPTPURCHASES are interacted with size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), independence of the BOC (INDBOC), and committees established in the BOC (BOCCOM). The significances are at the 1% level as shown by Model 10 and Model 11 (Table 7.7 Panel A.2 columns 5 and 8), Model 13 and Model 14 (Table 7.7 Panel A.3 columns 5 and 8), Model 25 and Model 26 (Table 7.7 Panel B.1 columns 5 and 8), and Model 31 and Model 32 (Table 7.7 Panel C.1 columns 5 and 8), respectively.

Thus, the size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), and independence of the BOC (INDBOC) moderate and weaken the relationship between RPTSALES and firm performance measured with ROA and Tobin's Q. There is no evidence for the moderating role of committees established on the BOC (BOCCOM) on the relationship between RPTSALES and firm performance. In addition, size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), independence of the BOC (INDBOC), and committees established in the BOC (BOCCOM) reverse the effects of RPTPURCHASES on firm performance measured with ROA, and they also weaken the relationship between RPTPURCHASES and firm performance measured with ROA.

With regards to the moderating roles of characteristics of corporate governance on the relationship between RPTs lending (RPTLENDING) and firm performance measured with long-term performance (Tobin's Q), only size of the BOD (BODSIZE) and independence of the BOC (INDBOC) moderate the relationship between RPTs lending and Tobin's Q as shown in Table 7.7

Panel A.4 and Table 7.7 Panel B.2, repectively. In addition, the role of independence of the BOC is stronger since it reverses the effects of RPTLENDING on long-term firm performance measured with Tobin's Q, which changes from significant negative while controlling the characteristics of corporate governance to become significant positive at the 1% level as seen in Model 27 and Model 29 (Table 7.7 Panel B.2 columns 4 and 10). The size of the BOD (BODSIZE) and independence of the BOC (INDBOC) weaken the relationship between RPTLENDING and firm performance measured with Tobin's Q. There is no evidence that the relationship between RPTLENDING and firm performance measured with Tobin's Q is moderated by size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), and committee established on the BOC (BOCCOM).

The moderating roles of characteristics of corporate governance on the relationship between RPTs liabilities (RPTLIABILITIES) and firm performance measured with CFO are only found in the size of the BOD (BODSIZE), size of the BOC (BOCSIZE) and total size of the BOD and BOC (BOARDSIZE) as shown by Model 16 and Model 17 (Table 7.7 Panel A.4 columns 6 and 9), Model 19 and Model 20 (Table 7.7 Panel A.5 columns 6 and 9, and Model 22 and Model 23 (Table 7.7 Panel A.6 columns 6 and 9), respectively. There is no evidence for the role of independence of the BOC (INDBOC) and committees established in the BOC (BOCCOM) to the relationship between RPTLIABILITIES and firm performance measured with CFO.

This study finds that the relationship between RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) is moderated by the characteristics of corporate governance. Stronger evidence is found in the relationship between RPTs sales and ROA, and relationship between RPTs purchases and ROA, because all characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) moderate and weaken that relationships. The moderating role of characteristics of corporate governance is partially seen on the relationships between RPTs lending and Tobin's Q, and relationship between RPTs liabilities and CFO. Therefore, this study accepts Hypothesis 4b.

In accordance with management theory and agency theory, the characteristics of corporate governance in the forms of the size of BOD, the size of BOC, the total size of BOD and BOC (or the size of the firm's board), the independence of the BOC, and the number of committees in the BOC are effective to reduce the effect of RPTs based on the nature of relationship (RPTs sales, RPTs purchases, RPTs lending, and RPTs liabilities) on firm performance. The relationship between RPTs based on the nature of the transaction and firm performance, especially RPTs sales and ROA and RPTs purchases and ROA, are moderated by characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of

BOC, and committees established in the BOC). Size of BOD weakens these relationships. It means that more directors decrease the effects of RPTs on firm performance. The size of the BOD influences the BOD in carrying out their duties, such as firm management, risk management, internal control, communication and social responsibilities. Size of BOD should be adjusted with the firm complexity with regard to the effectiveness of decision making (National Committee on Governance 2006). Based on the results in Chapter 6 and Chapter 7 Section 7.2, the size of BOD has positive relationship with firm performance, suggesting that firms with larger size of BOD have better firm performance. The greater number of directors allows for each director to manage the specific area related to his or her capability. This focus on his or her specialist area enables them to achieve the firm objectives through the functions of planning, organising, leading and controlling (Bartol et al. 2011). Larger size of the BOD enables the BOD to monitor the RPTs and communicate them to the firm's stakeholders. Having more directors could also influence the extent of RPTs through their decisional roles, including how to allocate the firm's resources and whom to work with. More directors also ensures that decisions related to RPTs are not in the hands of only one director. The BOD can play its role as management function in the forms of controlling, i.e. regulating the firm's activities related to the RPTs based on the nature of transactions (RPTs sales, RPTs purchases, RPTs lending, and RPTs liabilities) to ensure that the firm performance conforms to its objectives. The function of BOD in controlling also could minimise the agency problem by reducing the effects of RPTs based on the nature of transactions (RPTs sales, RPTs purchases, RPTs lending, and RPTs liabilities) if those RPTs are used to obtain personal benefit by the managers.

In addition, the BOC represented by the size of BOC, the independence of BOC, and the number of committees in the BOC also has a role in influencing the effect of RPTs based on the nature of transactions (RPTs sales, RPTs purchases, RPTs lending, and RPTs liabilities). Thus, the role of the BOC works in supervising and advising the BOD on the misuse of the firm's resources through RPTs based on the nature of transactions (RPTs sales, RPTs purchases, RPTs lending, and RPTs liabilities) and in monitoring the effectiveness of corporate governance practices. The size of the BOC weakens the relationships between RPTs sales and ROA and between RPTs purchases and ROA. Size of the BOC may influence the functions of the BOC, which include the supervisory and advisory functions to the BOD. More commissioners would result in the better supervisory and advisory functions of BOC and could reduce the effects of RPTs on firm performance. Total size of the BOD and BOC also moderates and weakens those relationships, implying that the monitoring role of BOD together with BOC effectively decrease the effects of RPTs on firm performance.

With regards to independence of the BOC, the relationships between RPTs sales and ROA and between RPTs purchases and ROA, are moderated by independence of the BOC. Independence of the BOC weakens those relationships. Independence of the BOC is reflected by the

independent commissioner in the BOC. The independence of BOC appears since he or she does not affiliate with the main shareholders, members of the BOD, and/or other member of the BOC. Moreover, in accordance with CMFISA regulation number 643/2012, the independent commissioner is also not a person who works or has authority and responsibility to plan, lead, control, or supervise the firm in the last six months; has no direct or indirect ownership in the firm and has no direct or indirect business relationship with the firm. Therefore, the independent commissioner can undertake their supervisory and advisory duties fairly without any influence from another party and in the best interests of the firm without any conflict of interest. Thus, it could reduce the effects of RPTs on firm performance.

A similar role is also seen in committees established in the BOC. Committees in the BOC are established to support the BOC in undertaking the supervisory and advisory duties. Committees established in the BOC are responsible to the BOC. One or more members of the committees are the commissioner of the BOC. The purpose of this requirement is to ensure that the committees link with the BOC and work in accordance with the interest of the BOC. One of the committees in the BOC that must be established in Indonesia listed firms is audit committee. Other committees can be established depending on the need of the BOC, such as compensation/remuneration committee, nomination committee, corporate governance committee, risk management committee, or a combination of those committees. The committees established in the BOC could include membership of professionals from outside the firm when needed. It is expected that the committees in the BOC will enable the BOC to provide better supervisory and advisory functions, including supervision and advice related to RPTs. The finding that committees established in the BOC weaken the relationship between RPTPURCHASES and firm performance measured with ROA suggests that the committees established in the BOC can assist the BOC, which results in reducing the effects of RPTs on firm performance.

These findings are consistent with Black et al. (2015) and Chauhan, Lakshmi and Dey (2016) that corporate governance moderates the effects of RPTs.

7.5.3 Interaction Effects of RPTs Based on the Status of Related Party (RPTs Person and RPTs Entity) and the Characteristics of Corporate Governance on Firm Performance

As stated in Section 7.4.3, this study finds that the RPTs based on the status of related party: RPTs person (RPTPERSON) and RPTs entity (RPTENTITY) have significant positive effects on firm performance measured with long-term performance (Tobin's Q) and short-term performance (ROA), respectively, while controlling the characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC). This study examines whether the relationship of RPTs based on the status of related party (RPTPERSON and RPTENTITY) and firm performance measured with long-

term performance (Tobin's Q) and short-term performance (ROA), respectively, is moderated by the characteristics of corporate governance such as size of the BOD (BODSIZE), size of the BOC (BOCSIZE), total size of the BOD and BOC (BOARDSIZE), independence of the BOC (INDBOC), and committees established in the BOC (BOCCOM).

The results of regression (Table 7.8) show that characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) do not moderate the relationship between RPTs based on the status of related party and firm performance (RPTs person and Tobin's Q, and the relationship between RPTs entity and ROA), with the exception for total size of the BOD and BOC (BOARDSIZE), which moderates and weakens the relationship between RPTs entity and short-term performance measured with ROA. The interaction effects between RPTs person and characteristics of corporate governance are found to be insignificant: RPTPERSON*BODSIZE as shown by Model 36 and Model 37 (Table 7.8 Panel A.1 columns 4 and 10), RPTPERSON*BOCSIZE as shown by Model 39 and Model 41 (Table 7.8 Panel A.2 columns 4 and 10), RPTPERSON*BOARDSIZE as shown by Model 42 and Model 44 (Table 7.8 Panel A.3 columns 4 and 10), RPTPERSON*INDBOC as shown by Model 45 and Model 47 (Table 7.8 Panel B columns 4 and 10), RPTPERSON*BOCCOM as shown by Model 48 and Model 50 (Table 7.8 Panel C column 4 and 10). Similar results are found in the interaction between characteristics of corporate governance and RPTs entity, except for interaction effects between total size of the BOD and BOC and RPTs entity (RPTENTITY*BOARDSIZE), which are found to be significant negative at the 10% and 5% levels on firm performance measured with ROA as shown by Model 43 and Model 44 (Table 7.8 Panel A.3 columns 5 and 8), respectively. The effects of RPTENTITY on firm performance measured with short-term performance (ROA) also remain significant positive in those models.

The results of this study partially support Hypothesis 4c that the relationship between RPTs based on the status of related party (RPTs person and RPTs entity) and firm performance is moderated by the characteristics of corporate governance. This study cannot find evidence to support that the relationship between RPTs person (RPTPERSON) and firm performance measured with long-term performance (Tobin's Q) is moderated by the characteristics of corporate governance (size of the BOC, size of the BOD, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) except for total size of BOD and BOC. The relationship between RPTs entity (RPTENTITY) and firm performance measured with short-term performance (ROA) is moderated and weakened by total size of the BOD and BOC (BOARDSIZE). There is no evidence that the other characteristics of corporate governance, such as: size of the BOD, size of the BOC, independence of the BOC, and committees established in the BOC, moderate the relationship between RPTs entity and firm performance measured with short-term performance (ROA).

The results show that BOD and BOC together (i.e. the total size of BOD and BOC) have an impact on the relationship of RPTs based on the status of relationship in the form of RPTs entity and firm performance by moderating and weakening that relationship. This result is inline with the management theory. The controlling function is the responsibility of the BOD while the supervisory and advisory functions are the responsibility of the BOC. The size of the BOD and BOC influences the performance of BOD and BOC, which results in better controlling, supervisory and advisory functions, especially related to the RPTs entity. Greater number of BOD could have a better function in managing the RPTs with an entity status. The BOD could choose to be involved in RPTs with entity status rather than with person status. Reasons of availability and convenience may justify why the BOD prefer to conduct RPTs with an entity. Most of the business actors are in the form of a firm, not an individual. Then, a party with an entity status is more available than a party with an individual or person status. It is easier for the firm to have a transaction with other party that has entity status compared to individual or person status. The larger size of BOD and BOC will provide for better monitoring role of the BOD and BOC, which in turn will effectively decrease the effects of RPTs entity on firm performance.

7.5.4 Interaction Effects of RPTs Entity Based on the Nature of the Relationship (RPTs Shareholders, RPTs Associates and Joint Firms and RPTs Other Affiliates) and the Characteristics of Corporate Governance on Firm Performance

As presented in Section 7.4.4, this study finds that the effects of RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) on firm performance (ROA and CFO) are significant positive or significant negative while controlling the characteristics of corporate governance. The effects of RPTs shareholders (RPTENTITY_SH) are significant positive on firm performance measured with CFO while controlling the characteristics of corporate governance, but are significant negative on firm performance measured with ROA. The effects of RPTs associates and joint firms (RPTENTITY_ASSC) and RPTs other affiliates are significant positive on firm performance measured with ROA while controlling the corporate governance characteristics, respectively. This study further examines whether those relationships are moderated by the characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC).

Table 7.8 Interaction Effects of RPTs Based on the Status of Related Party (RPTs Person and RPTs Entity) and Characteristics of Corporate Governance on Firm Perfomance

Panel A.1. Interaction Effects of RPTPERSON, RPTENTITY and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 36			Model 37			Model 38		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1272 *	0.3073 **	-8.1588 ***	0.1032	0.3347 **	-6.9363 ***	0.0986	0.3280 **	-8.1592 ***
	(1.7650)	(2.1335)	(-7.1364)	(1.4914)	(2.3813)	(-6.2724)	(1.4168)	(2.3101)	(-7.1285)
RPTPERSON	0.1637	0.3129	-2.6896				0.1986	0.2485	-1.7843
	(0.7250)	(0.5298)	(-0.5036)				(0.9320)	(0.4216)	(-0.3342)
RPTENTITY				0.0345	0.0846 *	-0.7322 **	0.0359	0.0853 *	-0.4257
				(1.5694)	(1.8218)	(-2.3376)	(1.6176)	(1.8082)	(-1.5112)
BODSIZE	0.0483 ***	0.0008	0.3177 ***	0.0489 ***	0.0132	0.2064 **	0.0504 ***	0.0141	0.2143 **
	(8.5595)	(0.0645)	(3.5349)	(7.2076)	(0.9559)	(2.0073)	(7.3122)	(1.0165)	(2.0784)
RPTPERSON*BODSIZE	-0.1710	-0.2970	4.8790				-0.2018	-0.2233	3.9746
	(-0.8014)	(-0.5528)	(1.0396)				(-1.0037)	(-0.4159)	(0.8448)
RPTENTITY*BODSIZE				-0.0092	-0.0518 *	0.4910 **	-0.0102	-0.0520 *	0.2987 *
				(-0.7276)	(-1.9206)	(2.5828)	(-0.8036)	(-1.9019)	(1.7126)
FSIZE	-0.0015	-0.0068	0.3372 ***	-0.0009	-0.0084 *	0.2924 ***	-0.0008	-0.0082	0.3416 ***
	(-0.6014)	(-1.3327)	(8.3688)	(-0.3956)	(-1.6763)	(7.4965)	(-0.3521)	(-1.6201)	(8.4519)
LEVERAGE	-0.0953 ***	-0.0456 ***	-0.1558	-0.0928 ***	-0.0483 ***	0.3407 ***	-0.0927 ***	-0.0494 ***	-0.1130
	(-7.6083)	(-3.0710)	(-1.0562)	(-7.7772)	(-3.5401)	(2.6993)	(-7.4344)	(-3.5124)	(-0.7740)
GROWTH	0.0183 ***	0.0145 ***	0.0836 **	0.0179 ***	0.0139 ***	0.0803 **	0.0178 ***	0.0139 ***	0.0838 **
	(4.2718)	(3.8413)	(2.1229)	(4.3209)	(3.8913)	(2.0824)	(4.2456)	(3.8861)	(2.1309)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9370	0.8075	0.7500	0.9381	0.8049	0.7707	0.9381	0.8045	0.7550
Adjusted R-squared	0.9259	0.7733	0.7056	0.9272	0.7703	0.7301	0.9269	0.7689	0.7105
F-statistic	83.8884	23.6434	16.9066	85.4731	23.2521	18.9483	83.4708	22.6485	16.9648
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.8 contd.

Panel A.2. Interaction Effects of RPTPERSON, RPTENTITY and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 39			Model 40			Model 41		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1638 **	0.3529 **	-8.5284 ***	0.1210 *	0.3446 **	-6.3583 ***	0.1020	0.3576 **	-8.4619 ***
	(2.1750)	(2.4479)	(-7.7299)	(1.7181)	(2.3687)	(-5.8484)	(1.2766)	(2.4349)	(-7.5249)
RPTPERSON	-0.8886 ***	-0.4348	-2.9395				-0.9895 ***	-0.4392	-3.8710
	(-2.9156)	(-0.7188)	(-0.4940)				(-4.9223)	(-0.7308)	(-0.6491)
RPTENTITY				0.0222	0.0038	-1.0110 **	0.0585 *	-0.0001	-0.2245
				(0.6718)	(0.0768)	(-2.5470)	(1.7846)	(-0.0014)	(-0.6875)
BOCSIZE	-0.0141 *	-0.0293 **	0.1937 **	-0.0092	-0.0252	0.0429	-0.0089	-0.0277 *	0.1363
	(-1.7863)	(-2.0129)	(2.1687)	(-1.0336)	(-1.5521)	(0.6241)	(-0.9650)	(-1.6817)	(1.3766)
RPTPERSON*BOCSIZE	0.5657 ***	0.2734	3.9578				0.6236 ***	0.2767	4.4668
	(2.8643)	(0.7025)	(1.0039)				(4.8416)	(0.7162)	(1.1343)
RPTENTITY*BOCSIZE				-0.0028	-0.0028	0.6110 **	-0.0240	-0.0007	0.1413
				(-0.1428)	(-0.0962)	(2.5480)	(-1.2176)	(-0.0221)	(0.6998)
FSIZE	0.0008	-0.0068	0.3594 ***	0.0016	-0.0067	0.2812 ***	0.0022	-0.0070	0.3592 ***
	(0.2946)	(-1.3772)	(9.2468)	(0.6989)	(-1.3562)	(7.4975)	(0.8462)	(-1.4117)	(9.1557)
LEVERAGE	-0.0972 ***	-0.0431 ***	-0.2433 *	-0.0894 ***	-0.0455 ***	0.4360 ***	-0.0873 ***	-0.0440 ***	-0.1819
	(-7.7981)	(-2.8839)	(-1.6863)	(-7.5907)	(-3.1271)	(4.2349)	(-7.3827)	(-2.9255)	(-1.2768)
GROWTH	0.0203 ***	0.0151 ***	0.0982 **	0.0191 ***	0.0151 ***	0.1052 ***	0.0206 ***	0.0151 ***	0.0967 **
	(4.5872)	(3.8140)	(2.4777)	(4.5047)	(3.8566)	(2.8568)	(4.7216)	(3.8476)	(2.4562)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9225	0.8053	0.7459	0.9287	0.8045	0.8533	0.9263	0.8047	0.7527
Adjusted R-squared	0.9088	0.7707	0.7008	0.9160	0.7698	0.8273	0.9129	0.7692	0.7078
F-statistic	67.1352	23.3114	16.5458	73.3866	23.1952	32.7927	69.1855	22.6798	16.7594
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.8 contd.

Panel A.3. Interaction Effects of RPTPERSON, RPTENTITY and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 42			Model 43			Model 44		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1298 (1.5888)	0.3330 ** (2.2811)	-8.3359 *** (-7.4856)	0.0895 (1.1966)	0.3129 ** (2.1791)	-7.0456 *** (-6.2072)	0.0677 (0.8035)	0.3217 ** (2.2066)	-8.2546 *** (-7.2602)
RPTPERSON	-1.2287 ** (-2.0557)	-0.2645 (-0.2544)	-13.2406 (-1.1175)				-1.4242 *** (-2.8811)	-0.2578 (-0.2578)	-12.6419 (-1.0735)
RPTENTITY				0.0904 ** (2.0526)	0.0648 (0.8029)	-1.1207 * (-1.8026)	0.1107 ** (2.4240)	0.0649 (0.7873)	-0.3249 (-0.6086)
BOARDSIZE	0.0222 ** (2.1730)	-0.0213 (-1.1334)	0.4855 *** (4.2125)	0.0397 *** (3.2157)	-0.0070 (-0.3314)	0.3563 *** (2.6617)	0.0344 *** (2.7185)	-0.0077 (-0.3581)	0.4150 *** (2.9957)
RPTPERSON*BOARDSIZE	0.5928 ** (2.0217)	0.1258 (0.2471)	7.9084 (1.3613)				0.6873 *** (2.8446)	0.1268 (0.2593)	7.5768 (1.3123)
RPTENTITY*BOARDSIZE				-0.0317 * (-1.7048)	-0.0277 (-0.8169)	0.4906 * (1.8181)	-0.0403 ** (-2.0800)	-0.0278 (-0.8033)	0.1517 (0.6460)
FSIZE	-0.0006 (-0.2255)	-0.0060 (-1.1609)	0.3240 *** (8.3696)	-0.0009 (-0.3483)	-0.0064 (-1.2587)	0.2780 *** (7.4376)	0.0003 (0.1141)	-0.0066 (-1.2905)	0.3261 *** (8.3672)
LEVERAGE	-0.0976 *** (-7.7670)	-0.0455 *** (-2.9680)	-0.2379 (-1.5991)	-0.0919 *** (-7.6256)	-0.0468 *** (-3.2320)	0.4494 *** (3.9055)	-0.0923 *** (-7.3964)	-0.0487 *** (-3.2577)	-0.2135 (-1.4368)
GROWTH	0.0202 *** (4.6569)	0.0154 *** 3.7096	0.0954 ** (2.3626)	0.0194 *** (4.6404)	0.0149 *** (3.8263)	0.0834 ** (2.1562)	0.0200 *** (4.6930)	0.0150 *** (3.8222)	0.0957 ** (2.3729)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9262	0.8019	0.7406	0.9335	0.8015	0.7927	0.9286	0.8012	0.7430
Adjusted R-squared	0.9131	0.7668	0.6946	0.9216	0.7663	0.7559	0.9156	0.7651	0.6963
F-statistic	70.7105	22.8176	16.0962	79.0627	22.7623	21.5544	71.5934	22.1847	15.9132
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.8 contd.

Panel B. Interaction Effects of RPTPERSON, RPTENTITY and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 45			Model 46			Model 47		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2518 ***	0.2621 *	-7.4227 ***	0.1733 ***	0.2632 *	-6.1252 ***	0.1889 ***	0.2643 *	-7.1490 ***
	(4.1303)	(1.8330)	(-6.4279)	(2.8509)	(1.8345)	(-5.1874)	(3.0682)	(1.8326)	(-6.2281)
RPTPERSON	-0.3839 **	0.0063	0.0332				-0.3738 **	0.0071	0.0807
	(-2.1855)	(0.0210)	(0.0089)				(-2.4487)	(0.0237)	(0.0218)
RPTENTITY				0.0391 **	0.0067	0.8954 ***	0.0387 **	0.0062	0.9494 ***
				(2.1869)	(0.1989)	(3.4491)	(2.1649)	(0.1846)	(3.7267)
INDBOC	0.1028 ***	0.0561 *	0.6287 **	0.1126 ***	0.0583 *	1.1311 ***	0.1013 ***	0.0581 *	1.1762 ***
	(5.7026)	(1.7510)	(2.3028)	(5.2319)	(1.7102)	(3.8684)	(4.6470)	(1.6828)	(3.8165)
RPTPERSON*INDBOC	0.9751 **	-0.0502	8.0152				0.9521 **	-0.0518	7.8848
	(2.0413)	(-0.0634)	(0.8010)				(2.3046)	(-0.0651)	(0.7951)
RPTENTITY*INDBOC				-0.0490	-0.0111	-2.5985 ***	-0.0493	-0.0108	-2.5640 ***
				(-1.1552)	(-0.1628)	(-4.1706)	(-1.1638)	(-0.1576)	(-4.1530)
FSIZE	-0.0046 **	-0.0060	0.3214 ***	-0.0024	-0.0061	0.2613 ***	-0.0027	-0.0062	0.3051 ***
	(-2.2315)	(-1.2219)	(7.9327)	(-1.1170)	(-1.2210)	(6.4087)	(-1.2800)	(-1.2307)	(7.5997)
LEVERAGE	-0.0916 ***	-0.0433 ***	-0.2006	-0.0860 ***	-0.0465 ***	0.3529 ***	-0.0858 ***	-0.0434 ***	-0.2284
	(-7.6374)	(-2.7458)	(-1.3361)	(-7.7700)	(-3.0262)	(2.7391)	(-7.3763)	(-2.7345)	(-1.5247)
GROWTH	0.0199 ***	0.0145 ***	0.1183 ***	0.0181 ***	0.0145 ***	0.1222 ***	0.0187 ***	0.0145 ***	0.1235 ***
	(4.7523)	(3.7371)	(3.0505)	(4.5200)	(3.7546)	(3.3095)	(4.6206)	(3.7118)	(3.2531)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9262	0.8107	0.7352	0.9306	0.8102	0.7213	0.9276	0.8103	0.7332
Adjusted R-squared	0.9131	0.7771	0.6882	0.9183	0.7765	0.6719	0.9144	0.7758	0.6847
F-statistic	70.7595	24.1366	15.6488	75.6054	24.0542	14.5878	70.5167	23.5100	15.1244
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.8 contd.

Panel C. Interaction Effects of RPTPERSON, RPTENTITY and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 48			Model 49			Model 50		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2594 ***	0.3464 ***	-8.1826 ***	0.1895 ***	0.3293 ***	-5.6306 ***	0.2091 ***	0.3437 ***	-8.2039 ***
	(4.3391)	(2.7778)	(-7.3549)	(2.9944)	(2.6217)	(-5.0404)	(3.3899)	(2.7206)	(-7.3461)
RPTPERSON	0.2679	0.5595 *	3.0887				0.3029 *	0.5368 *	3.0966
	(1.4395)	(1.8879)	(1.0261)				(1.8205)	(1.7792)	(1.0409)
RPTENTITY				0.0213 ***	0.0088	-0.1196	0.0213 ***	0.0083	-0.0075
				(2.8272)	(0.6638)	(-1.0982)	(2.7352)	(0.6249)	(-0.0712)
BOCCOM	0.0351 ***	0.0507 ***	0.2537 **	0.0336 ***	0.0546 ***	0.2115	0.0368 ***	0.0608 ***	0.3003 **
	(3.7272)	(4.5539)	(2.1070)	(3.2847)	(4.5479)	(1.4246)	(3.4108)	(4.9145)	(2.0804)
RPTPERSON*BOCCOM	-1.3491	-2.6603 *	-1.1667				-1.5275 **	-2.5494 *	-1.3051
	(-1.5783)	(-1.9578)	(-0.0933)				(-1.9882)	(-1.8436)	(-0.1055)
RPTENTITY*BOCCOM				-0.0040	-0.0273	0.0517	-0.0067	-0.0243	-0.0365
				(-0.3646)	(-1.5716)	(0.3344)	(-0.5591)	(-1.3995)	(-0.2351)
FSIZE	-0.0037 *	-0.0086 **	0.3490 ***	-0.0015	-0.0081 *	0.2583 ***	-0.0023	-0.0087 **	0.3492 ***
	(-1.8205)	(-1.9881)	(8.7161)	(-0.7042)	(-1.8511)	(6.5665)	(-1.0752)	(-1.9691)	(8.7004)
LEVERAGE	-0.0994 ***	-0.0501 ***	0.0595	-0.0977 ***	-0.0522 ***	0.2882 **	-0.0945 ***	-0.0502 ***	0.0665
	(-7.7839)	(-3.5783)	(0.5209)	(-8.0545)	(-3.7871)	(2.2013)	(-7.5268)	(-3.5744)	(0.5874)
GROWTH	0.0241 ***	0.0151 ***	0.0804 **	0.0220 ***	0.0149 ***	0.1175 ***	0.0231 ***	0.0150 ***	0.0794 ***
	(5.4943)	(3.7049)	(2.1546)	(5.1907)	(3.5403)	(3.0604)	(5.3691)	(3.5520)	(2.1372)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9290	0.8134	0.8535	0.9310	0.8106	0.7694	0.9304	0.8130	0.8630
Adjusted R-squared	0.9163	0.7799	0.8272	0.9186	0.7765	0.7280	0.9176	0.7786	0.8378
F-statistic	72.8601	24.2644	32.4225	75.0510	23.8164	18.5735	72.6831	23.6364	34.2372
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

Several characteristics of corporate governance are found to moderate the relationship between sub-categories of RPTs entity based on the nature of relationship with different effects. Size of BOD and total size of the BOD and BOC moderate and weaken the relationship between RPTs shareholders (RPTENTITY_SH) and CFO, while committees established in the BOC moderate and strengthen the relationship between RPTs shareholders (RPTENTITY_SH) and ROA. The interaction effects between RPTENTITY_SH and BODSIZE are significant negative at the 10% level on firm performance measured with CFO as shown by Model 51 (Table 7.9 Panel A.1 column 3). The interaction effects between RPTENTITY_SH and size of the BOD (RPTENTITY_SH*BODSIZE) are significant negative at the 10% level on firm performance measured with CFO as shown by Model 51 (Table 7.9. Panel A.1 column 3). The effect of RPTENTITY_SH is significant positive at the 5% level with CFO in that model.

Similar results are observed when RPTENTITY_SH is interacted with total size of the BOD and BOC (RPTENTITY_SH*BOARDSIZE). The interaction effect between RPTENTITY_SH and committees established in the BOC (RPTENTITY_SH*BOCCOM) are significant negative at the 1% level on firm performance measured with ROA as shown by Model 67 (Table 7.9 Panel C column 2). The effect of RPTENTITY_SH remains significant negative at the 10% level on firm performance measured with ROA in that model.

In addition, only size of the BOD and total size of the BOD and BOC moderate and weaken the relationship between RPTs associates and joint firms and firm performance measured with ROA. The interaction effects between RPTs associates and joint firms and size of the BOD (RPTENTITY_ASSC*BODSIZE) are significant negative at the 10% level on firm performance measured with ROA as shown by Model 52 and Model 54 (Table 7.9 Panel A.1 columns 5 and 11). The effects of RPTENTITY_ASSC remain significant positive at the 5% level on firm performance measured with ROA in those models. Similar results are found when RPTENTITY_ASSC is interacted with total size of the BOD and BOC (BOARDSIZE) as shown by Model 60 and Model 62 (Table 7.9 Panel A.3 columns 5 and 11). There is no evidence for the moderating role of other characteristics of corporate governance (size of BOC, independence of the BOC, and committees established in the BOC) on the relationship between RPTs associates and joint firms and firm performance measured with ROA. Independence of the BOC is found to moderate and weaken the relationship between RPTs other affiliates and firm performance measured with ROA. The interaction effects between RPTENTITY_OAFF and independence of the BOC (INDBOC) are significant negative at the 5% and 10% levels on firm performance measured with ROA as shown by Model 65 and Model 66 (Table 7.9 Panel B column 8 and 11). The effects of RPTENTITY_OAFF also remains positive on firm performance measured with ROA in those models.

This study finds evidence that partially supports Hypothesis 4d. Only several characteristics of corporate governance are found to moderate the relationship between RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and firm performance: size of the BOD and total size of the BOD and BOC moderate and weaken the relationship between RPTs shareholders and CFO, committees established in the BOC moderates and strengthens the relationship between RPTs shareholders and ROA, size of the BOD and total size of the BOD and BOC moderate and weaken the relationship between RPTs associates and joint firms, and independence of the BOC moderates and weakens the relationship between RPTs other affiliates and ROA. The findings are consistent with the findings of Black et al. (2015) and Chauhan, Lakshmi and Dey (2016) that corporate governance moderates the effects of RPTs.

In line with management theory and agency theory, the characteristics of corporate governance in the forms of the size of BOD and the total size of BOD and BOC (or the size of the firm's board), independence of the BOC, and the number of committees in the BOC are effective to decrease the effect of RPTs entity based on the nature of relationship (RPTs shareholders, RPTs associates, and RPTs other affiliates). Size of the BOD and total size of the BOD and BOC moderate and weaken the relationship between RPTs shareholders and CFO. Majority transactions in the sample firms with shareholders are in the forms of liabilities from the shareholders that result in the higher cash flow from operations. It seems that the function of BOD and BOC operationalise in reducing the effects of RPTs shareholders on firm performance measured with CFO. Larger size of BOD and total size of the BOD and BOC could increase the management function of BOD and the supervisory and advisory functions of the BOC, particularly in RPTs with shareholders. Increasing the size of BOD and total size of BOD and BOC will improve the governance in the form of monitoring on the firm operations. However, increase of the size of BOD and the total size of BOD and BOC will decrease the cash flow from operation due to the increase of the total expenses in terms of salary and benefits for the BOD and BOC. These expenses are the monitoring cost in agency theory to assure that the agent manages the firm in line with the shareholders' interest.

A similar result is seen in the role of size of BOD and total size of the BOD and BOC to the relationship of RPTs associates and firm performance measured with ROA and independence of the BOC on the relationship of RPTs other affiliates and ROA. The interaction of size of BOD and total size of the BOD and BOC moderate and weaken that relationship. Larger size of BOD and larger size of BOD and BOC will increase the management function of BOD and the supervisory and advisory functions of BOC but at the same time they will also increase expenses in the forms of salary and benefits for the BOD and BOC. These expenses will decrease the firm performance measured with ROA. Under agency theory view, these expenses serve as monitoring cost for the shareholders' interest. In addition, the independence of BOC provides better supervisory and advisory functions to the BOD since he or she does not affiliate with any parties and should have

an accounting and/or finance background to support him/her to perform his/her function. In the end this better performance could moderate the effect of relationship between RPTs , i.e. RPTs other affiliates, and ROA.

Meanwhile, the interactions of committees established in the BOC and RPTs shareholders influence the relationship of RPTs shareholders and ROA by moderating and strengthening those relationships. Characteristic of corporate governance in the form of committees established in the BOC seems to have impact on the supervisory and advisory functions of BOC. Committees established in the BOC assist BOC to perform better supervisory and advisory functions, including in supervisory and advisory the RPTs with shareholders, which result in better firm performance.

Table 7.9 Interaction Effects of RPTs Entity Based on the Nature of the Relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and Characteristics of Corporate Governance on Firm Perfomance

Panel A.1. Interaction Effects of RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BODSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 51			Model 52			Model 53			Model 54		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1381 * (1.8788)	0.2710 ** (1.9738)	-6.9144 *** (-6.0237)	0.1285 * (1.8357)	0.3195 ** (2.2294)	-7.3411 *** (-6.5732)	0.1081 (1.5147)	0.3475 ** (2.4520)	-6.9192 *** (-6.2815)	0.1030 (1.4005)	0.2955 ** (2.1419)	-6.5163 *** (-5.7137)
RPTENTITY_SH	-0.0138 (-0.2803)	0.2913 ** (2.2110)	-0.8657 (-1.1170)							-0.0033 (-0.0686)	0.2518 * (1.8483)	-0.7953 (-1.0737)
RPTENTITY_ASSC				0.3165 ** (2.3510)	0.0974 (0.4445)	0.1383 (0.1683)				0.3142 ** (2.3488)	0.1101 (0.5283)	-0.0234 (-0.0265)
RPTENTITY_OAFF							0.0250 (0.8467)	0.0854 (1.6126)	-0.9123 ** (-2.3317)	0.0273 (0.9128)	0.0776 (1.4537)	-0.8695 ** (-1.9918)
BODSIZE	0.0462 *** (7.9622)	0.0020 (0.1601)	0.3455 *** (3.4560)	0.0427 *** (7.2743)	0.0002 (0.0120)	0.3279 *** (3.3171)	0.0465 *** (6.4670)	0.0132 (0.9663)	0.1991 * (1.9571)	0.0432 *** (5.7448)	0.0133 (0.9708)	0.1736 (1.5949)
RPTENTITY_SH*BODSIZE	-0.0037 (-0.1418)	-0.1077 * (-1.6496)	0.3089 (0.7388)							-0.0113 (-0.4203)	-0.0865 (-1.2746)	0.3699 (0.9250)
RPTENTITY_ASSC*BODSIZE				-0.0910 * (-1.6761)	-0.0534 (-0.3929)	0.2548 (0.4262)				-0.0900 * (-1.6756)	-0.0699 (-0.5283)	0.0998 (0.1622)
RPTENTITY_OAFF*BODSIZE							-0.0028 (-0.1555)	-0.0583 * (-1.8237)	0.6302 *** (2.6453)	-0.0055 (-0.2986)	-0.0514 (-1.6021)	0.5871 ** (2.1820)
FSIZE	-0.0017 (-0.6829)	-0.0058 (-1.1862)	0.2860 *** (7.1208)	-0.0013 (-0.5411)	-0.0071 (-1.4090)	0.3010 *** (7.6508)	-0.0009 (-0.3802)	-0.0088 * (-1.7446)	0.2921 *** (7.5076)	-0.0006 (-0.2474)	-0.0072 (-1.4655)	0.2795 *** (6.9833)
LEVERAGE	-0.0952 *** (-7.7229)	-0.0495 *** (-3.4986)	0.3082 ** (2.2737)	-0.0993 *** (-8.2399)	-0.0489 *** (-3.3619)	0.2826 ** (2.1095)	-0.0920 *** (-7.6700)	-0.0480 *** (-3.5084)	0.3554 *** (2.8385)	-0.0931 *** (-7.7934)	-0.0490 *** (-3.6086)	0.3758 *** (2.9215)
GROWTH	0.0184 *** (4.3223)	0.0144 *** (3.9321)	0.0771 ** (1.9810)	0.0172 *** (4.0776)	0.0145 *** (3.8116)	0.0726 * (1.8720)	0.0178 *** (4.2848)	0.0139 *** (3.8929)	0.0821 ** (2.1315)	0.0166 *** (4.0168)	0.0138 *** (3.8842)	0.0820 ** (2.1238)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9360	0.8103	0.7520	0.9357	0.8070	0.7513	0.9368	0.8064	0.7735	0.9359	0.8092	0.7702
Adjusted R-squared	0.9246	0.7767	0.7080	0.9243	0.7727	0.7072	0.9256	0.7720	0.7333	0.9239	0.7737	0.7275
F-statistic	82.3624	24.0774	17.0944	82.0768	23.5624	17.0258	83.5850	23.4745	19.2467	78.4674	22.8063	18.0313
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.9 contd.

Panel A.2. Interaction Effects of RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOCSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 55			Model 56			Model 57			Model 58		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1964***	0.2812**	-7.3513***	0.1746***	0.3351**	-7.4516***	0.1276*	0.3626**	-6.1138***	0.1243	0.2998 **	-5.8917 ***
	(2.8782)	(2.0164)	(-6.6565)	(2.7327)	(2.3327)	(-6.8552)	(1.7618)	(2.4877)	(-5.6226)	(1.6459)	(2.1159)	(-5.4365)
RPTENTITY_SH	-0.1320*	0.2545*	0.6923							-0.1072	0.3136 **	2.3408 *
	(-1.8225)	(1.8634)	(0.6080)							(-1.1919)	(2.1347)	(1.7949)
RPTENTITY_ASSC				0.4504**	0.3019	0.9252				0.4152**	0.3066	0.4205
				(2.3869)	(1.2027)	(0.6951)				(2.2045)	(1.1939)	(0.2674)
RPTENTITY_OAFF							0.0223	-0.0456	-1.5952***	0.0216	-0.0788	-1.8323 ***
							(0.5853)	(-0.6958)	(-3.2352)	(0.5498)	(-1.0951)	(-3.6538)
BOCSIZE	-0.0145*	-0.0211	0.2303***	-0.0121	-0.0247*	0.2046***	-0.0091	-0.0311*	0.0065	-0.0099	-0.0240	0.0110
	(-1.8243)	(-1.4179)	(2.9344)	(-1.5855)	(-1.6942)	(2.7006)	(-1.0166)	(-1.9394)	(0.0943)	(-1.0953)	(-1.4823)	(0.1724)
RPTENTITY_SH*BOCSIZE	0.0585	-0.1004	-0.6576							0.0385	-0.1377 *	-1.6290 **
	(1.3792)	(-1.3285)	(-0.9662)							(0.7287)	(-1.6599)	(-2.0860)
RPTENTITY_ASSC*BOCSIZE				-0.1599	-0.1965	-0.4521				-0.1440	-0.2066	-0.2139
				(-1.6004)	(-1.2571)	(-0.4785)				(-1.4432)	(-1.2981)	(-0.2085)
RPTENTITY_OAFF*BOCSIZE							-0.0020	0.0250	1.0180***	-0.0030	0.0473	1.1682 ***
							(-0.0867)	(0.6218)	(3.4509)	(-0.1255)	(1.0624)	(3.8953)
FSIZE	-0.0004	-0.0049	0.3065***	0.0001	-0.0063	0.3109***	0.0015	-0.0070	0.2745***	0.0016	-0.0053	0.2664 ***
	(-0.1550)	(-1.0247)	(8.0586)	(0.0547)	(-1.2808)	(8.2814)	(0.6092)	(-1.4065)	(7.3031)	(0.6397)	(-1.0914)	(7.0937)
LEVERAGE	-0.0923***	-0.0476***	0.4054***	-0.0980***	-0.0462***	0.3909***	-0.0898***	-0.0453***	0.4268***	-0.0906***	-0.0479 ***	0.4536 ***
	(-7.5709)	(-3.2805)	(3.4696)	(-8.2256)	(-3.1775)	(3.4098)	(-7.6094)	(-3.1232)	(4.1047)	(-7.6884)	(-3.2898)	(4.5182)
GROWTH	0.0191***	0.0151***	0.0987**	0.0184***	0.0150***	0.0979**	0.0191***	0.0152***	0.1083***	0.0183***	0.0149 ***	0.1095 ***
	(4.3783)	(3.8572)	(2.5471)	(4.3074)	(3.7736)	(2.5239)	(4.4684)	(3.8361)	(2.9283)	(4.3422)	(3.8149)	(2.9513)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9249	0.8083	0.7772	0.9275	0.8053	0.7794	0.9273	0.8049	0.8564	0.9292	0.8090	0.8813
Adjusted R-squared	0.9115	0.7743	0.7377	0.9147	0.7708	0.7402	0.9144	0.7703	0.8309	0.9161	0.7735	0.8592
F-statistic	69.3844	23.7640	19.6629	72.1561	23.3181	19.9103	71.9128	23.2515	33.6201	70.6045	22.7817	39.9174
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.9 contd.

Panel A.3. Interaction Effects of RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOARDSIZE on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 59			Model 60			Model 61			Model 62		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.1618 **	0.2586 *	-7.0504 ***	0.1599**	0.3207**	-7.4342***	0.0907	0.3243**	-6.7893***	0.0943	0.2592 *	-6.3423 ***
	(2.1588)	(1.8721)	(-6.1873)	(2.3041)	(2.2107)	(-6.7310)	(1.1822)	(2.2433)	(-5.9718)	(1.1873)	(1.8651)	(-5.3671)
RPTENTITY_SH	-0.0932	0.4535 **	-0.7993							-0.0731	0.4430 **	-0.6474
	(-1.0764)	(2.1980)	(-0.5401)							(-0.7425)	(2.0654)	(-0.4281)
RPTENTITY_ASSC				0.5140**	0.2443	0.5022				0.4744 **	0.2324	0.3104
				(2.3535)	(0.7056)	(0.3260)				(2.1147)	(0.6688)	(0.1830)
RPTENTITY_OAFF							0.0850	0.0303	-1.6858**	0.0794	0.0099	-1.4792 *
							(1.5399)	(0.3068)	(-2.1149)	(1.4224)	(0.0988)	(-1.7886)
BOARDSIZE	0.0245 **	-0.0131	0.5592 ***	0.0218**	-0.0188	0.5602***	0.0361***	-0.0117	0.2855**	0.0291 **	-0.0063	0.2986 **
	(2.3272)	(-0.6923)	(4.3568)	(2.2077)	(-0.9975)	(4.4760)	(2.9048)	(-0.5565)	(2.1475)	(2.2957)	(-0.2995)	(2.1128)
RPTENTITY_SH*BOARDSIZE	0.0271	-0.1447 *	0.1621							0.0156	-0.1396 *	0.1510
	(0.7804)	(-1.7927)	(0.2666)							(0.3852)	(-1.6608)	(0.2405)
RPTENTITY_ASSC*BOARDSIZE				-0.1372*	-0.1041	-0.0242				-0.1257	-0.1066	-0.0952
				(-1.7919)	(-0.6785)	(-0.0317)				(-1.5919)	(-0.6899)	(-0.1202)
RPTENTITY_OAFF*BOARDSIZE							-0.0288	-0.0158	0.7759**	-0.0276	-0.0056	0.6746 *
							(-1.2108)	(-0.3738)	(2.2391)	(-1.1475)	(-0.1298)	(1.8705)
FSIZE	-0.0019	-0.0042	0.2640 ***	-0.0018	-0.0057	0.2764***	-0.0006	-0.0064	0.2741***	-0.0002	-0.0047	0.2580 ***
	(-0.7588)	(-0.8609)	(6.9011)	(-0.7464)	(-1.1117)	(7.3933)	(-0.2300)	(-1.2494)	(7.3673)	(-0.0726)	(-0.9587)	(6.6937)
LEVERAGE	-0.0949 ***	-0.0483 ***	0.4032 ***	-0.0992***	-0.0469***	0.3800***	-0.0918***	-0.0466***	0.4642***	-0.0927 ***	-0.0483 ***	0.4764 ***
	(-7.6770)	(-3.2898)	(3.2647)	(-8.2038)	(-3.1421)	(3.1318)	(-7.6629)	(-3.2076)	(4.1198)	(-7.7738)	(-3.3542)	(4.0738)
GROWTH	0.0198 ***	0.0151 ***	0.0822 **	0.0188***	0.0152***	0.0763*	0.0192***	0.0151***	0.0867**	0.0183 ***	0.0147 ***	0.0910 **
	(4.6052)	(3.7674)	(2.0727)	(4.4677)	(3.6547)	(1.9352)	(4.5921)	(3.8246)	(2.2512)	(4.3872)	(3.8189)	(2.3267)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9297	0.8053	0.7558	0.9310	0.8018	0.7581	0.9325	0.8022	0.8038	0.9327	0.8063	0.7885
Adjusted R-squared	0.9172	0.7708	0.7125	0.9187	0.7667	0.7152	0.9205	0.7671	0.7690	0.9202	0.7703	0.7491
F-statistic	74.5067	23.3174	17.4426	76.0073	22.8069	17.6668	77.8340	22.8584	23.0961	74.5237	22.3899	20.0482
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.9 contd.

Panel B. Interaction Effects of RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and INDBOC on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 63			Model 64			Model 65			Model 66		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2491 ***	0.2327 *	-5.7336 ***	0.1764 ***	0.2692 *	-5.9743 ***	0.2118 ***	0.2669 *	-6.3707 ***	0.1566 **	0.2428 *	-5.5728 ***
	(4.0153)	(1.6540)	(-4.7573)	(2.8537)	(1.8815)	(-4.9614)	(3.4825)	(1.8579)	(-5.3797)	(2.3804)	(1.7032)	(-4.5849)
RPTENTITY_SH	-0.0483	0.1768	0.2138							-0.0752	0.1850	-0.7999
	(-0.9147)	(1.5315)	(0.2020)							(-1.5230)	(1.5781)	(-0.7801)
RPTENTITY_ASSC				0.3005 **	0.0717	1.9988 *				0.3081 **	0.0626	2.0442 *
				(2.0536)	(0.4205)	(1.6904)				(2.1733)	(0.3633)	(1.7246)
RPTENTITY_OAFF							0.0643 ***	-0.0142	1.2876 ***	0.0572 **	-0.0159	1.5337 ***
							(3.1973)	(-0.3776)	(4.2644)	(2.5460)	(-0.4129)	(4.8853)
INDBOC	0.1163 ***	0.0584 *	0.6625 **	0.0936 ***	0.0601 *	0.7539 ***	0.1333 ***	0.0503	1.0808 ***	0.1036 ***	0.0570	1.1801 ***
	(6.5181)	(1.8135)	(2.5166)	(4.4295)	(1.8433)	(2.7877)	(7.2967)	(1.4976)	(3.7489)	(4.5642)	(1.6424)	(4.0782)
RPTENTITY_SH*INDBOC	0.0089	-0.2487	-1.2806							0.0830	-0.2719	1.4901
	(0.0729)	(-0.9707)	(-0.4799)							(0.6750)	(-1.0361)	(0.5745)
RPTENTITY_ASSC*INDBOC				-0.3094	-0.1710	-5.0147 *				-0.2998	-0.1693	-5.1278 *
				(-0.8608)	(-0.4537)	(-1.6975)				(-0.8542)	(-0.4455)	(-1.7046)
RPTENTITY_OAFF*INDBOC							-0.1112 **	0.0249	-3.4613 ***	-0.0942 *	0.0306	-4.0659 ***
							(-2.2839)	(0.3238)	(-4.8091)	(-1.6906)	(0.3874)	(-5.5334)
FSIZE	-0.0047 **	-0.0052	0.2527 ***	-0.0021	-0.0063	0.2599 ***	-0.0039 *	-0.0060	0.2699 ***	-0.0017	-0.0055	0.2411 ***
	(-2.2072)	(-1.0650)	(6.0656)	(-0.9650)	(-1.2706)	(6.2307)	(-1.8750)	(-1.2118)	(6.6015)	(-0.7225)	(-1.1039)	(5.7429)
LEVERAGE	-0.0903 ***	-0.0462 ***	0.4169 ***	-0.0910 ***	-0.0466 ***	0.3754 ***	-0.0879 ***	-0.0468 ***	0.3482 ***	-0.0866 ***	-0.0466 ***	0.3428 ***
	(-7.8068)	(-3.0364)	(3.3088)	(-7.9517)	(-3.0341)	(2.9381)	(-7.8351)	(-3.0538)	(2.6839)	(-7.6761)	(-3.0448)	(2.6567)
GROWTH	0.0193 ***	0.0146 ***	0.1160 ***	0.0178 ***	0.0146 ***	0.1227 ***	0.0182 ***	0.0146 ***	0.1149 ***	0.0169 ***	0.0147 ***	0.1233 ***
	(4.6975)	(3.8045)	(3.0628)	(4.2951)	(3.7748)	(3.2310)	(4.5481)	(3.7743)	(3.0643)	(4.1856)	(3.7999)	(3.2370)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9263	0.8145	0.7264	0.9288	0.8104	0.7166	0.9309	0.8104	0.7234	0.9284	0.8143	0.7329
Adjusted R-squared	0.9132	0.7815	0.6779	0.9162	0.7767	0.6663	0.9186	0.7767	0.6743	0.9151	0.7798	0.6832
F-statistic	70.8319	24.7421	14.9667	73.5291	24.0891	14.2524	75.8797	24.0894	14.7412	69.7413	23.5832	14.7548
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	658	658	658	658	658	658	658	658	658	658	658	658

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 7.9 contd.

Panel C. Interaction Effects of RPTENTITY_SH, RPTENTITY_ASSC, RPTENTITY_OAFF and BOCCOM on Firm Performance (ROA, CFO and Tobin's Q)

Coefficient t-Statistic	Model 67			Model 68			Model 69			Model 70		
	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q	ROA	CFO	Tobin's Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C	0.2692 *** (4.5493)	0.3153 ** (2.5247)	-5.6053 *** (-5.0089)	0.2288 *** (3.8654)	0.3291 *** (2.6360)	-6.1025 *** (-5.4703)	0.2025 *** (3.1987)	0.3365 *** (2.6739)	-5.6257 *** (-5.0966)	0.1960 *** (3.0587)	0.3215 ** (2.5303)	-5.4931 *** (-4.8186)
RPTENTITY_SH	-0.0344 * (-1.6765)	0.0693 (1.4213)	-0.3256 (-0.9817)							-0.0326 ** (-2.0810)	0.0398 (0.7688)	-0.4129 (-1.1939)
RPTENTITY_ASSC				0.1636 *** (3.5485)	0.0200 (0.1632)	0.5988 (0.9536)				0.1748 *** (3.9712)	0.0190 (0.1556)	0.5789 (0.8829)
RPTENTITY_OAFF							0.0171 ** (1.9974)	0.0127 (0.8277)	-0.0606 (-0.4354)	0.0141 (1.5487)	0.0174 (0.9779)	0.0530 (0.3240)
BOCCOM	0.0392 *** (4.2207)	0.0456 *** (4.0480)	0.1746 (1.3027)	0.0345 *** (4.0813)	0.0428 *** (3.9586)	0.2151 * (1.7714)	0.0295 *** (2.9067)	0.0564 *** (4.7227)	0.2489 * (1.7034)	0.0337 *** (3.1253)	0.0549 *** (4.4277)	0.2801 * (1.8826)
RPTENTITY_SH*BOCCOM	-0.0595 ** (-2.1622)	-0.0238 (-0.5135)	0.1937 (0.4399)							-0.0560 (-1.6325)	0.0356 (0.5994)	0.3554 (0.6244)
RPTENTITY_ASSC*BOCCOM				0.0727 (0.6016)	-0.0205 (-0.0637)	-1.6928 (-0.9362)				0.0667 (0.5574)	-0.0667 (-0.2100)	-1.9622 (-1.0492)
RPTENTITY_OAFF*BOCCOM							0.0062 (0.4377)	-0.0475 * (-1.8888)	0.0457 (0.1875)	0.0063 (0.3587)	-0.0571 * (-1.6754)	-0.2090 (-0.6520)
FSIZE	-0.0041 (-1.9939)	-0.0076 * (-1.7547)	0.2572 *** (6.5112)	-0.0028 (-1.3610)	-0.0080 * (-1.8376)	0.2741 *** (6.9549)	-0.0019 (-0.8581)	-0.0083 * (-1.8984)	0.2569 *** (6.5895)	-0.0017 (-0.7831)	-0.0079 * (-1.7856)	0.2526 *** (6.3053)
LEVERAGE	-0.0982 *** (-7.9240)	-0.0530 *** (-3.8462)	0.3003 ** (2.3386)	-0.1052 *** (-8.5822)	-0.0520 *** (-3.7357)	0.2579 ** (1.9792)	-0.0975 *** (-7.9983)	-0.0528 *** (-3.8504)	0.2895 ** (2.2125)	-0.0991 *** (-8.2762)	-0.0542 *** (-3.9020)	0.2756 ** (2.0832)
GROWTH	0.0237 *** (5.4320)	0.0151 *** (3.6567)	0.1134 *** (2.9714)	0.0222 *** (5.1290)	0.0151 *** (3.6654)	0.1115 *** (2.8892)	0.0223 *** (5.2363)	0.0149 *** (3.5274)	0.1166 *** (3.0319)	0.0217 *** (5.0814)	0.0149 *** (3.5071)	0.1122 *** (2.8974)
Cross-section fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9295	0.8137	0.7798	0.9308	0.8102	0.7711	0.9306	0.8110	0.7703	0.9307	0.8132	0.7736
Adjusted R-squared	0.9169	0.7802	0.7402	0.9184	0.7761	0.7300	0.9181	0.7770	0.7290	0.9176	0.7780	0.7310
F-statistic	73.3978	24.3064	19.7072	74.8861	23.7619	18.7478	74.6365	23.8746	18.6658	71.3003	23.1174	18.1482
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	651	651	651	651	651	651	651	651	651	651	651	651

*** significant at 1%, ** significant at 5%, * significant at 10%

7.5.5 Summary of the Interaction Effects Results

This section summarises the results from Section 7.5.1 to Section 7.5.4. This study finds evidence that characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and commitees established in the BOC) moderate the relationship between RPTs and firm performance. Stronger evidence is found for the moderating role of characteristics of corporate governance on the relationship between RPTs based on the nature of transaction and firm performance, particularly in RPTs sales and short-term performance measured with ROA and relationship between RPTs purchases and short-term performance measured with ROA. It seems that the monitoring mechanisms work well when the sample firms undertake RPTs sales and RPTs purchases. The reason may be because sales and purchases are the critical operating activities of a firm. Weak evidence for the moderating role of characteristics of corporate governance is seen in the relationship between RPTs based on the status of related party and sub-categories of RPTs entity based on the nature of relationship and firm performance. The relationship of RPTs based on the status of related party in the form of RPTs entity and short-term firm performance (ROA) is moderated and weakened by total size of the BOD and BOC (Boardsize). The relationship between RPTs shareholders and firm performance measured with CFO is moderated by the size of the BOD, total size of the BOD and BOC, and committees established in the BOC. The size of the BOD and total size of the BOD and BOC weaken the relationship between RPTs shareholders and CFO, but committees established in the BOC strengthen the relationship between RPTs shareholders and ROA. The relationship between RPTs associates and joint firms and firm performance measured with ROA is moderated and weakened by size of the BOD and total size of the BOD and BOC. The relationship between RPTs other affiliates and firm performance measured with ROA is moderated and weakened by the independence of the BOC (INDBOC).

However, this study finds no evidence for the moderating role of corporate governance characteristics (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) on the relationship between total size of RPTs and firm performance measured with ROA and the relationship between RPTs based on the status of related party in the form of RPTs person and long-term firm performance (Tobin's Q).

In general, the characteristics of corporate governance such as the size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC moderated the relationship between several types of RPTs (RPTs based on the nature of the transaction and RPTs entity based on the nature of the relationship) and firm performance (ROA, CFO, or Tobin's Q). Thus, the findings of this study partially support Hypothesis 4.

Table 7.10 Summary of the Results for the Interaction Effects of RPTs and Characteristics of Corporate Governance on Firm Performance

Research Questions	Hypothesis	Expected	Moderator	Findings	Conclusion
4 Is the relationship between RPTs and firm performance moderated by the characteristics of corporate governance?	The relationship between RPTs and firm performance is moderated by the characteristics of corporate governance?				rejected H4a
4.a Is the relationship between total size of RPTs (RPTTOTAL) and firm performance moderated by the characteristics of corporate governance?	H4a The relationship between total size of RPTs (RPTTOTAL) and firm performance is moderated by the characteristics of corporate governance.	+/-	BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM	1. RPTTOTAL and ROA not moderated (no evidence) 2. RPTTOTAL and ROA not moderated (no evidence) 3. RPTTOTAL and ROA not moderated (no evidence) 4. RPTTOTAL and ROA not moderated (no evidence) 5. RPTTOTAL and ROA not moderated (no evidence)	
4.b Is the relationship between RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) and firm performance moderated by the characteristics of corporate governance?	H4b The relationship between RPTs based on the nature of the transaction (RPTSALES, RPTPURCHASES, RPTLENDING and RPTLIABILITIES) and firm performance is moderated by the characteristics of corporate governance.	+/-	BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM	1. RPTSALES and ROA is moderated (weakened) 2. RPTSALES and ROA is moderated (weakened) 3. RPTSALES and ROA is moderated (weakened) 4. RPTSALES and ROA is moderated (weakened) 5. RPTSALES and BOCCOM not moderated (no evidence) 6. RPTPURCHASES and ROA is moderated (reversed and weakened) 7. RPTPURCHASES and ROA is moderated (reversed and weakened) 8. RPTPURCHASES and ROA is moderated (reversed and weakened) 9. RPTPURCHASES and ROA is moderated (reversed and weakened) 10. RPTPURCHASES and ROA is moderated (weakened) 11. RPTLENDING and Tobin's Q is moderated (weakened) 12. RPTLENDING and Tobin's Q not moderated (no evidence) 13. RPTLENDING and Tobin's Q not moderated (no evidence) 14. RPTLENDING and Tobin's Q is moderated (reversed and weakened) 15. RPTLENDING and Tobin's Q not moderated (no evidence) 16. RPTLIABILITIES and CFO is moderated (weakened) 17. RPTLIABILITIES and CFO is moderated (weakened) 18. RPTLIABILITIES and CFO is moderated (weakened) 19. RPTLIABILITIES and CFO not moderated (no evidence) 20. RPTLIABILITIES and CFO not moderated (no evidence)	accepted H4b
4.c Is the relationship between RPTs based on the status of related party (RPTPERSON and RPTENTITY)	H4c The relationship between RPTs based on the status of related party (RPTPERSON and	+/-	BODSIZE BOCSIZE BOARDSIZE	1. RPTPERSON and Tobin's Q not moderated (no evidence) 2. RPTPERSON and Tobin's Q not moderated (no evidence) 3. RPTPERSON and Tobin's Q not moderated (no evidence)	Partially supported H4c

Research Questions		Hypothesis		Expected	Moderator	Findings	Conclusion
	and firm performance moderated by the characteristics of corporate governance?		RPTENTITY) and firm performance is moderated by the characteristics of corporate governance.		INDBOC BOCCOM BODSIZE BODSIZE BOARDSIZE INDBOC BOCCOM	4. RPTPERSON and Tobin's Q not moderated (no evidence) 5. RPTPERSON and Tobin's Q not mdoerated (no evidence) 6. RPTENTITY and ROA not moderated (no evidence) 7. RPTENTITY and ROA not moderated (no evidence) 8. RPTENTITY and ROA is moderated (weakened) 9. RPTENTITY and ROA not moderated (no evidence) 10. RPTENTITY and ROA not moderated (no evidence)	
4.d	Is the relationship between RPTs entity based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and firm performance moderated by the characteristics of corporate governance?	H4d	The relationship between RPTs based on the nature of the relationship (RPTENTITY_SH, RPTENTITY_ASSC and RPTENTITY_OAFF) and firm performance is moderated by the characteristics of corporate governance.	+/-	BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM BODSIZE BOCSIZE BOARDSIZE INDBOC BOCCOM	1. RPTENTITY_SH and ROA not moderated (no evidence) RPTENTITY_SH and CFO is moderated (weakened) 2. RPTENTITY_SH and ROA and CFO not moderated (no evidence) 3. RPTENTITY_SH and ROA not moderated (no evidence) RPTENTITY_SH and CFO is moderated (weakened) 4. RPTENTITY_SH and ROA and CFO not moderated (no evidence) 5. RPTENTITY_SH and ROA is moderated (strengthened) 6. RPTENTITY_ASSC and ROA is moderated (weakened) 7. RPTENTITY_ASSC and ROA not moderated (no evidence) 8. RPTENTITY_ASSC and ROA is moderated (weakened) 9. RPTENTITY_ASSC and ROA not moderated (no evidence) 10. RPTENTITY_ASSC and ROA not moderated (no evidence) 11. RPTENTITY_OAFF and ROA not moderated (no evidence) 12. RPTENTITY_OAFF and ROA not moderated (no evidence). 13. RPTENTITY_OAFF and ROA not moderated (no evidence) 14. RPTENTITY_OAFF and ROA is moderated (weakened) 15. RPTENTITY_OAFF and ROA not moderated (no evidence).	Partially suported H4d

7.6 Summary of the Chapter

This chapter presents and discusses the results related to the third and fourth specific objectives of this study. The third specific objective is to examine the combined effects of RPTs and the characteristics of corporate governance on firm performance, and the fourth specific objective is to examine the interaction effects of RPTs and characteristics of corporate governance on the relationship between RPTs and firm performance.

With regards to the combined effect of RPTs and characteristics of corporate governance, this study finds that except for RPTs lendings on Tobin's Q and RPTs shareholders on ROA, RPTs have significant positive relationship with firm performance. Positive relationships are also found for the majority of the characteristics of corporate governance and firm performance. The results presented in Chapter 7 are consistent with Chapter 5 and Chapter 6. Consistent with contracting theory, stakeholders theory, agency theory and management theory, most firms engage in RPTs in their business activities. Additionally, good corporate governance through its characteristics can improve firm performance through the monitoring mechanisms of the BOD and BOC.

When the interaction effect of RPTs and the characteristics of corporate governance on firm performance is considered, this study finds that characteristics of corporate governance moderate the relationship between RPTs and firm performance by weakening or strengthening those relationships. The stronger moderating roles of corporate governance characteristics are seen on the relationship between RPTs sales and short-term firm performance (ROA) and relationship between RPTs purchases and short-term firm performance (ROA), since the majority of characteristics of corporate governance moderate and weaken those relationships. The moderating roles of corporate governance characteristics are only partially found in the relationship between RPTs based on the status of related party in the form of RPTs entity and short-term firm performance (ROA) and in the relationship of RPTs entity based on the nature of the relationship and firm performance. However, this study reveals that the characteristics of corporate governance do not moderate the relationship between total size of RPTs and firm performance and relationship between RPTs based on the status of related party in the form of RPTs person and firm performance. This findings are in accordance with management theory and agency theory, the characteristics of corporate governance in the forms of the size of BOD, the size of BOC, the total size of BOD and BOC (or the size of the firm's board), the independence of the BOC, and the number of committees in the BOC are effective to reduce the effect of RPTs.

An overview of this study and summary of the results are provided in the following concluding chapter. The implications, limitations and recommendations are also made for future research.

CHAPTER 8
SUMMARY AND FUTURE RESEARCH

8.1 Introduction

This study examines the relationship of RPTs and corporate governance characteristics on firm performance for a sample of Indonesian listed firms. This study first investigates the relationship between RPTs and firm performance. Next, this study examines the relationship between corporate governance characteristics and firm performance. The combined effects, as well as the interaction effects of RPTs and corporate governance characteristics on firm performance, are also observed. Most Indonesian listed firms are involved in RPTs. This observation as well as the unique corporate governance practices in Indonesia motivated the study of the influence of RPTs and corporate governance characteristics on firm performance and the moderating role of the corporate governance characteristics on the relationship between RPTs and firm performance.

According the ISFAS 7 (Revised 2010), related party is defined as person or entity that is related to the reporting firm while RPT is defined as a transferring of resources, services, or liabilities between reporting firm and its related parties. The ISFAS 7 (Revised 2010) requires disclosure of the substances and elements of RPTs as follows: 1) the nature of relationship between the reporting firm and related party; 2) the transactions with related party including the amount of transaction and the nature of transaction; and 3) the outstanding balance of RPTs. Therefore, this study observes several types of RPTs, including: 1) total size of RPTs; 2) RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities); 3) RPTs based on the status of related party (RPTs person and RPTs entity). This study also examines sub-categories of RPTs entity based on the nature of the relationship, namely (i) RPTs shareholders; (ii) RPTs associates and joint firms; and (iii) RPTs other affiliates.

Under the contracting theory, a firm as a legal nexus carries out its business activities through contractual relationship with suppliers and consumers of production factors. In the contractual relationship, the firm serves to centralise or link the contract between consumers and suppliers (Godfrey et al. 2010). Under stakeholder theory, the selection of activities and the direction of resources to generate legitimate stakeholders benefits are the responsibility of managers and management functions (Donaldson & Preston 1995). In undertaking business activities, firms develop contractual relationships with other parties, including third parties and related parties.

Thus, when undertaking these contractual relationships, which include RPTs, the firm through its managers should consider its stakeholders.

Controlling and monitoring are intended to regulate the firm activities, to ensure that firm performance conforms to the firm's standards and objectives, and to ensure effectiveness and efficiency for successful management (Bartol et al. 2011; Davidson, P et al. 2009). Monitoring also serves as a way to mitigate agency problem between managers and shareholders (Jensen & Meckling 1976). Transparency and accountability within good corporate governance provide a system where the managers can manage the firm successfully and prudently allocate the firm's resources. Better management and more prudent distribution of the firm's resources could enhance firm performance, and thereby contribute to the firm's share price and increase the shareholders' value (Mobius & Keong 2002). In addition, good corporate governance could improve operating performance through better oversight by the firm's board over the firm's managers. These conditions could result in: value-maximising and efficient operating activities, less waste of resources, reducing the occurrences of tunneling, asset-stripping, and other firm assets diverting, lowering the cost of capital, and improving external finance availability (Love 2011). In this study, some characteristics of corporate governance such size of the BOD, size of the BOC, independence of the BOC, committees established in the BOC, size of the audit committee, and expertise in finance and/or accounting of the audit committee are considered as the monitoring mechanisms.

This study investigates the relationship between RPTs, corporate governance characteristics, and firm performance based on 94 non-financial listed firms in Indonesia Stock Exchange for the period 2007 to 2013 (658 firm-years observations). This sample constitutes 24.54% of the Indonesian listed firms in the financial year 2007. A panel data with GLS fixed effect method has been applied to answer the research questions of this study.

The following sections will discuss the summary of the findings, implications of the findings, which include conceptual and practical implications, limitations of the study, recommendations for future research and a summary of the thesis.

8.2 Summary of the Findings

This section summarises the findings of this study, including preliminary findings, the relationship between RPTs and firm performance, the relationship between RPTs and firm income tax expense, the relationship between characteristics of corporate governance and firm performance, the combined effects of RPTs and characteristics of corporate governance on firm performance,

and the interaction effect between RPTs and characteristics of corporate governance on firm performance.

8.2.1 Preliminary Findings

From the descriptive statistics results, this study finds that the sample firms have undertaken a total size of RPTs that are on average 30% of the firm's total assets at the end of the year. With regards to the RPTs based on the nature of the transaction, the sample firms on average have higher RPTs purchases than RPTs sales, and higher RPTs liabilities than RPTs lending. On average, the sample firms are involved in more RPTs entities than RPTs person. On average, the RPTs entities have been undertaken more with other affiliates than with the other two types of related entities (that is with the firm's shareholders, or with associates and joint firms).

The trend analysis finds that the RPTs in terms of total size of RPTs, RPTs based on the nature of the transaction (RPTs sales and RPTs purchases), and RPTs based on the status of related party (RPTs person and RPTs entity) are quite stable over the period of study. The two other types of RPTs based on the nature of transaction (RPTs lending and RPTs liabilities) decrease a little. When looking at the trend of RPTs other affiliates, there is a similar trend to that of RPTs entity. RPTs shareholders show a slightly declining trend, while RPTs associates and joint firms have a plateau trend.

8.2.2 The Relationship of RPTs and Characteristics of Corporate Government on Firm Performance

This study finds that RPTs have positive relationship with firm performance. Total size of RPTs has significant positive influence on firm performance measured with ROA. Firms with higher total size of RPTs have better firm performance measured with ROA. This result agrees with propping motive and pure economic motive.

Except for RPTs lending, which have significant negative relationship with long-term firm performance (Tobin's Q), RPTs based on the nature of the transaction have significant positive relationship with firm performance. RPTs sales and RPTs purchases are positively related to short-term firm performance measured with ROA, while RPTs liabilities have significant positive impacts on short-term firm performance measured with CFO. Firms with higher RPTs sales and RPTs purchases seem to have higher short-term firm performance measured with ROA. Sales and purchases are the two important activities for the firm. When the sales and purchases activities are increasing, firm performance may also increase. Increase in the RPTs sales and RPTs purchases indicate that firm performance measured with short-term performance (ROA) tends to increase. Meanwhile, obtaining funds through liabilities in terms of account payables, debts and other forms

of liabilities from related parties could increase cash flow from operations. Those funds support a firm's operational activities, which result in higher CFO.

However, this study finds that RPTs lending has significant negative effects on long-term firm performance measured with market-based firm performance measurement (Tobin's Q). When firm performance is measured with Tobin's Q, providing credit or loans to related parties has a negative impact on firm performance. This means that firms with higher RPTs lending seem to have lower long-term firm performance measured with Tobin's Q. The negative impact of RPTs lending on Tobin's Q is in line with tunneling motive of a firm that is engaging in RPTs lending. RPTs lending generates a negative impact on firm performance measured with Tobin's Q. Since RPTs lending is used to facilitate tunneling (Habib, Muhammadi & Jiang 2017; Jian & Wong 2003; Juliarto et al. 2013), the market responds negatively, which results in a reduction in the share price.

In regard to the second type of RPTs, RPTs based on the status of related party (RPTs person and RPTs entity) have significant positive relationship on firm performance. RPTs person has a significant positive effect on long-term firm performance measured with Tobin's Q, while RPTs entity has significant positive effects on short-term firm performance measured with ROA. These positive relationships imply that firms with higher RPTs person seem to have higher Tobin's Q and firms with higher RPTs entities have higher ROA. Most sample firms are involved in RPTs with a party with entity status compared to individual or person status. The reason may be because entity has similar legal status compared to individual or person, then it provides flexibility in transactions. The firms can still continue the business relationship even though the ownership of an entity have changed. In this study, most of the RPTs with person are transactions with key management personnel in the form of benefits payments. Thus, higher RPTs person shows that a firm that hires more key management persons results in higher benefits payments. These key management persons will contribute to the long-term firm performance.

Except for RPTs shareholders, the sub-categories of RPTs entity based on the nature of the relationship have significant positive relationship on firm performance. RPTs associates and joint firms and RPTs other affiliates have significant positive relationships with firm performance measured with short-term firm performance (ROA). Firms with higher RPTs associates and joint firms and RPTs other affiliates have higher short-term firm performance measured with ROA. It seems that firms are involved in these types of RPTs to enhance business activities, which results in higher ROA. However, RPTs shareholders are found to have a mixed relationship on firm performance, which are positive with CFO but negative with ROA. Firms with higher RPTs shareholders seem to have higher CFO and lower ROA. The reason for these different effects of RPTs shareholders may be because most of them are RPTs liabilities, which will have a positive impact on CFO and negative impact on ROA.

With regards to the relationship of corporate governance characteristics and firm performance, this study reveals that the majority of the characteristics of corporate governance have significant positive relationship with firm performance. The size of the BOD and total size of the BOD and BOC have significant positive relationship with firm performance measured with short-term firm performance (ROA) and long-term firm performance (Tobin's Q). The size of the BOC only has significant positive association with long-term firm performance measured with Tobin's Q. The results imply that larger size of the BOD, larger size of the BOC, and larger total size of the BOD and BOC provide better governance due to better monitoring mechanisms. However, size of the BOC has significant negative relationship with firm performance measured with ROA and CFO. The size of the BOC does not show the positive effects on firm performance to support the hypotheses.

The independence of the BOC and committees established in the BOC have significant positive relationships with short-term firm performance (ROA and CFO) and long-term firm performance (Tobin's Q). This result implies that higher independence of the BOC will help to increase firm performance through the supervisory and advisory functions of the BOC. With higher independence, the BOC can carry out its duties with less influence from other parties and they can also provide better recommendations to the BOD. Moreover, the purpose of committees established in the BOC is to support the role of BOC in conducting its supervisory and advisory duties. Thus, more committees established in the BOC will lead to better monitoring mechanisms and thereby enhance firm performance. The findings of this study support the hypothesis that committees established in the BOC have significant positive relationship with firm performance.

The size of audit committee has significant negative relationship with firm performance measured with CFO, implying that a larger size of audit committee will decrease firm performance. Larger size of audit committee may increase the expenses of the firm in the form of salary or other benefits payments, which contribute to decreasing cash flow from operating activities. In addition, the relationship between size of the audit committee and other firm performance measurements (ROA and Tobin's Q) is found to be insignificant. Thus, the findings on the relationship of size of audit committee do not support the hypothesis since their relationships are significant negative and insignificant. This finding is consistent with the finding of Karamanou and Vafeas (2005) that committee size has significant negative association with the probability of making the management's earnings forecast and the precision of management's earnings forecast, and size of audit committee does not influence firm performance (Sun, J & Liu 2014), or financial reporting quality (Kusnadi et al. 2016)

The expertise in finance and/or accounting of audit committee has significant positive relationship with short-term firm performance (ROA). This result implies that the greater expertise in finance

and/or accounting of audit committee can enhance firm performance measured with ROA. However, this study finds that the expertise in finance and/or accounting of audit committee has significant negative relationship with firm performance measured with CFO. These results imply that the expertise in finance and/or accounting of audit committee increase the short-term firm performance by members applying their competency in the process of assisting BOC to conduct its supervisory and advisory functions, but it costs a firm with a higher expense which results in lower cash flow from operating activities.

Overall, these findings imply that the majority of the characteristics of corporate governance, such as the size of the BOD, total size of the BOD and BOC, independence of the BOC, and the committees established in the BOC have a role in supervisory and advisory mechanisms and they have positive influence on firm performance. Size of the BOC also has similar influence on firm performance measured with Tobin's Q. Investors view that larger size of the BOC will enhance the firm performance in the long term horizon.

In regards to the interaction effects of characteristics of corporate governance and firm performance, this study finds that the characteristics of corporate governance moderate the relationship between RPTs and firm performance. The moderating roles of the characteristics of corporate governance are seen on the relationship between RPTs based on the nature of the transaction (RPTs sales, RPTs purchases, RPTs lending and RPTs liabilities, particularly RPTs sales and RPTs purchases) and partially observed on the relationship between RPTs based on the status of related party in the form of RPTs entity and short-term firm performance (ROA), and sub-categories of RPTs entity (RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates) and firm performance. The supervisory and advisory functions of the BOD and BOC are shown to enhance firm performance, and at the same time moderate the effect of several types of RPTs on firm performance.

8.3 Implications of the Findings

The findings of this study have several conceptual and practical implications. In relation to conceptual implications, this study enriches the literature on RPTs and corporate governance in several ways. Previous studies have examined several types of RPTs such as: 1) RPTs based on the nature of transactions (Jian and Wong, 2003; Gordon et al., 2004; Cheung et al., 2009; Chen et al., 2009; Jian and Wong, 2010; Peng et al., 2011; Lei and Song, 2011); 2) RPTs based on the related party (Friedman, Johnson & Mitton 2003; Gordon & Henry 2005); 3) RPTs based on the impact (Berkman, Cole & Fu 2010; Cheung, Rau & Stouraitis 2006); 4) RPTs based on the motive (Wong, Kim & Lo 2015); 5) RPTs based on the complexity of the transactions (Kohlbeck & Mayhew 2010); and 6) RPTs based on the firm's functional activities (Kang et al. 2014). This study addresses the first two of types of RPTs. In the second type, this study differs by further breaking

down the related party into two sub-categories based on the status of related party, namely RPTs person and RPTs entity. This analysis aligns with the spirit of ISFAS 7 (Revised 2010), which has redefined the related party into person and entity. This study further addresses the role of related entity by looking at RPTs shareholders, RPTs associates and joint firms and RPTs other affiliates. Except for RPTs lending on Tobin's Q and RPTs shareholders on ROA, the findings of the study reveal that RPTs have significant positive relationship with firm performance. These findings show that firms that undertake RPTs enhance firm performance. The types and sub-categories of RPTs, namely RPTs based on the status of related party and RPTs with entity based on the nature of transaction in this study also enrich the types and sub-categories of RPTs that have been observed. RPTs based on the status of related party is found to have positive relationship with firm performance. RPTs person have positive relationship with long-term firm performance while RPTs entity have positive relationship with short-term firm performance. In addition, except for RPTs shareholders, the sub-categories of RPTs entity based on the nature of the relationship have significant positive relationship on firm performance. RPTs associates and joint firms and RPTs other affiliates have significant positive relationships with firm performance measured with short-term firm performance (ROA).

Secondly, this study observes the characteristics of corporate governance in the two board system, which separates the BOD and the BOC. In most previous studies, the characteristics of corporate governance are examined in the one board system, or as if there is a one board system, since they do not differentiate between the BOC and BOD in the analysis. While China has a two board system, most of their studies do not differentiate the impact of the two separate boards (Huyghebaert & Wang 2012; Liang, Xu & Jiraporn 2013; Liu, Y et al. 2015; Liu, Y, Wei & Xie 2014; Wang, L 2015) and only limited studies separate the firm's board in the analysis (Farag & Mallin 2016; Haß, Johan & Schweizer 2016). This study addresses the following characteristics of corporate governance in the two board system: 1) size of the BOD; 2) size of the BOC; 3) total size of the BOD and BOC; 4) independence of the BOC; 5) committees established in the BOC; 6) size of the audit committee; and 7) expertise in finance and/or accounting of audit committee members. This study finds that the majority of characteristics of corporate governance have significant positive impacts on firm performance. Size of the BOD and total size of the BOD and BOC have significant positive relationship with firm performance measured with ROA and Tobin's Q. Size of the BOC only has significant positive association with firm performance measured with Tobin's Q. Independence of the BOC and committees established in the BOC have significant positive relationship with ROA, CFO and Tobin's Q. The expertise in finance and/or accounting of audit committee has significant positive relationship with ROA. However, size of audit committee has significant negative relationship with firm performance measured with CFO. These findings imply that corporate governance through its characteristics is important since it enhances firm

performance. The findings complement the existing empirical studies, which mostly investigate the corporate governance in the one board system.

Thirdly, the characteristics of corporate governance are also found to moderate the relationship between RPTs (especially RPTs sales and RPTs purchases) and firm performance. The relationship between RPTs sales and short-term firm performance measured with ROA is moderated and weakened by size of the BOD, size of the BOC, total size of the BOD and BOC, and independence of the BOC. The moderating effect of those characteristics of corporate governance is stronger in the relationship between RPTs purchases and ROA since they reverse the effect of RPTs purchases from positive to negative, and at the same time weaken the negative effect of RPTs purchases on firm performance. The relationship between RPTs lending and Tobin's Q are moderated and weakened by size of the BOD and independence of the BOC, while the relationship between RPTs liabilities and CFO are moderated and weakened by size of the BOD, size of the BOC, and total size of the BOD and BOC. Thus, clear evidence of the moderating role of characteristics of corporate governance on the relationship of RPTs and firm performance is seen in the relationships between RPTs sales and ROA, and between RPTs purchases and ROA. The moderating role of the characteristics of corporate governance is partially seen in the relationship between RPTs based on the status of related party and firm performance and sub-categories of RPTs entity based on the nature of transaction and firm performance. The relationship of RPTs based on the status of related party in the form of RPTs entity and short-term firm performance (ROA) is moderated by the total size of BOD and BOC (boardsize). The relationship between RPTs shareholders and firm performance measured with CFO is moderated by the size of the BOD, total size of the BOD and BOC, and committees established in the BOC. The size of the BOD and total size of the BOD and BOC weaken the relationship between RPTs shareholders and CFO, but committees established in the BOC strengthen the relationship between RPTs shareholders and ROA. The relationship between RPTs associates and joint firms and firm performance measured with ROA is moderated and weakened by size of the BOD and total size of the BOD and BOC. The relationship between RPTs other affiliates and firm performance measured with ROA is moderated and weakened by the independence of the BOC (INDBOC). The supervisory and advisory functions of the BOD and BOC are shown to enhance firm performance, and at the same time moderate the effect of several types of RPTs on firm performance. These findings imply that corporate governance through its characteristics is important since they can moderate the effects of RPTs. The relationship of The findings also complement the existing empirical studies on corporate governance.

Fourthly, this study explores the cash aspect of firm performance by looking at CFO as the measurement of firm performance. By doing so, this study not only covers the accruals aspect measurement, but also the cash aspect measurement. In examining the impact of RPTs on cash

aspect firm performance, this study finds that RPTs liabilities have significant positive relationship with firm performance measured with CFO. This finding implies that RPTs in terms of RPTs liabilities can also enhance firm performance measured with cash aspect performance. This finding enriches and complements the studies in RPTs.

With regard to practical implications, the findings are useful for: 1) policy or standard setters and regulators related to RPTs and corporate governance; 2) existing and potential shareholders/ investors; and 3) firm's board members, especially for independent directors in the BOD and independent commissioners in the BOC. For the policy/standard setters and regulators concerning RPTs and corporate governance, the findings of this study provide evidence that RPTs are extensively undertaken by the sample firms. The findings show that RPTs can positively influence firm performance. Hence, the disclosure of RPTs is very important and needed to ensure that users of financial statements are well-informed about RPTs of the firm and this information may be helpful to the investors' decision making. In addition, the understanding related to the usefulness of the disclosure of RPTs, which can improve the value relevance of a firm's earnings, is important for the standard setters and regulators (Lo, Agnes W. Y. & Wong 2016). Lo and Wong (2016) suggest that the disclosure of transfer pricing methods provide incremental value-relevant information beyond total sales compared to the simple disclosure of the value of RPTs sales. The informative disclosure of RPTs complements the weak corporate governance mechanisms to allow the users of financial statements to properly interpret the information disclosed. Following Wong, Kim and Lo (2015), the disclosure of RPTs, and in particular the related pricing policies including market-based pricing and cost-based pricing methods, can be recommended to the standard setters and regulators as part of the mandatory disclosure of RPTs to decrease the negative effects of RPTs.

In addition, while collecting the data on RPTs, it is found that the majority of sample firms comply with ISFAS 7 (Revised 2010). However, it is also found that there is inconsistency in the disclosure of RPTs with key management persons, for example several sample firms disclose the payment of benefits to the key management persons in general information of the notes of audited financial statement, but not in the RPTs section of the notes of audited financial statements. Meanwhile, most of the sample firms disclose the benefits payment to the key management persons in both the general information and the RPTs section. Another inconsistency observed in disclosing RPTs is that several sample firms disclose the outstanding balance of RPTs liabilities in the RPTs section of the notes of the audited financial statement, but they do not disclose the RPTs purchases goods and/or services in such notes. These inconsistencies in the disclosure of RPTs could be the result of different interpretations of the RPTs disclosure regulations.

Hence, it is recommended that the standard setters and/or regulators improve the clarity of the standards for the disclosure of RPTs. A suggestion is to provide an example format for RPTs disclosure in the notes of financial statements. The regulator also needs to encourage firms to comply with the standard of RPTs disclosure and to monitor the compliance of firms to the standard and regulation in RPTs. As suggested by Asian Development Bank (2013), monitoring by the regulator has a critical role to enhance corporate governance practices in Indonesia. Following from Louwers et al. (2008) who find that the deficiency in the auditing of RPTs are failures to identify related parties and RPTs and inadequate disclosures of RPTs, it is recommended that the regulator in RPTs should encourage the external auditor to give more attention to the RPTs that are undertaken by the firm and their disclosure in the notes of financial statements.

Existing and/or potential shareholders/investors may look at the RPTs that are undertaken by the firm. The findings confirm that in the Indonesian context, most RPTs have a positive impact on firm performance, except for RPTs lending on Tobin's Q and RPTs shareholders on ROA. RPTs activities in general enhance firm performance. Thus, the existing and/or potential shareholders or investors can consider the extent of RPTs activities undertaken by the firms since the related firms can also contribute to firm performance. However, RPTs such as RPTs sales may be used for private benefits of key management persons (Gordon, Henry & Palia 2004; Jensen & Meckling 1976). Consistent with Jian and Wong (2003), Kohlbeck and Mayhew (2010), Kang et al. (2014), Wong, Kim and Lo (2015), and Habib, Muhammadi and Jiang (2017), RPTs lending have negative impact on firm performance, suggesting that RPTs lending have been used by the firm to tunnel the firm's resources. If the existing and/or potential investors look at RPTs for decision making, they need to be cautious with RPTs lending. In addition, the existing and/or potential shareholders/investor can check the processes of RPTs by reading the firm's proxy statement without any cost through the firm's web page or the firm's other published statement related to RPTs (Wolf 2012). Based on the RPTs that are undertaken and disclosed in the notes of the audited financial statement, the existing and potential shareholders or investors may assess the firm's risks and opportunities that may occur from related parties before they make any investment decisions.

Existing and/or potential shareholders/investors may also consider the firm's board structure in their decision making. The findings show that the majority of characteristics of corporate governance (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) enhance firm performance due to better management function of the BOC and supervisory and advisory functions of the BOC. In addition, characteristics of corporate governance also effectively moderate the relationship between RPTs and firm performance, especially the relationships between RPTs sales and ROA, and between RPTs purchases and ROA.

The firm's board members, especially independent directors and independent commissioners, should pay attention to and consider the impact of engaging in RPTs to the firm and the firm's stakeholders, as well as being prudent when monitoring the RPTs undertaken by the firm. The findings of this study reveal that with the exception for RPTs lending on Tobin's Q, RPTs have positive relationship with firm performance. Susan (2012) suggests the following basic consideration process for a firm's board members when the firm is engaging in RPTs. Firstly, all the facts of RPTs are provided to the firm's board members in advance. Being a prudent board, the firm's board members hire an independent lawyer and accountant to manage the RPTs properly, especially for complex transactions. Secondly, the lawyer and accountant examine the transaction to determine whether it is allowed by regulation. Then, the lawyer and accountant review the draft of disclosures with the firm's board members to ensure that they obtain the full information related to the details of the proposed transaction being considered. Thirdly, the firm's board members compare the transaction with the pre-determined standard, for example whether the transaction is in the best interests of the firm and its shareholders, and the terms and conditions of transactions are at least as good as such terms with non-related parties. Lastly, the firm's board members consider how the firm's stakeholders will view such a transaction in order to gain their trust. According to Wolf (2012), hearing and getting information directly from the officers of governance and investor relations who deal with the shareholders is the best way to accomplish the last process.

In addition, the firm's board members (BOD and BOC members) need to work properly and consider the structure of the firm's board (size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC) since the findings of this study reveal that the majority of characteristics of corporate governance contribute to enhance firm performance. In addition, characteristics of corporate governance moderate the relationship between RPTs (especially RPTs sales and RPTs purchases) and firm performance, showing that the management function of BOD and supervisory and advisory functions of BOC influence the effects of RPTs on firm performance, especially RPTs sales and RPTs purchases on ROA. Sales and purchases are the firm's important operating activities. Thus, the firm's board members (BOD and BOC members) should pay attention not only to RPTs sales and RPTs purchases, but also to other types of RPTs.

Overall, the key aspects that are needed in relation to the management of RPTs are definition, regulation and disclosure, detection and monitoring of approval process, and sanctions (OECD 2012). Disclosing the reason and business purpose to undertake RPTs, the interest of the firm in undertaking RPTs, and the procedures for the approval of engaging in RPTs, as well as sanctions for non-compliance with the mandatory disclosure, can provide for better interpretation of RPTs in the financial statements, encouraging transparency and preventing transactions that could be

harmful to the firm and its stakeholders (Di Carlo 2014). Disclosure of the firm's policy on the monitoring and approval process for RPTs (Utama & Utama 2014) as well as transfer pricing policies (Wong, Kim & Lo 2015) can also be considered to enhance the transparency on RPTs.

8.4 Limitations of the Study

This study has several limitations. Firstly, this study uses the data of RPTs that are disclosed in the RPTs section of the notes of audited financial statements. Thus, the results of this study are also limited by the disclosure of the RPTs and the inconsistencies in disclosures of RPTs. The omission of significant information about the RPTs of the firm in the RPTs section of the notes of audited financial statements may influence the results. When the firms do not disclose the RPTs in the RPTs section of the notes of the audited financial statement, they are not included in the analysis in this study.

Secondly, this study is also limited by the motive or reason of the firm to undertake RPTs. This study has not explored the motives or reasons of the firm to undertake RPTs. This study only examined the RPTs that are disclosed in the RPTs section of the notes of audited financial statements and can be captured for the analysis. This study has addressed indirectly the tunneling motive by investigating the relationship of RPTs lending and firm performance since RPTs lending are used to facilitate tunneling (Habib, Muhammadi & Jiang 2017; Jian & Wong 2003; Juliarto et al. 2013). Examining the propping motive of the firm engaging in RPTs can be carried out by observing the effects of RPTs in the firms whose firm performance decreases in the previous year but increases in the current year (Williams & Taylor 2013). However, this study does not conduct that analysis since it will reduce a large number of the sample firms.

8.5 Recommendation for Future Research

The findings of this study show that RPTs are extensively undertaken by the sample firms and are very important because they can influence firm performance. Since this study has not observed all aspects of RPTs, this study suggests several potential areas for future research concerning RPTs and corporate governance characteristics on firm performance. Firstly, it would be interesting to examine the relationship between RPTs that are conducted by profitable firms and/or RPTs that are performed by firms in financial difficulties and firm performance (Peng, Wei & Yang 2011) and to examine this in relation to a two board system.

Secondly, this study finds that RPTs liabilities have positive impact on firm performance measured with CFO. This study has not differentiated the RPTs liabilities into RPTs short-term liabilities and RPTs long-term liabilities. Therefore, distinguishing the effects of RPTs short-term liabilities and

RPTs long-term liabilities on firm performance may also provide deeper understanding about the importance of RPTs. With regards to RPTs person, especially in examining family firms as sample firms, distinguishing RPTs person into RPTs with key management persons, RPTs with close family and RPTs with persons who are the firm's shareholders can be explored to obtain better understanding about RPTs.

Thirdly, this study conducts the analysis on the relationship between RPTs and firm performance measured with accounting-based firm measurement (ROA and CFO) and market-based measurement (Tobin's Q). Examining the impact of RPTs on the other measurements of financial health of the firm will also provide better understanding on the importance of RPTs. Other financial health can be measured with Altman's Z-score (Dichev 1998; Mwawughanga & Ochiri 2017) or Ohlson's O-score (Dichev 1998), performance effectiveness (Devinney, Yip & Johnson 2010), other financial ratios, including liquidity (quick ratio, liquidity ratio and cash ratio), profitability (gross profit margin, EBITDA margin and ROE), long-term solvency (short-term debt to total debt and interest coverage ratio), and asset utilisation or turnover ratios (receivable turnover rate, inventory turnover rate, assets turnover rate and equity turnover rate) (Delen, Kuzey & Uyar 2013), firm risk (Becchetti, Ciciretti & Hasan 2015; Mathew, Ibrahim & Archbold 2016) and default risk (Baron 1975; Nam & An 2017; Sun, W & Price 2016; Zeitun & Tian 2007).

Fourthly, this study finds that the management functions of the BOD and supervisory and advisory functions of the BOC are shown through their dimensions such as the size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC. The management functions of the BOD and supervisory and advisory functions of the BOC through dimensions other than those used in this study and the moderating role of those other dimensions of the BOD and BOC to proxy the characteristics of corporate governance can be explored to enrich the study in RPTs, corporate governance and firm performance. Examples of other dimensions of the BOD and BOC are the average age of the BOD and BOC members (Farag & Mallin 2016; Jameson, Prevost & Puthenpurackal 2014; Kryzanowski & Mohebshahedin 2016; Wang, T & Hsu 2013), the tenure of the BOD and BOC members (Chou, Chung & Yin 2013; Farag & Mallin 2016; Guldiken & Darendeli 2016; Kryzanowski & Mohebshahedin 2016; Titova 2016; Wang, T & Hsu 2013), expertise of the BOD and BOC members in finance and accounting (Albring, Robinson & Robinson 2014), technical expertise of the BOD and BOC members, the gender diversity of the BOD and BOC members (Chou, Chung & Yin 2013; Das & Dey 2016; Khan & Vieito 2013; Kryzanowski & Mohebshahedin 2016; Liu, Y, Wei & Xie 2014; Titova 2016), the ethnic or nationality of the BOD and BOC members (Wan Mohammad, Wasiuzzaman & Nik Salleh 2016), education level of the BOD and BOC members (Farag & Mallin 2016), political connection of the BOD and BOC members (Habib, Muhammadi & Jiang 2017; Wang, L 2015), the frequency of attendance of the BOD and BOC members in meetings (Arora & Sharma 2016; Brick &

Chidambaran 2010; Chou, Chung & Yin 2013; Das & Dey 2016; Titova 2016) and the interlocking of the BOD and BOC members (Chou, Chung & Yin 2013; Farag & Mallin 2016).

Fifthly, this study has examined the internal monitoring mechanisms by the BOD and BOC, but has not explored external monitoring mechanisms such as external auditor and listing in the foreign country. According to Gallery, Gallery and Supranowicz (2008), external monitoring is an effective means to restrict the extent of RPTs in the high risk of smaller, newly listed Australian firms. Thus, observing the external monitoring on the relationship of RPTs and firm performance would also provide additional understanding of RPTs.

8.6 Summary of the Thesis

This thesis examines the relationship of RPTs, characteristics of corporate governance, and firm performance in Indonesian public listed firms. Except for RPTs lending on long-term firm performance measured with Tobin's Q and RPTs shareholders on short-term firm performance measured with ROA, this study finds that RPTs have significant positive relationship on firm performance. RPTs based on the status of related party have a positive relationship on firm performance with a different horizon, RPTs person is positively related to long-term firm performance measured with Tobin's Q while RPTs entity is positively associated with short-term firm performance measured with ROA. In addition, RPTs with entity based on the nature of relationship have significant positive relationship with firm performance, such as follows: RPTs associates and joint firms and RPTs other affiliates have significant positive relationships with firm performance measured with short-term firm performance (ROA) but RPTs shareholders are found to have a mixed relationship on firm performance, which are positive with CFO but negative with ROA. Firms with higher RPTs associates and joint firms and RPTs other affiliates have higher short-term firm performance measured with ROA. It seems that firms are involved in these types of RPTs to enhance business activities, which results in higher ROA. However, firms with higher RPTs shareholders seem to have higher CFO and lower ROA. The reason for these different effects of RPTs shareholders may be because most of them are RPTs liabilities, which will have a positive impact on CFO and negative impact on ROA. Overall, this study provides evidence that firms with higher RPTs seem to have better firm performance.

This study also reveals that the majority of characteristics of corporate governance have significant positive relationship with firm performance, with the exception of the size of the BOC on ROA and CFO, size of audit committee and the expertise in finance and/or accounting of audit committee on CFO. The size of the BOD, size of the BOC, total size of the BOD and BOC, independence of the BOC, and committees established in the BOC all have significant positive relationship on firm performance. These characteristics of corporate governance moderate the relationship of RPTs and firm performance. These findings have several implications for the standard/policy setters and

regulators, existing and potential investors who are concerned with the important of RPTs and their disclosure, and firm's board members. This study also has several limitations, which prohibits providing more evidence on the relationships of RPTs, characteristics of corporate governance and firm performance. Several suggestions for future research are also provided.

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APPENDICES

APPENDIX A: Empirical Evidence on the Relationship between RPTs and Firm Performance

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Studies on the Relationship between RPTs and Firm Performance Using Cumulative Abnormal Returns or Industry Adjusted Returns as Independent Variables					
Elizabeth A. Gordon, Elaine Henry, Darius Palia (2004)	US publicly traded firms in year 2000 and 2001	Regression	1. RPTs total number 2. RPTs number with executives 3. RPTs number with non-executive board members 4. RPTs loan 5. RPTs other	Industry adjusted returns	RPTs total number, RPTs executive, RPTs non-executive board member, RPTs loan total, RPTs others total, RPTs loan executive, RPTs loan non-executive board member, and RPTs others non-executive board member significant (-) with industry adjusted returns.
Elizabeth A. Gordon, Elaine Henry (2005)	US publicly traded firms in year 2000 and 2001	Regression	1. The primary party involved in 2. The secondary party involved in 3. The type of transaction a. RPTs direct services b. RPTs purchases of services or goods c. RPTs sales d. RPTs loans e. RPTs fixed rate financing f. RPTs investment g. RPTs other 4. The amount of transaction	Abnormal accruals	1. RPTs executives chairman significant (-) with earning management or adjusted absolute abnormal accrual (Primary party). 2. RPTs executive chairman, RPTs with executive's business chairman, and RPTs with principal owner have significant (-) with earning management (secondary party). 3. RPTs fixed rate financing from (+) with adjusted absolute abnormal accruals (earning management). 4. RPTs management services, RPTs others significant (-) with adjusted absolute abnormal accruals.
Yan_Leung Cheung, P. Raghavendra Rau, Aris Stouraitis (2006)	Hong Kong publicly listed firms during 1998 – 2000	Even study OLS Regression	1. RPTs asset acquisitions, 2. RPTs asset sales, 3. RPTs equity sales, 4. RPTs trading relationships, 5. RPTs cash payment, 6. RPTs cash receipt 7. RPTs subsidiary relationship	CARs	1. Firms announcing RPTs assets acquisitions, RPTs assets sales, RPTs equity sales, RPTs trading relationship, and RPTs cash payment have (-) CARs 2. Firms with RPTs cash receipt and RPTs subsidiary relationship have (+) CARs
Cheung, Y.L, Jing, L, Lu, T, Rau, R, Stouraitis, A (2009)	292 filings by Chinese listed firms during 2001 – 2002 (275 observations)	Event study, Difference analysis Logistic regression	1. RPTs asset acquisitions, 2. RPTs asset sales, 3. RPTs asset swaps, 4. RPTs trading relationship, 5. RPTs cash payments, 6. RPTs cash receipt, 7. RPTs relationships with non-listed subsidiaries.	CARs	1. RPTs asset acquisition significant (-) with CARs [-2,+5] 2. RPTs asset swap significant (-) with CARs [-1,+1] 3. RPTs trading relationship significant (-) with CARs [-1,+1] and CARs [-2,+2] 4. RPTs cash payment significant (-) with CARs [-2,+2] 5. RPTs cash receipt significant (+) with CARs in all windows

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Cynthia Afriani Utama, Sidharta Utama (2009)	Announcements of investment decision from 1 January 2000 to 31 December 2005	Event Study OLS Regression	1. Nature of relation between transacting parties (RPTs or Non-RPTs) 2. Type of firms (group affiliation or non-group affiliation)	CARs	1. Stock market reaction (CARs) for RPTs are lower than for non-RPTs 2. Stock market reaction for group affiliation is lower than in non-group affiliation
Henk Berkman, Rebel A. Cole, Lawrence J. Fu (2010)	887 Chinese listed firm in 1999	Event Study	1. RPTs beneficial 2. RPTs harmful	CARs	1. Firms with higher RPTs have larger CARs compared to firms with lower RPTs
Winnie Qian Peng, K.C. John Wei, Zhishu Yang (2011)	Chinese listed firms during the period 1998-2004	Event study Regression	1. Connected and non-connected transactions (asset acquisition, assets sales, assets displacement, cash payment, equity transfer)	CARs	1. RPTs (connected and STPT) significant (+) with CARs 2. RPTs (connected and rights) (-) with CARs
Julan Du, Qing He, San Wing Yuen (2013)	Hong Kong listed firm for period 1989 – 2008 (60 firms)	OLS Regression	1. RPTs total value	CARs	1. RPTs significant (-) with CARs in the prior going to private firms
Bernard S. Black, Woochan Kim, Hasung Jang, Kyung-Suh Park (2015)	54 Korean large-plus firms (assets from 1 – 4 trillion) as treatment group and 43 Korean mid-size firms (assets 0.5 – 1 trillion) as control group for mid- year 2001 and end year 1998 – 2004	Event study	1. Large-plus positive Expropriation Risk Index (ERI) 2. Large-plus negative ERI 3. Large-plus ERI missing	1. Cumulative market adjusted returns (CMARs) 2. CARs	1. Firms subject to the reform with positive ERI generate higher abnormal returns compared to firms subject to the reform with negative ERI during the period of main reform events.
Studies on the Relationship between RPTs and Firm Performance Using ROA, Tobin's Q, Dividend Yield, Leverage, and Market Value of Equity as Independent Variables					
Tarun Khanna, Krishna Palepu (2000)	India business group firms publicly listed in 1993.	Difference analysis, OLS regression	1. Group affiliated firms 2. Non-group affiliated firms 3. Membership in diversified group	1. Tobin's Q 2. ROA	1. Group member significant (-) with ROA. 2. Membership in most diversified group (more than 7 industries) significant (+) with Tobin's Q 3. Membership in least diversified group (1-4 industries) significant (-) with ROA. 4. Membership in intermediate diversified group (5-7 industries) significant (-) with ROA.
Gerry Gallery, Natalie Gallery, Matthew Supranowicz (2008)	224 commitments test entities (CTEs) in Australia Secutiries Exchange between March 2000 and December 2005 (3.827)	Random effects Regression and Tobit Regression	1. ROA 2. Research & Development (R&D) 3. Ending cash balance and unused financing facilities (FINSLACK)	1. Operating cash flow payment to staff and related supplier	1. ROA and R&D significant (-) with RPP 2. Ending cash balance and unused financing facilities significant (+) with RPP but significant (-) with RPL 3. Operating cash outflows other than RPPs significant (+) with RPP 4. Investing cash outflows other than RPL significant (+) with RPL

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
	quarterly cash flow reports		4. Operating cash outflows other than RPPs (CFOO) 5. Investing cash outflows other than RPL (CFIO)	(RPP) 2. Loan to related parties (RPL)	
Henk Berkman, Rebel A. Cole, Lawrence J. Fu (2009)	875 firms with A-shares listed on the Shanghai Stock Exchange (SHSE) or the Shenzhen Stock Exchange (SZSE) as of year-end 1999 (88 firms issue loan guarantee to related parties).	OLS regression	RPTs loan guarantee	1. Tobin's Q 2. ROA 3. Dividend Yield 4. Leverage	1. RPTs guarantee significant (-) with Tobin's Q and ROA 2. RPTs guarantee significant (+) with leverage
Yenpao Chen, Chien-Hsun Chen, Weiju Chen (2009)	Chinese listed firms in 2002 - 2006	OLS regression	1. RPTs sales 2. RPTs purchase 3. RPTs assets 4. RPTs loan 5. RPTs guarantee 6. RPTs lease 7. RPTs other	1. ROA 2. Tobin's Q	1. RPTs purchase significant (-) with ROA and Tobin's Q and RPTs other significant (-) with Tobin's Q. 2. In no control relationship: RPTs purchase, RPTs loan, and RPTs lease significant (+) with ROA but RPTs lease significant (-) with Tobin's Q, RPTs other significant (-) with ROA. 3. In listed firm as controlling firm: RPTs guarantee significant (+) with ROA 4. In listed firm as controlled firm: RPTs sales significant (-) with ROA; RPTs purchase significant (+) with ROA and Tobin's Q; RPTs loan, RPTs guarantee, and RPTs lease significant (-) with Tobin's Q; RPTs others significant (+) with Tobin's Q.
Joseph Aharony, Jiwei Wang, Hongqi Yuan (2010)	185 newly listed Chinese firms in 1999-2001	OLS Regression	1. RPTs sales 2. Changes in RPTs sales 3. RPTs purchases 4. Changes in RPTs purchases 5. Non RPTs sales	1. ROA 2. Price earnings ratio 3. Change in the net outstanding loans with the parent firm 4. Buy-and-hold return	1. RPTs sales and changes in RPTs sales significant (+) with ROA and price earnings ratio in pre IPO period 2. Changes in RPTs sales significant (+) with the changes in outstanding loan with the parent firm in post-IPO period 3. Changes in RPTs sales significant (-) with market returns 12 months and 24 months post-IPO.
Wenxia Ge, Donal H. Drury, Steve Fortin, Feng Liu, Desmond Tsang (2010)	top 100 Chinese listed firms in 2002 rankings of New Youth Fortune for periode 1997 – 2003	OLS Regression	1. RPTs goods sales 2. RPTs asset sales	Stock price	4. The interaction between EPS and RPTs goods sales significant (-) with stock price during 1997 – 2000. 5. The interaction between EPS and RPTs asset sales significant (-) with stock price during 1997 – 2000

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Mehdi Nekhili, Moêz Cherif (2011)	85 firms listed on the Paris Stock Exchange during the period 2002 - 2005	Regression Analysis	1. RPTs with all related parties; 2. RPTs likely to lead to expropriation; 3. RPTs with subsidiaries and affiliated firms; 4. RPTs with main shareholders, directors and/or managers; 5. RPTs with subsidiaries and firms affiliated to main shareholders, directors and/or managers	Tobin's Q	RPTs directly carried out with the main shareholders, board members and directors (-) with the firm value.
Nancy Huyghebaert, Lihong Wang (2012)	783 listed firms in Shanghai Stock Exchange during 2001 - 2005	OLS Regression	1. RPTs (sales and purchases)	1. Market to Book Ratio 2. EBITDA to sales ratio 3. Stock Liquidity	1. RPTs sales and purchases significant (-) with market to book ratio in the private-controlled firms 2. RPTs sales and purchases significant (-) with firm profitability in the firms with future financial distress
Minjung Kang, Ho-Young Lee, Myung-Gun Lee, Jong Chool Park (2014)	181 listed chaebol firms in Korea from 2003 to 2010 (982 firm-years)	OLS Regression	RPTs	Tobin's Q	1. RPTs have (-) impact on Tobin's Q
Guohua Jiang, Pingui Rao, Heng Yue (2015)	1.308 Chinese listed firms in 2005	OLS Regression Fixed Effects Regression	1. Non-operational fund occupancy (NOFO) to related parties	1. ROA 2. ROE 3. Tobin's Q	1. NOFO significant (-) with ROA, ROE, Tobin's Q
Yezhen Wan, Leon Wong (2015)	90 Chinese listed firms in 2007 – 2009 (45 SOEs and 45 privately controlled)	OLS regression	2. RPTs 3. RPTs tunneling 4. RPTs propping	ROA	RPTs have (-) effect on firm performance
Sunwoo Hwang, Woochan Kim (2016)	34 large Korean chaebol groups in 2000-2011	Fixed effects Regression	1. RPTs sales and purchases 2. RPTs sales 3. RPTs purchases	1. EBITDA 2. EBITDA/ sales 3. Marginal contribution to group control index 4. Equity shareholding index	1. RPTs sales significant (-) with EBITDA in the firms where heirs become major shareholders 2. RPTs sales significant (+) with marginal contribution to group control index and equity shareholding index
Yogesh Chauhan, K. Rajya Lakshmi, Dipanjan Kumar Dey (2016)	84 Indian firms in 2003 – 2013 (755 firm-year observations)	Fixed effects Regression	1. Inter-corporate loan (ICL) 2. Loan guarantee to controlling owner (GURTA)	Future ROA	RPTs (ICL and GURTA) have significant (-) effect on future ROA (ROA_{t+1})

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Ahsan Habib, Abdul Haris Muhammadi, Haiyan Jiang (2017)	Indonesia listed firms for period 2007 – 2013 (1775 firm year observations)	Regression	1. Abnormal RPTs net credit 2. Abnormal RPTs sales	1. One year ahead ROA 2. One year ahead Tobin's Q	Abnormal RPTs net credit significant (-) with one year ahead ROA and one year ahead Tobin's Q
Studies on the Relationship between RPTs and Firm Performance with Using mixed CARs and ROA, Tobin's Q, Dividend Yield, Leverage, or Market Value of Equity as Independent Variables					
Ming Jian and T.J. Wong (2003)	131 Chinese listed firms in year 1997 – 2000 (mining, lumber, chemicals, and building materials)	Regression GMM regression	1. RPTs sales 2. RPTs lending	1. CARs 2. Tobin's Q 3. Market to book ratio	1. RPTs sales significant (+) with CARs 2. RPTs lending (-) with Tobin's Q and market-to-book ratio
Gil S. Bae, Youngsoon S. Cheon, Jon-Koo Kang (2008)	Nonfinancial Korean listed firms affiliated with top 30 chaebols during 1993 – 2001 (630 and 694 observations)	OLS Regression	1. CARs announcing firms affiliated to chaebol 2. ROA changes of announcing firms affiliated to chaebol	1. CARs of non-announcing firms affiliated to chaebol 2. ROA changes of non-announcing firms affiliated to chaebol	1. CARs (ROA changes) announcing firms affiliated to chaebol significant (+) with CARs (ROA changes) of non-announcing firms affiliated to chaebol.
Mark Kohlbeck, Brian W. Mayhew (2010)	1.194 US firms included in 2001 S&P 1500	Regression	1. Firms discloses RPTs 2. Simple RPTs 3. Complex RPTs 4. RPTs director, officer, shareholders 5. RPTs with firm investment	1. Tobin's Q 2. Market value of common shareholders' equity 3. Annual common shareholder return	1. RPTs significant (-) with Tobin's Q, market value of common shareholders' equity 2. RPTs simple significant (-) with Tobin's Q, market value of common shareholders' equity, annual return 3. RPTs loan to director, officer, shareholders significant (-) with Tobin's Q, market value of common shareholders' equity, annual return 4. RPTs simple DOS significant (-) with annual return
Guohua Jiang, Charles M.C. Lee, Heng Yue (2010)	Chinese listed firms during 1996 - 2006	Regression	1. RPTs other receivables	1. Firm market value 2. Returns of portfolio	1. The interaction of RPTs other receivables and ROA (-) with firm market value 2. RPTs other receivable (-) with future returns.

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Adrian C.H. Lei, Frank M. Song (2011)	Chinese listed firms in Hong Kong in 1 January 2002 – 31 December 2004.	Event study Regression	1. RPTs continuing 2. RPTs contractual agreement 3. RPTs assets acquisition 4. RPTs assets disposal 5. RPTs interest acquisition 6. RPTs interest disposal 7. RPTs loan and guarantee 8. RPTs placement 9. RPTs others 10. RPTs expropriating 11. RPTs beneficial	1. CARs 2. Tobin's Q 3. Market to book value	1. RPTs loan and guarantee significant (-) with CARs [0,+5], [-50,+10] 2. RPTs continuing, RPTs contractual agreement, RPTs loan and guarantee, RPTs placement significant (-) with CARs [-10,+10] 3. RPTs asset disposal, RPTs loan and guarantee significant (-) with Tobin's Q 4. RPTs contractual agreement, RPTs loan and guarantee significant (-) with market to book value 5. Firms with RPTs expropriating significant (-) with Tobin's Q and market to book value
Raymond M.K. Wong, Jeong-Bon Kim, Agnes W.Y. Lo (2015)	565 Chinese listed firms during the period of 2002 – 2009 (4.520 firm-year observations)	Regression	1. Abnormal RPTs sales 2. RPTs	1. Industry adjusted Tobin's Q 2. Abnormal Returns	1. RPTs and Abnormal RPTs sales are significant (+) with firm value (industry adjusted Tobin's Q and abnormal returns) 2. The impact of abnormal RPTs on firm value (industry adjusted Tobin's Q) cease to exist for firms with higher percentage of parent director, high government ownership, or tax avoidance incentives

APPENDIX B: Empirical Evidence on the Relationship between Characteristics of Corporate Governance and Firm Performance

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
David Yermack (1996)	452 large US industrial corporation between 1984 and 1991	OLS Regression Fixed-effects Regression	1. Board size 2. Board composition (% outside directors)	1. Tobin's Q 2. Sales to assets 3. ROA 4. ROS	1. Board size has significant (-) on Tobin's Q, sales to assets, ROA, and ROS. 2. Board composition has significant (-) on Tobin's Q
Theodore Eisenberg, Stefan Sundgren, Martin T. Wells (1998)	879 small Finnis firms from 1992 to 1994	Regression	Board size	Industry-adjusted ROA	Board size has significant (-)
April Klein (2002)	S&P 500 Nonfinancial listed firms in 1992-1993 (692 firm years)		Independent directors in board and/or audit committee	Absolute value of adjusted abnormal accruals	Independent directors in board and/or in audit committee significant (-)
Yun W. Park, Hyun-Han Shin (2004)	202 firms listed in Toronto Stock Exchange from 1991 to 1997 (539 firm years)	OLS Regression	1. Proportion of outside board members 2. Board independence 3. Representation of financial intermediaries on the board 4. Representation of active institutional shareholders	Abnormal accrual	1. Proportion of outside board members has significant (+) with earnings management in un-manage earnings above last year earnings. 2. The presence of director from financial intermediaries and the presence of active institutional shareholders have significant (-) with un-manage earnings below zero earnings and below last year earnings.
Irene Karamanou, Nikos Vafeas (2005)	275 Fortune 500 firms from 1995 to 2000	Logistic Regression OLS Regression	1. Proportion of outside directors 2. Board size 3. Board meetings 4. Insider ownership 5. Institutional ownership 6. Proportion of committee outsiders 7. Proportion committee members with financial expertise 8. Committee size 9. Committee meetings	1. Making a management earnings forecast 2. Updating management earnings forecast 3. Management earnings forecast precision 4. Management earnings forecast accuracy 5. Management earnings forecast bias 6. Forecast-induced return 7. Analyst reaction	1. The proportion of outside directors are (+) with probability of making and updating management earnings forecast and in the good news and with forecast induced return and in bad news return; but (-) with probability of management earnings forecast precision and in bad new forecast and with the management earnings forecast accuracy and in good news accuracy. 2. Board size is (+) with probability of updating management earnings forecast; but (-) with management earnings forecast bias and with forecast-induced return and in good news return. 3. Proportion of committee outsiders are (+) with in bad news accuracy and in good news forecast-induced return. 4. Proportion of committee members with financial expertise is (+) with probability of updating management earning forecast; with in good news accuracy; and with forecast-induced return and in bad news forecast-induced return; but (-) with probability of management earnings forecast precision. 5. Committee size is (-) with probability of making management earnings forecast and in bad news condition; with probability of management

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
					earnings forecast precision; and with forecast-induced return, in bad news and good news forecast-induced return; but (+) with in good news accuracy.
Stefan Beiner, Wolfgang Drobetz, Markus M. Schmid, Heimz Zimmermann (2006)	109 Swiss listed firms at the end 2002	OLS Regression 3SLS Regression	1. CG Index 2. Board size	Tobin's Q	OLS and 3SLS: 1. CG has significant (+) 2. Board size has significant (+)
Shijun Cheng (2008)	1,252 firms in Investor Responsibility Research Center (IRRC) from 1996 – 2004 (6,869 firm-year observations)	Regression	1. Board size 2. Board composition (Percentage of independent director)	1. Monthly stock return 2. ROA 3. Tobin's Q	Board size has (-) association with variability in monthly stock return, ROA, and Tobin's Q.
Sanjai Bhagat, Brian Bolton (2008)	US firms from 1990 to 2004 available in IRRC and TCL	OLS Regression 2SLS Regression 3SLS Regression	1. GIM G Index 2. BCF E Index 3. Board independence 4. Board size	1. ROA 2. Stock return 3. Tobin's Q 4. Last 2 years performance 5. Industry performance	1. GIM G Index has significant (-) with current ROA, next year ROA, next 2 year ROA. Lower GIM G Index reflects better government. 2. BCF E Index has significant (-) with current ROA, next year ROA, next 2 year ROA. Lower BCF E Index reflects better government.
Heibatollah Sami, Justin Wang, Haiyan Zhou (2011)	Chinese listed firms during 2001-2003 (1,236 firm year observations)	Regression	1. Composite measure of CG based on common factors	1. ROA 2. ROE 3. Tobin's Q	1. CG significant (+) with ROA, ROE, and Tobin's Q
Musa Mangena, Venancio Tauringana, Eddie Chamisa (2012)	Zimbabwe Stock Exchange 2000 - 2005	GMM Regression	1. Board size 2. Board composition	1. Tobin's Q 2. ROA	1. Proportion of non-executive directors is significant (-) with Tobin's Q and ROA. 2. Board size is significant (+) with Tobin's Q and ROA in post-presidential election period. 3. Proportion of non-executive directors is significant (-) with Tobin's Q and ROA in pre-presidential election period and post-presidential election period.
Nancy Huyghebaert, Lihong Wang (2012)	783 listed firms in Shanghai Stock Exchange during 2001 - 2005	OLS Regression	1. Board size 2. Directors appointed by the controlling shareholders 3. Independent directors	1. Market to Book Ratio 2. EBITDA to sales ratio 3. Stock Liquidity	1. Board size is significant (-) with market-to-book ratio and EBITDA to sales ratio 2. Independent directors significant (-) with stock liquidity in private-controlled firms

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Augustine Duru, Dechun Wang, Yijiang Zhao (2013)	US listed firms in 2002-2008 (4,991 firm years)	OLS Regression 2SLS Regression	1. Board size 2. Board independence	Tobin's Q	OLS Regression 1. Board size significant (-) 2. Board independence insignificant (0) 2SLS Regression 1. Board size insignificant (0) 2. Board independence insignificant (0)
Qi Liang, Pisun Xu, Pornsit Jiraporn (2013)	50 largest Chinese banks during the period 2003-2010	OLS Regression	1. Board size 2. Board independence	1. ROA 2. ROE 3. Pre-provision profit 4. Nonperforming Loan (NPL) ratio 5. Stock of NPLs 6. Net charge off (NCO) ratio 7. Level of NCOs	1. Board size significant (-) with ROA and ROE but insignificant (0) with pre-provision profit, NPL ratio, stock of NPLs, NCO ratio, and level of NCOs 2. Board independence significant (+) with ROA and ROE but significant (-) with stock of NPLs, NCO ratio, level of NCOs and insignificant (0) with pre-provision profit and NPL ratio
Urs Waelchli, Jonas Zeller (2013)	More than 1500 chairmen of the board of unlisted corporation in Switzerland	OLS regression	1. Board independence 2. Board size	1. ROA 2. ROE 3. Net Profit Margin (NPM) 4. Annual return per full-time equivalent employee (ROEMP) 5. Sales to assets	1. Board size has insignificant (-) with ROA, ROE, ROEMP, sales to assets and insignificant (+) with NPM. 2. Board independence has insignificant (-) with ROE, NPM, ROEMP and insignificant (+) with ROA, sales to assets.
Seongpil Ahn, Keshab Shrestha (2013)	Firms in governance and director databases of Investor Responsibility Research Center (IRRC) from 1998 to 2006	OLS regression Median regression	Classified board	Tobin's Q	1. Classified board has significant (-) 2. Classified board improves firm value of the firms with low monitoring cost. 3. Classified board enhances firm value of the firms with higher advisory needs
David H. Erkens, Sarah E. Bonner (2013)	875 firms in S&P 1500 index from 1999 to 2008	Logit regression	Accounting Financial Expert Audit Committee Appointment	1. Firm status 2. Audit fee 3. Past accounting difficulties 4. Earning quality	1. Firm status has significant (-) with the accounting financial expert audit committee appointments. 2. Audit fee has significant (+) with the accounting financial expert audit committee appointments. 3. Past accounting difficulties has significant (+) with the accounting financial expert audit committee appointments. 4. Earning quality has significant (-) with the accounting financial expert audit committee appointments.

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Shams Pathan, Robert Faff (2013)	US bank holding firms from 1997 to 2011	Two-step system GMM OLS Regression	1. Board size 2. Board independence	1. PTOI (pre-tax operating income) 2. ROAA (return on average assets) 3. ROAE (return on average equity) 4. NIM (net interest margin) 5. Tobin's Q ratio 6. Stock return	**Two-step system GMM:** 1. Board size has significant (-) with PTOI, ROAA, ROAE, NIM, Tobin's Q, and stock return; significant (-) with PTOI in small bank; significant (-) with PTOI in low market power bank measured with Herfindahl Index or market share. 2. Board independence has significant (-) with PTOI, ROAA, ROAE, and stock return; significant (-) with PTOI in small bank; significant (-) with PTOI in low market power bank measured with Herfindahl Index or market share. **OLS Regression:** 1. Board size has significant (-) with PTOI, ROAA, ROAE, NIM, Tobin's Q, and stock return during the crisis. (similar to two-step system GMM result) 2. Board independence has significant (-) with PTOI, ROAA, ROAE, and Tobin's Q.
Arun D. Upadhyay, Rahul Bhargava, Sheri D. Faircloth (2014)	Firms in 1500 S&P during 2000-2003 (3,203 firm year observations)	OLS Regression 3SLS Regression	1. Board size 2. Number of monitoring committees 3. Board Independence 4. Financial expert in audit committee	1. Ln Tobin's Q 2. EVA 3. ROA	OLS Regression: 1. Board size significant (-) with Tobin's Q 2. Number of monitoring committees significant (-) with Tobin's Q, EVA, and ROA 3. Board independence significant (+) with Tobin's Q 4. The presence of financial expert in audit committee significant (+) with EVA and ROA 3SLS Regression: 1. Orthogonalised board size significant (-) with Tobin's Q 2. Orthogonalised number of monitoring committees insignificant 3. Board Independence significant (-) with EVA 4. The presence of financial expert in audit committee significant (+) with Tobin's Q, EVA, and ROA
Jerry Sun, Guoping Liu (2014)	S&P 1500 financial firms for year 2008 (91 firms), 2009 (103 firms), and 2010 (104 firms)	OLS Regression	1. Accounting or financial expertise of audit committee 2. Audit committee size 3. Board size 4. Board independence	1. ROA 2. ROE 3. Tobin's Q 4. Stock returns	1. Accounting or financial expertise of audit committee insignificant (0) with ROA, ROE, Tobin's Q, and Stock returns 2. Audit committee size insignificant (0 with ROA, ROE, Tobin's Q, and Tobin's Q 3. Accounting or financial expertise of audit committee does not moderate the relationship between risk taking and firm performance (ROA, ROE, Tobin's Q, and stock returns) 4. Audit committee size moderates the relationship between risk taking and firm performance measured with Tobin's Q but not with ROA, ROE, stock returns 5. Board size significant (-) with ROA and Tobin's Q but insignificant (0) with ROE and stock returns 6. Board independence significant (-) with ROA and Tobin's Q but insignificant (0) with ROE and stock returns

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Mihail K. Miletkov, Annette B. Poulsen, M. Babajide Wintoki (2014)	Listed firms in 80 non US countries in 2001-2011 (58,287 firm-years)	OLS Regression Fixed Effects Regression Dynamic GMM 2SLS Regression	1. Board size 2. Board independence	The sum of shares held by foreign investors	1. Board size insignificant (0) 2. Board independence significant (+)
Melvin Jameson, Andrew Prevost, John Puthenpurackal (2014)	1,796 Indian listed firms as of quarter ending June 30, 2011	OLS Regression Treatment effects model	1. Board size 2. Outside director (board independence)	Tobin's Q	OLS Regression 1. Board size significant (+) 2. Board independence insignificant 0) Treatment effect model: 1. Board size significant (+) with Tobin's Q in family controlled firms 2. Board independence insignificant (0) with Tobin's Q in family controlled firms and founder controlled firms
Ronald W. Masulis, Shawn Mobbs (2014)	S&P 1500 firms for the years 1997-2006	Fixed Effect Regression	1. Board independence	1. ROA 2. Industry adjusted ROA 3. Ln Tobin's Q 4. Ln Industry adjusted Tobin's Q	1. Board independence insignificant (0) with ROA, industry adjusted ROA, Ln Tobin's Q, and industry adjusted Tobin's Q.
Yu Liu, Zuobao Wei, Feixue Xie (2014)	2,000 Chinese listed firms for the period 1999-2011 (16.964 firm years)	Fixed Effects Regression FE with lagged FE with IV Arellano-Bond	1. Board size 2. Board independence	1. Return on sales (net income/sales) 2. ROA (net income/assets)	1. Board size insignificant (0) with ROS and ROA, except for Board size on ROA when Arellano-Bond applied 2. Board independence significant (+) with ROS and ROA when FE, FE with lag, and FE with IV applied
Yoon K. Choi, Seung Hun Han, Sangwon Lee (2014)	Non-financial Korean listed firms from Jan 2001-December 2004	OLS Regression	1. Announcement of audit committee appointment 2. Financial literacy of appointed audit committee member	Cumulative stock returns	1. Announcement of audit committee appointment significant (-) 2. When the audit committee is independent, announcement of audit committee appointment significant (+) 3. Financial literacy of appointed audit committee member significant (-) 4. Financial literacy of appointed audit committee member moderate self-interested behavior to some degree
Lihong Wang (2015)	960 Chinese listed firms for the period 2003-2012 (8.594 firm-years)	Fixed effects Regression	1. Board size 2. Independent directors	1. Market-to-book ratio 2. Debt ratio	1. Board size significant (-) with market-to-book ratio 2. Board size significant (+) with debt ratio 3. Independent directors significant (+) with market-to-book ratio in privately controlled firms
Yu Liu, Mihail K. Miletkov, Zuobao Wei, Tina Yang (2015)	Chinese listed firms for the period 1999-2012	Fixed Effects Regression Difference-in-Difference 2SLS Regression	1. Board Independence 2. Board size	1. ROA 2. ROE	1. Board independence significant (+) with ROA and ROE 2. Board size significant (-) with ROE in FE and DID regression but insignificant (0) with ROA

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
		GMM Regression			
Arindam Das, Sourav Dey (2016)	75 large Indian listed firms in 2014	Step-wise multiple regression	1. Board size 2. Board independence	1. Dividend to profit after tax ratio 2. Tobin's Q	1. Board size significant (+) with Tobin's Q but insignificant (0) with dividend to profit after tax ratio 2. Board independence insignificant (0) with dividend to profit after tax ratio and Tobin's Q
Akshita Arora, Chandan Sharma (2016)	1,922 Indian manufacturing listed firms for the period 2001-2010	Fixed Effects Regression System GMM Regression	1. Board size 2. Board independence	1. ROA 2. ROE 3. Tobin's Q 4. Net profit margin 5. Stock returns	Fixed Effects Regression: 1. Board size insignificant (0) with ROA, ROE, net profit margin, Tobin's Q and stock returns 2. Board independence insignificant (0) with ROA, ROE, net profit margin, and stock returns but significant (-) with Tobin's Q GMM Regression: 1. Board size significant (-) with ROA, significant (+) with Tobin's Q, insignificant (0) with ROE, net profit margin, and stock returns 2. Board independence significant (-) with Tobin's Q, insignificant (0) with ROA, ROE, net profit margin, and stock returns.
Orhun Guldiken, Izzet Sidki Darendeli (2016)	100 publicly traded large firms in high technology industries for the period 2005-2010	GMM Regression	Board size	Research and development intensity	Board size insignificant (0)
Hisham Farag, Chris Mallin (2016)	892 nonfinancial Chinese listed firms for the period 1999-2009 (8.006 firm years)	Fixed Effects Regression GMM Regression	1. Board size 2. Board Independence 3. Number of board committees	1. ROA 2. ROE	1. Board size insignificant (0) with ROA and ROE 2. Board independence significant (+) with ROA and ROE 3. Number of board committees significant (+) with ROE
Lars Helge Haβ, Sofia Johan, Denis Schweizer (2016)	1,384 Chinese listed firms for the period 2001-2011 (11,928 firm years)	Pool OLS Regression Fixed Effect Regression Arellano-Bond Regression	1. BOC size 2. Number of commissions 3. Board independence	Performance persistence	1. BOC size significant (+) with short term and long term performance persistence 2. Number of committees insignificant (0) with short term performance persistence but significant (+) with long term performance persistence (pool OLS) and significant (-) with long term performance persistence (FE) 3. Board independence insignificant (0) with short term persistence (OLS and FE) significant (-) with short term performance persistence (AB) but significant (-) with long term persistence (FE)
John C. Adams, Takeshi Nishikawa, Ramesh P. Rao (2016)	1,026 US actively managed equity fund for the period 1998-2007	OLS Regression 2SLS Regression	1. Board size 2. Board independence	Carhart 4 factor Alpha (mutual fund performance)	1. Board size significant (+) 2. Board independence insignificant (0) 3. The presence of large board moderate negatively team performance 4. The existence of higher proportion of independent directors moderate positively team performance

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
Mike Adams, Wei Jiang (2016)	92 UK property-casualty-insurance firms during 1999-2012 (1.168 firm years)	2SLS Regression	1. Independent outside directors on the board 2. Grey outside directors on the board 3. Outside financial experts on the board 4. Outside directors with insurance experience on the boards 5. Board size	1. Profit margin 2. ROA 3. ROE 4. Solvency position (leverage) 5. Loss ratio 6. Combined operating ratio	1. Independent outside directors insignificant (0) with all firm performance 2. Grey outside directors significant (-) with solvency position but insignificant (0) with other firm performance measurements 3. Outside financial experts significant (+) with profit margin, ROA, ROE and significant (-) with solvency position, loss ratio, combined operating ratio 4. Outside directors with insurance experience significant (+) with profit margin 5. Board size significant (+) with profit margin and ROA
Mariateresa Torchia, Andrea Calabro (2016)	100 Italian listed firms in 2007	Regression	1. Board size 2. Board independence 3. Audit committee size	1. Financial transparency and disclosure	1. Board size significant (-) with financial transparency and disclosure 2. Board independence significant (+) with financial transparency and disclosure 3. Audit committee size significant (+) with financial transparency and disclosure
Erick Rading Outa, Nelson M. Waweru (2016)	Kenyan listed firms during 2002-2014 (520 firm year observations)	Random Effects Regression	1. Board Evaluation 2. Board Disclosure 3. Board Balance 4. CG index	1. ROA 2. Tobin's Q	1. CG index significant (+) with ROA and Tobin's Q 2. Board evaluation significant (+) with ROA and Tobin's Q 3. Board Disclosure significant (+) with ROA and Tobin's Q
Mohamed Khalil, Aydin Ozkan (2016)	125 Egyptian listed firms for the period 2005-2012 (1.005 firm years)	Fixed Effects Regression	1. Board size 2. Board independence 3. Audit committee composition (dummy variable)	Absolute discretionary accruals	1. Board size significant (-) with absolute discretionary accruals (earning management) 2. Board independence insignificant (0) with absolute discretionary accruals (earning management) 3. Audit committee composed all non-executive directors significant (-) with absolute discretionary accruals (earnings management)
Muhammad Shaukat Malik, Durayya Debaj Makhdoom (2016)	100 Fortune Global 500 firms for the period 2005-2012	Random Effects Regression	1. Board size 2. Board independence	1. Tobin's Q 2. ROA 3. Stock returns	1. Board size significant (-) with Tobin's Q, ROA, and stock returns 2. Board independence significant (+) with Tobin's Q, ROA, and stock returns
Nazim Hussain, Ugo Rigoni, Rene P. Orij (2016)	100 US firms from high performance Global Fortune 2013 list during 2007-2011 (152 reports)	Fixed Effects Regression for economic and environmental sustainability performance Random Effect Regression	1. Board size 2. Board independence	1. Economic sustainability performance 2. Environmental sustainability performance 3. Social sustainability performance	1. Board size insignificant (0) with economic, environmental, and social sustainability performance 2. Board independence insignificant (0) with economic sustainability performance but significant (+) with environmental and social sustainability performance
Sudha Mathew, Salma Ibrahim, Stuart Archbold (2016)	Large UK firms in FTSE 350 Index from 2005 to 2010	GLS Random Effects Regression OLS lagged board variables	1. Board size 2. Board independence	1. Total risk 2. Assets return risk	1. Board size significant (-) with total risk and asset return risk 2. Board independence insignificant (0) with total risk and asset return risk

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
		3SLS Regression			
Lawrence Kryzanowski, Mahmood Mohebshadedin (2016)	US closed-end funds (CEFs) during 1994-2013	OLS Regression Fixed Effects Regression Fama-MacBeth System-GMM Regression	1. Board independence	1. CEFs expense ratio 2. Benchmark-adjusted share excess returns	1. Board independence significant (-) with CEFs expense ratio and benchmark-adjusted share excess returns
Wan Masliza Wan Mohammad, Shaista Wasiuzzaman, Nik Mohamad Zaki Nik Salleh (2016)	201 Malaysian listed firms for the period 2004-2009 (1,206 firm years)	Fixed Effects Regression	1. Board size 2. Board independence	1. Absolute discretionary accruals (earnings management)	1. Board independence insignificant (0) with earnings management but significant (+) with earnings management before Revised Malaysian Code on Corporate Governance implemented (2007) 2. Board size significant (+) with earnings management
Yogesh Chauhan, K. Rajya Lakshmi, Dipanjan Kumar Dey (2016)	84 Indian firms in 2003 – 2013 (755 firm-year observations)	Fixed effects Regression 3SLS	1. CG Index 2. Founder ownership 3. Board Index 4. Audit Committee Index 5. Remuneration Committee Index 6. General Meeting Index 7. Disclosure Index	1. Tobin's Q 2. Price to book value ratio (PB) 3. ROA	1. CG Index significant (+) with Tobin's Q, PB, and ROA 2. Founder ownership influences the relationship between CG practices and firm performance (Tobin's Q and PB). 3. Board Index significant (+) with Tobin's Q.
Yulia Titova (2016)	Publicly traded US commercial banks for the period 2007-2013	OLS Regression	1. Board size 2. Board independence	Cost inefficiency	1. Board size significant (-) 2. Board independence significant (-)
Jigao Zhu, Kangtao Ye, Jennifer Wu Tucker, Kam (Johnny) C. Chan (2016)	1,512 Chinese listed firms for the period 2006-2009 (4,998 firm years)	OLS Regression Fixed Effects Regression 2SLS Regression	1. Ranking of Independent director 2. Board size 3. Board independence	Tobin's Q	1. Independent director ranking significant (+) 2. Board size insignificant (0) 3. Board independence significant (+)
Yuanto Kusnadi, Kwon Sin Leong, Themin Suwardy, Jiwei Wang (2016)	423 Singapore listed firms for year 2010	OLS Regression	1. Audit committee independence 2. Fully independent AC 3. AC size 4. Accounting expertise of AC 5. Financial expertise of AC 6. Supervisory expertise of AC 7. Accounting only	Accrual quality (Financial reporting quality)	1. Audit committee independence insignificant (0) 2. Fully independent audit committee insignificant (0) 3. Audit committee size significant (-) 4. Accounting expertise of audit committee significant (+) 5. Financial expertise of audit committee insignificant (0) 6. Supervisory expertise of audit committee insignificant (0) 7. Accounting only expertise of audit committee insignificant (0) 8. Accounting and financial expertise of AC significant (+) 9. Accounting, financial, and supervisory expertise of audit committee significant (+)

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
			expertise of AC 8. Accounting and financial expertise of AC 9. Accounting and supervi sory expertise of AC 10. Accounting, financial, and supervisory expertise of AC		
Andrews Owusu, Charlie Weir (2016)	35 Ghanaian listed firms for the period 2000-2009 (258 firm years)	Fixed Effects Regression 2SLS Regression	1. CG Index 2. Board composition index 3. Audit committee index 4. Remuneration committee index 5. Shareholders right index 6. Financial affairs and auditing index 7. Disclosure index	1. ROA 2. ROE 3. Tobin's Q	1. CG index significant (+) with ROA, ROE and Tobin's Q 2. Board composition index insignificant (0) with ROA and Tobin's Q 3. Audit committee Index significant (+) with ROA and Tobin's Q 4. Remuneration committee index significant (+) with ROA and Tobin's Q 5. Shareholders right index significant (+) with ROA and Tobin's Q 6. Financial affairs and auditing index significant (+) with ROA 7. Disclosure index significant (+) with ROA and Tobin's Q
Dan Lin, Lu Lin (2016)	Canadian listed firms for the period 2009-2012 (452 firm years)	Random Effects Regression	Corporate governance score	Free cash flow	Corporate governance significant (+)
Mustafa A. Dah (2016)	Firms in recession period 2001, 2007, 2008, and 2009 with available data in Campustat, ExecuComp, RiskMetrics (9,295, 9,870, 9,214, 8,593 firm years)	Regression 2SLS Regression	1. Board size 2. Board independence	Industry adjusted Tobin's Q	1. Board size significant (-) 2. Board independence significant (-)
Citrawati Jatiningrum, Mohamad Ali Abdul-Hamid, Oluwatoyin Muse Johnson Popoola (2016)	35 manufacture Indonesia listed firms for the period 2009-2013	OLS Regression	1. BOD size 2. BOC size 3. BOC Independence 4. Audit committee	Discretionary Accruals (Earnings management)	1. BOD size significant (-) 2. BOC size significant (-) 3. BOC independence significant (-) 4. Audit committee insignificant (0) 5. Independent audit committee insignificant (0)
Sandra Cavaco, Patricia Crifo, Antoine Rebérioux, Gwenael Roudaut (2017)	107 French listed firms and 1279 director sitting for the period 2006-2011	Fixed Effects Regression Fixed Effects Quantile Regression	1. Board independence 2. Proportion of independent directors 3. Supervisory board 4. Board size 5. Industry expert	1. ROA 2. ROE	Fixed Effects Regression: 1. Board independence significant (-) with ROA and ROE 2. Proportion of independent directors insignificant (0) with ROA and ROE 3. Supervisory board insignificant (0) with ROA and ROE 4. Board size insignificant (0) with ROA and ROE 5. Interaction between board independence and industry expert of director significant (+) with ROA and ROE

Author	Data	Research Methodology	Independent Variables	Dependent Variables	Findings
					Fixed Effects Quantile Regression: 1. Board independence significant (+) with ROA and ROE 2. Industry expert of directors significant (-) with ROE in quantile 20^{th}, 60^{th}, 70^{th}, and 90^{th} but insignificant (0) with ROA 3. Financial expert directors significant (+) with ROA only in quantile 20^{th} but insignificant with ROE

APPENDIX C: Empirical Evidence on the Relationship of RPTs and Characteristics of Corporate Governance on Firm Performance

Author	Data	Research Methodology	RPTs Variables	CG Variables	Findings
Elizabeth A. Gordon, Elaine Henry, Darius Palia (2004)	US publicly traded firms in year 2000 and 2001	Tobit Regression	1. RPTs total number 2. RPTs number with executives 3. RPTs number with non-executive board members	1. CEO compensation 2. Board size 3. CEO duality 4. Insider on the board (non-independent board) 5. Outside ownership 6. Creditors	1. CEO option significant (+) with RPTs executives (regression all CG variables provide the same results). 2. CEO ownership significant (+) with RPTs total number and RPTs executives (regression all CG variables provide sign (+) only with RPTs executives). 3. Board size significant (+) with RPTs total number, RPTs executives, RPTs non-executive board member (regression all CG variables: Board size significant (+) with RPTs executives and RPTs non-executives board member). 4. Non-independent board significant (+) with RPTs total number and RPTs executives (regression all CG variables provide the same results). 5. CEO duality significant (+) with RPTs executives (regression all CG variables give the same results). 6. Fee to board non-executive members significant (-) with RPTs total number, RPTs executives, RPTs non-executive board member (regression all CG variables give the same results). 7. Stock to directors significant (-) with RPTs total number, RPTs executives (regression all CG variables provide the same results). 8. Large outside shareholder ownership significant (-) with RPTs total number, RPTs executives, RPTs non-executive board member (regression all CG variables provide the same results except for RPTs non-executive board member is insignificant). 9. Leverage significant (-) with RPTs total number and RPTs non-executive board member (regression all CG variables provide the same results).
Gerry Gallery, Natalie Gallery, Matthew Supranowicz (2008)	224 commitments test entities (CTEs) in Australia Secutiries Exchange in March 2000 and December 2005 (3.827) quarterly cash flow reports	Random effects Regression and Tobit Regression	1. Operating cash flow payment to staff and related supplier (RPP) 2. Loan to related parties (RPL)	1. Independent (non-executive) director 2. The chairman status (independent or not) 3. The external auditor	1. Independent director significant (-) with RPP

Author	Data	Research Methodology	RPTs Variables	CG Variables	Findings
Yan-Leung Cheung, Yuehua Qi, P. Raghavendra Rau, Aris Stouraitis (2009)	Hong Kong listed firms during 1998 - 2000	Regression	1. RPTs asset acquisition 2. RPTs asset sales 3. Non-RPTs asset acquisition 4. Non-RPTs asset sales	1. Main shareholder ownership 2. CEO duality 3. Non-executive directors 4. Audit committee 5. The number of analysts following the firm 6. Family ownership 7. Pyramid structure 8. Cash flow right and control right	1. Main shareholder ownership significant (-) with price in RPTs asset acquisition and non-RPTs asset acquisition. 2. Audit committee significant (-) with price in RPTs asset acquisition. 3. The number of analysts following the firm significant (-) with price in RPTs asset acquisition. 4. Family ownership significant (+) with price in general asset acquisition. 5. Pyramid ownership structure significant (+) with price in general asset acquisition but significant (-) with price in RPTs asset acquisition. 6. Audit committee significant (+) with price in RPTs asset sales.
Agnes W.Y. Lo, Raymond M.K. Wong, Michael Firth (2010)	Shanghai Stock Exchange listed firms in year 2004	Regression	1. Gross profit RPTs sales over non-RPTs sales 2. RPTs sales	1. Independent Directors 2. Directors that represent parent firm 3. Audit committee 4. Financial expert on the audit committee	1. Independent directors significant (-) with the manipulation transfer price and earning management. 2. Directors that represent parent firm significant (+) with the manipulation transfer price and earning management. 3. Financial expert in audit committee significant (-) with earning management.
Yin-Hua Yeh, Pei-Gi Shu, Yu-Hui Su (2012)	Taiwan listed firms in the year 1996 – 2008	Regression	1. RPTs sales 2. RPTs lending and guarantees 3. RPTs borrowing	1. CG index 2. Cash flow rights 3. Deviation	1. CG is (-) with all types of RPTs 2. Cash flow rights (-) with RPTs sales and RPTs lending and guarantee 3. Board control-cash deviation (+) with RPTs
Bernard S. Black, Woochan Kim, Hasung Jang, Kyung-Suh Park (2015)	104 Korean firms (in which 41 large firms) 1998 - 2004	Regression – firm fixed effect	1. RPTs 2. RPTs sales and purchases 3. RPTs/sales	Korean Corporate Governance Index (KCGI)	1. KCGI moderates the effects of RPTs on firm value 2. KCGI increases the sensitivity of firm profitability to industry profitability
Guohua Jiang, Pingui Rao, Heng Yue (2015)	1.308 Chinese listed firms in 2005	Probit (Tobit) Regression	1. Non-operational fund occupancy	1. Board size 2. Independence of board 3. Board's ownership	1. Board size and independence of board insignificant with tunneling activities through non-operational fund occupancy 2. Board's ownership significant (-) with non-operational fund occupancy
Lihong Wang (2015)	960 Chinese listed firms during 2003-2012 (8.594 firm-years)	Fixed effects Regression	1. RPTs purchases goods and services	1. Board size 2. Independent directors 3. Political connected independent directors 4. Political connected	1. Board size significant (+) with RPTs purchases of goods and services 2. Independent directors significant (-) with RPTs purchases of goods and services 3. Political connected independent directors significant (+) with RPTs purchases of goods and services 4. Political connected independent board of directors insignificant (0) with RPTs purchases of goods and services

Author	Data	Research Methodology	RPTs Variables	CG Variables	Findings
				board of directors	
Yogesh Chauhan, K. Rajya Lakshmi, Dipanjan Kumar Dey (2016)	84 Indian firms in 2003 – 2013 (755 firm-year observations)	Fixed effects Regression	1. Inter-corporate loan (ICL) 2. Loan guarantee to controlling owner (GURTA)	1. CG Index 2. Board Index 3. Audit Committee Index 4. Disclosure Index 5. General Meeting Index 6. Remuneration Committee Index	1. CG has significant (-) effects on RPTs (ICL and GURTA) 2. Board, Audit committee, Disclosure, General meeting have significant (-) effects on RPTs (GURTA) while only Disclosure has significant (-) on ICL. 3. CG moderates the negative effect of RPTs (ICL and GURTA)

APPENDIX D: List of Sample Firms

No	Firm Code	Firm Name
1	AALI	PT Astra Argo Lestari, Tbk
2	ABBA	PT Mahaka Media, Tbk
3	ACES	PT Ace Hardware Indonesia, Tbk
4	ADHI	PT Adhi Karya (Persero), Tbk
5	AKRA	PT AKR Corporindo, Tbk
6	AMFG	PT Asahimas Flat Glass, Tbk
7	ANTM	PT Aneka Tambang (Persero), Tbk
8	APOL	PT Arpeni Pratama Ocean Line, Tbk
9	ASII	PT Astra International, Tbk
10	ASRI	PT Alam Sutera Realty, Tbk
11	AUTO	PT Astra Otoparts, Tbk
12	BISI	PT BISI International, Tbk
13	BKSL	PT Sentul City, Tbk
14	BMTR	PT Global Mediacom, Tbk
15	BNBR	PT Bakrie & Brothers, Tbk
16	BTEL	PT Bakrie Telecom, Tbk
17	CSAP	PT Catur Sentosa Adiprana, Tbk
18	CTRA	PT Ciputra Development, Tbk
19	CTRP	PT Ciputra Property, Tbk
20	CTRS	PT Ciputra Surya, Tbk
21	CTTH	PTCitatah, Tbk
22	DART	PT Duta Anggada Realty, Tbk
23	DGIK	PT Nusa Konstruksi Enjiniring, Tbk
24	DILD	PT Intiland Development, Tbk
25	DNET	PT Indoritel Makmur, Tbk
26	DVLA	PT Daria-Varia Laboratoria, Tbk
27	ELTY	PT Bakrieland Development, Tbk
28	EPMT	PT Enseval Putra Megatrading, Tbk
29	EXCL	PT XL Axiata, Tbk
30	GGRM	PT Gudang Garam, Tbk
31	GJTL	PT Gajah Tunggal, Tbk
32	HERO	PT Hero Supermarket, Tbk
33	HMSP	PT HM Sampoerna, Tbk
34	IMAS	PT Indomobil Sukses Internasional, Tbk
35	INDF	PT Indofood Sukses Makmur, Tbk
36	INTA	PT Intraco Penta, Tbk
37	INTP	PT Indocement Tunggal Prakarsa, Tbk
38	ISAT	PT Indosat, Tbk
39	JIHD	PT Jakarta International Hotels & Development, Tbk
40	JKON	PT Jaya Konstruksi Manggala Pratama, Tbk
41	JPFA	PT JAPFA Comfeed Indonesia, Tbk

No	Firm Code	Firm Name
42	JRPT	PT Jaya Real Property, Tbk
43	JSMR	PT Jasa Marga, Tbk
44	JSPT	PT Jakarta Setiabudi Internasional, Tbk
45	KLBF	PT Kalbe Farma, Tbk
46	KONI	PT Perdana Bangun Pusaka, Tbk
47	KPIG	PT Global Land Development, Tbk
48	LPCK	PT Lippo Cikarang, Tbk
49	LPKR	PT Lippo Karawaci, Tbk
50	LSIP	PT PP London Sumatra Indonesia, Tbk
51	LTLS	PT Lautan Luas, Tbk
52	MAPI	PT Mitra Adiperkasa, Tbk
53	MDLN	PT Modernland Realty, Tbk
54	MDRN	PT Modern Internasional, Tbk
55	MERK	PT Merck, Tbk
56	MICE	PT Multi Indocitra, Tbk
57	MLBI	PT Multi Bintang Indonesia, Tbk
58	MNCN	PT Media Nusantara Citra, Tbk
59	MTDL	PT Metrodata Electronics, Tbk
60	PLIN	PT Plaza Indonesia Realty, Tbk
61	POOL	PT Pool Advista Indonesia, Tbk
62	PTBA	PT Bukit Asam (Persero), Tbk
63	PWON	PT Pakuwon Jati, Tbk
64	RUIS	PT Radiant Utama Interinsco, Tbk
65	SCBD	PT Danayasa Arthatama, Tbk
66	SCMA	PT Surya Citra Media, Tbk
67	SDPC	PT Millennium Pharmacon International, Tbk
68	SGRO	PT Sampoerna Agro, Tbk
69	SHID	PT Hotel Sahid Jaya, Tbk
70	SIPD	PT Sierad Produce, Tbk
71	SKLT	PT Sekar Laut, Tbk
72	SMAR	PT SMART, Tbk
73	SMCB	PT Holcim Indonesia, Tbk
74	SMGR	PT Semen Gresik (Persero), Tbk
75	SMMT	PT Golden Eagle Energy, Tbk
76	SMRA	PT Summarecon Agung, Tbk
77	SMSM	PT Selamat Sempurna, Tbk
78	SONA	PT Sona Topas Tourism Industry, Tbk
79	SSIA	PT Surya Semesta Internusa, Tbk
80	TCID	PT Mandom Indonesia, Tbk
81	TGKA	PT Tigaraksa Satria, Tbk
82	TIRA	PT Tira Austenite, Tbk
83	TLKM	PT Telkom Indonesia (Persero), Tbk
84	TMAS	PT Pelayaran Tempuran Mas, Tbk
85	TMPO	PT Tempo Inti Media, Tbk
86	TOTL	PT Total Bangun Persada, Tbk

No	Firm Code	Firm Name
87	TOTO	PT Surya Toto Indonesia, Tbk
88	TURI	PT Tunas Ridean, Tbk
89	UNSP	PT Bakrie Sumatera Plantations, Tbk
90	UNTR	PT United Tractors, Tbk
91	UNVR	PT Unilever Indonesia, Tbk
92	WEHA	PT Panorama Transportasi, Tbk
93	WICO	PT Wicaksana Overseas International, Tbk
94	WIKA	PT Wijaya Karya (Persero), Tbk

APPENDIX E: Results of OLS Regression for the Durbin-Wu-Hausman Test

Panel A.1. RPT TOTAL (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	RPTTOTAL			RPTTOTAL			RPTTOTAL		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2049 (1.2375)	0.1961 (1.1794)	0.1858 (1.1165)	0.1902 (1.1414)	0.1760 (1.0513)	0.1538 (0.9192)	0.1949 (1.2015)	0.1834 (1.1255)	0.1681 (1.0315)
RPTTOTAL(-1)	0.9036 *** (48.9453)	0.9091*** (49.5687)	0.9101*** (49.4913)	0.9043 *** (48.9697)	0.9104 *** (49.6819)	0.9119 *** (49.6236)	0.9023 *** (48.6622)	0.9080 *** (49.2888)	0.9090 *** (49.2149)
BODSIZE	0.0370 (1.3329)	0.0398 (1.4173)	0.0457 (1.6456)						
BOCSIZE				0.0302 (1.0021)	0.0296 (0.9758)	0.0308 (1.0155)			
BOARDSIZE							0.0535 (1.4600)	0.0556 (1.5058)	0.0619 * (1.6841)
ROA(-1)	0.1892 ** (2.3248)			0.2027 ** (2.5088)			0.1923 ** (2.3728)		
CFO(-1)		0.0910 (1.1456)			0.1083 (1.3824)			0.0947 (1.2001)	
Tobin's Q(-1)			-0.0007 (-0.1489)			-0.0002 (-0.0389)			-0.0006 (-0.1379)
FSIZE	-0.0120 * (-1.8698)	-0.0109* (-1.7041)	-0.0105* (-1.6302)	-0.0110 * (-1.6947)	-0.0096 (-1.4711)	-0.0084 (-1.2904)	-0.0139 ** (-1.9837)	-0.0127 * (-1.8184)	-0.0122 * (-1.7469)
LEVERAGE	0.1542 *** (4.3247)	0.1282*** (3.8244)	0.1235*** (3.6884)	0.1503 *** (4.2345)	0.1224 *** (3.6865)	0.1158 *** (3.4995)	0.1544 *** (4.3332)	0.1278 *** (3.8215)	0.1225 *** (3.6710)
GROWTH	0.0429 * (1.7512)	0.0386 (1.5761)	0.0370 (1.5112)	0.0446 * (1.8182)	0.0402 (1.6371)	0.0382 (1.5538)	0.0444 * (1.8122)	0.0401 (1.6378)	0.0386 (1.5748)
R-squared	0.8232	0.8219	0.8215	0.8229	0.8216	0.8209	0.8233	0.8220	0.8215
Adjusted R-squared	0.8213	0.8120	0.8196	0.8210	0.8196	0.8190	0.8214	0.8201	0.8196
F-statistic	432.2158	428.3952	427.1906	431.4898	427.4101	425.6327	432.5492	428.6366	427.3096
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel A.2. RPT TOTAL (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 4			Model 5		
	RPTTOTAL			RPTTOTAL		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1344 (0.8607)	0.1229 (0.7822)	0.1009 (0.6429)	0.1409 (0.8825)	0.1376 (0.8554)	0.1083 (0.6748)
RPTTOTAL(-1)	0.9014 *** (49.1115)	0.9079*** (49.8719)	0.9089 *** (49.6853)	0.9048 *** (49.3197)	0.9108 *** (50.0778)	0.9125 *** (50.0051)
INDBOC	-0.2290 *** (-2.6556)	-0.2227** (-2.5696)	-0.2215 ** (-2.4857)			
BOCCOM				0.0609 * (1.6969)	0.0571 (1.5859)	0.0578 (1.6008)
ROA(-1)	0.2213 ** (2.7448)			0.2033 ** (2.5220)		
CFO(-1)		0.1298* (1.6575)			0.1200 (1.5347)	
Tobin's Q(-1)			0.0026 (0.5798)			-0.0001 (-0.0149)
FSIZE	-0.0043 * (-0.7728)	-0.0030 (-0.5416)	-0.0019 (-0.3432)	-0.0085 * (-1.5360)	-0.0074 (-1.3385)	-0.0059 (-1.0673)
LEVERAGE	0.1545 *** (4.3727)	0.1247*** (3.7750)	0.1189 *** (3.6067)	0.1490 *** (4.1861)	0.1209 *** (3.6411)	0.1140 *** (3.4391)
GROWTH	0.0417 * (1.7101)	0.0371 (1.5232)	0.0340 (1.3923)	0.0419 * (1.7147)	0.0376 (1.5405)	0.0353 (1.4447)
R-squared	0.8248	0.8233	0.8226	0.8251	0.8238	0.8231
Adjusted R-squared	0.8230	0.8214	0.8207	0.8232	0.8219	0.8217
F-statistic	437.1729	432.6791	430.4154	435.5539	431.7808	429.5621
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.1. RPT SALES (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 6			Model 7			Model 8		
	RPTSALES			RPTSALES			RPTSALES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1298 *	0.1295 *	0.1322 *	0.0866	0.0871	0.0904	0.1082	0.1079	0.1113
	(1.8719)	(1.8666)	(1.9056)	(1.2425)	(1.2466)	(1.2979)	(1.5965)	(1.5902)	(1.6426)
RPTSALES(-1)	0.9050 ***	0.9040 ***	0.9035 ***	0.9199 ***	0.9191 ***	0.9187 ***	0.9073 ***	0.9065 ***	0.9059 ***
	(52.9294)	(53.0686)	(52.9590)	(56.1804)	(56.4271)	(56.5928)	(53.3114)	(53.4898)	(53.4333)
BODSIZE	0.0374 ***	0.0378 ***	0.0362 ***						
	(3.0537)	(3.0692)	(2.9592)						
BOCSIZE				0.0152	0.0152	0.0150			
				(1.1918)	(1.1954)	(1.1786)			
BOARDSIZE							0.0445 ***	0.0449 ***	0.0435 ***
							(2.7835)	(2.7928)	(2.7161)
ROA(-1)	-0.0306			-0.0197			-0.0266		
	(-0.9026)			(-0.5804)			(-0.7873)		
CFO(-1)		-0.0280			-0.0128			-0.0228	
		(-0.8444)			(-0.3882)			(-0.6897)	
Tobin's Q(-1)			-0.0001			0.0004			0.0000
			(-0.0336)			(0.2281)			(0.0114)
FSIZE	-0.0064 **	-0.0065 **	-0.0066 **	-0.0036	-0.0037	-0.0039	-0.0071 **	-0.0072 **	-0.0073 **
	(-2.3463)	(-2.3937)	(-2.4342)	(-1.3223)	(-1.3634)	(-1.4394)	(-2.3973)	(-2.4396)	(-2.4767)
LEVERAGE	0.0001	0.0036	0.0048	-0.0031	-0.0006	0.0004	-0.0006	0.0025	0.0036
	(0.0077)	(0.2550)	(0.3430)	(-0.2061)	(-0.0436)	(0.0288)	(-0.0388)	(0.1781)	(0.2587)
GROWTH	0.0242 **	0.0237 **	0.0242 **	0.0246 **	0.0251 **	0.0252 **	0.0246 **	0.0251 **	0.0255 **
	(2.3711)	(2.3153)	(2.3711)	(2.3805)	(2.4293)	(2.4465)	(2.3960)	(2.4495)	(2.4893)
R-squared	0.8598	0.8598	0.8596	0.8578	0.8578	0.8578	0.8594	0.8594	0.8593
Adjusted R-squared	0.8583	0.8583	0.8581	0.8563	0.8563	0.8562	0.8579	0.8579	0.8578
F-statistic	569.3907	569.2699	568.4248	560.1473	559.9292	559.8135	567.5464	567.3757	566.8125
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.2. RPT SALES (Dependent Variables) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 9			Model 10		
	RPTSALES			RPTSALES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0576 (0.8801)	0.0588 (0.8970)	0.0634 (0.9715)	0.0574 (0.8514)	0.0570 (0.8413)	0.0611 (0.9067)
RPTSALES(-1)	0.9186 *** (56.6667)	0.9179 *** (56.9274)	0.9179 *** (57.2402)	0.9212 *** (56.4358)	0.9206 *** (56.6764)	0.9201 *** (56.8747)
INDBOC	-0.1056 *** (-2.9160)	-0.1063 *** (-2.9304)	-0.1150 *** (-3.0997)			
BOCCOM				0.0198 (1.3014)	0.0201 (1.3212)	0.0200 (1.3169)
ROA(-1)	-0.0116 (-0.3437)			-0.0184 (-0.5391)		
CFO(-1)		-0.0026 (-0.0779)			-0.0124 (-0.3731)	
Tobin's Q(-1)			0.0018 (0.9759)			0.0005 (0.2738)
FSIZE	-0.0003 (-0.1338)	-0.0004 (-0.1788)	-0.0006 (-0.2647)	-0.0021 (-0.8808)	-0.0021 (-0.9092)	-0.0024 (-1.0168)
LEVERAGE	-0.0015 (-0.0974)	0.0003 (0.0203)	0.0019 (0.1392)	-0.0024 (-0.1595)	0.0000 (-0.0035)	0.0010 (0.0692)
GROWTH	0.0233 ** (2.2660)	0.0236 ** (2.3068)	0.0232 ** (2.2754)	0.0236 ** (2.2818)	0.0240 ** (2.3277)	0.0241 ** (2.3432)
R-squared	0.8596	0.8596	0.8598	0.8579	0.8578	0.8578
Adjusted R-squared	0.8581	0.8581	0.8583	0.8563	0.8563	0.8563
F-statistic	568.4294	568.2964	569.4197	557.2485	557.0710	556.9957
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.1. RPT PURCHASES (Dependent Variables) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 11			Model 12			Model 13		
	RPTPURCHASES			RPTPURCHASES			RPTPURCHASES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0447 (0.4707)	0.0459 (0.4836)	0.0434 (0.4568)	0.0800 (0.8372)	0.0816 (0.8532)	0.0767 (0.8031)	0.0595 (0.6391)	0.0610 (0.6548)	0.0572 (0.6143)
RPTPURCHASES(-1)	0.9605 *** (55.7321)	0.9629 *** (56.5427)	0.9623 *** (56.3676)	0.9618 *** (56.0552)	0.9638 *** (56.7221)	0.9632 *** (56.5932)	0.9614 *** (55.8397)	0.9635 *** (56.5934)	0.9629 *** (56.4354)
BODSIZE	-0.0106 (-0.6612)	-0.0111 (-0.6930)	-0.0090 (-0.5690)						
BOCSIZE				0.0091 (0.5223)	0.0089 (0.5139)	0.0093 (0.5342)			
BOARDSIZE							-0.0042 (-0.1983)	-0.0046 (-0.2207)	-0.0028 (-0.1323)
ROA(-1)	0.0368 (0.7820)			0.0311 (0.6695)			0.0330 (0.7040)		
CFO(-1)		0.0408 (0.8924)			0.0343 (0.7623)			0.0366 (0.8042)	
Tobin's Q(-1)			0.0008 (0.3163)			0.0006 (0.1034)			0.0007 (0.2754)
FSIZE	-0.0009 (-0.2514)	-0.0009 (-0.2338)	-0.0008 (-0.2107)	-0.0033 (-0.8726)	-0.0032 (-0.8708)	-0.0030 (-0.8033)	-0.0017 (-0.4290)	-0.0017 (-0.4156)	-0.0016 (-0.3931)
LEVERAGE	0.0049 (0.2393)	0.0011 (0.0552)	-0.0004 (-0.0184)	0.0067 (0.3290)	0.0036 (0.1860)	0.0020 (-0.8033)	0.0060 (0.2903)	0.0025 (0.1322)	0.0011 (0.0584)
GROWTH	0.0076 (0.5393)	0.0072 (0.5141)	0.0062 (0.4427)	0.0082 (0.5794)	0.0079 (0.5585)	0.0070 (0.4983)	0.0075 (0.5323)	0.0072 (0.5091)	0.0063 (0.4484)
R-squared	0.8530	0.8530	0.8529	0.8529	0.8530	0.8528	0.8529	0.8529	0.8528
Adjusted R-squared	0.8514	0.8515	0.8513	0.8514	0.8514	0.8513	0.8513	0.8513	0.8512
F-statistic	538.6367	538.8459	538.0574	538.4504	538.6009	538.0139	538.1859	538.3569	537.7107
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.2. RPT PURCHASES (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 14			Model 15		
	RPTPURCHASES			RPTPURCHASES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0637 (0.7045)	0.0657 (0.7254)	0.0603 (0.6677)	0.0695 (0.7510)	0.0733 (0.7892)	0.0669 (0.7218)
RPTPURCHASES(-1)	0.9611 *** (55.7650)	0.9632 *** (56.4972)	0.9624 *** (56.2670)	0.9623 *** (55.7809)	0.9643 *** (56.4482)	0.9637 *** (56.3122)
INDBOC	-0.0179 (-0.3581)	-0.0186 (-0.3710)	-0.0193 (-0.3755)			
BOCCOM				-0.0127 (-0.6080)	-0.0134 (-0.6442)	-0.0131 (-0.6273)
ROA(-1)	0.0332 (0.7111)			0.0305 (0.6539)		
CFO(-1)		0.0366 (0.8104)			0.0363 (0.8016)	
Tobin's Q(-1)			0.0009 (0.3471)			0.0007 (0.2655)
FSIZE	-0.0019 (-0.6061)	-0.0019 (-0.6056)	-0.0016 (-0.5176)	-0.0022 (-0.6877)	-0.0023 (-0.7091)	-0.0019 (-0.6090)
LEVERAGE	0.0068 (0.3313)	0.0034 (0.1790)	0.0019 (0.0992)	0.0052 (0.2498)	0.0020 (0.1055)	0.0004 (0.0228)
GROWTH	0.0076 (0.5364)	0.0072 (0.5142)	0.0063 (0.4442)	0.0077 (0.5439)	0.0074 (0.5269)	0.0065 (0.4622)
R-squared	0.8529	0.8529	0.8528	0.8529	0.8530	0.8528
Adjusted R-squared	0.8513	0.8514	0.8512	0.8513	0.8514	0.8512
F-statistic	538.2866	538.4577	537.8506	535.3384	535.5818	534.9342
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.1. RPTSALES (Dependent Variable) and RPT PURCHASES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 16			Model 17			Model 18		
	RPTSALES			RPTSALES			RPTSALES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1265 *	0.1272 *	0.1296 *	0.0802	0.0823	0.0851	0.1031	0.1042	0.1072
	(1.8277)	(1.8363)	(1.8712)	(1.1496)	(1.1770)	(1.2208)	(1.5223)	(1.5368)	(1.5828)
RPTSALES(-1)	0.9016 ***	0.9005 ***	0.8999 ***	0.9182 ***	0.9172 ***	0.9167 ***	0.9045 ***	0.9035 ***	0.9028 ***
	(52.5471)	(52.5785)	(52.4402)	(56.0047)	(56.1324)	(56.2989)	(52.9913)	(53.0561)	(52.9784)
RPTPURCHASES	0.0222 *	0.0201 *	0.0203 *	0.0173	0.0160	0.0160	0.0208 *	0.0190	0.0192
	(1.8480)	(1.6914)	(1.7014)	(1.4423)	(1.3444)	(1.3418)	(1.7336)	(1.5974)	(1.6081)
BODSIZE	0.0403 ***	0.0402 ***	0.0387 ***						
	(3.2746)	(3.2438)	(3.1475)						
BOCSIZE				0.0155	0.0155	0.0153			
				(1.2164)	(1.2154)	(1.2016)			
BOARDSIZE							0.0474 ***	0.0472 ***	0.0461 ***
							(2.9549)	(2.9307)	(2.8662)
ROA(-1)	-0.0398			-0.0262			-0.0349		
	(-1.1636)			(-0.7653)			(-1.0227)		
CFO(-1)		-0.0277			-0.0118			-0.0221	
		(-0.8368)			(-0.3575)			(-0.6708)	
Tobin's Q(-1)			-0.0003			0.0003			-0.0002
			(-0.1532)			(0.1493)			(-0.0968)
FSIZE	-0.0064 **	-0.0066 **	-0.0067 **	-0.0034	-0.0036	-0.0038	-0.0072 **	-0.0073 **	-0.0074 **
	(-2.3820)	(-2.4482)	(-2.4826)	(-1.2565)	(-1.3333)	(-1.3975)	(-2.4305)	(-2.4900)	(-2.5225)
LEVERAGE	-0.0007	0.0041	0.0052	-0.0040	-0.0004	0.0004	-0.0015	0.0029	0.0039
	(-0.0494)	(0.2933)	(0.3700)	(-0.2648)	(-0.0292)	(0.0314)	(-0.0974)	(0.2082)	(0.2767)
GROWTH	0.0235 **	0.0242 **	0.0248 **	0.0249 **	0.0255 **	0.0257 **	0.0250 **	0.0257 **	0.0261 **
	(2.2932)	(2.3716)	(2.4312)	(2.4100)	(2.4759)	(2.4940)	(2.4362)	(2.5093)	(2.5524)
R-squared	0.8607	0.8605	0.8603	0.8584	0.8582	0.8582	0.8602	0.8600	0.8599
Adjusted R-squared	0.8589	0.8588	0.8586	0.8566	0.8565	0.8564	0.8584	0.8583	0.8582
F-statistic	490.6530	489.9844	489.2922	481.3545	480.8933	480.7869	488.6492	488.0415	487.5922
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.2. RPTSALES (Dependent Variable) and RPT PURCHASES & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 19			Model 20		
	RPTSALES			RPTSALES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0520	0.0545	0.0589	0.0507	0.0517	0.0553
	(0.7928)	(0.8297)	(0.9004)	(0.7501)	(0.7628)	(0.8193)
RPTSALES(-1)	0.9174 ***	0.9164 ***	0.9165 ***	0.9198 ***	0.9189 ***	0.9184 ***
	(56.5112)	(56.6609)	(56.9738)	(56.2737)	(56.4003)	(56.6008)
RPTPURCHASES	0.0141	0.0133	0.0125	0.0162	0.0150	0.0150
	(1.1781)	(1.1181)	(1.0468)	(1.3456)	(1.2545)	(1.2485)
INDBOC	-0.1019 ***	-0.1033 ***	-0.1114 ***			
	(-2.8018)	(-2.8388)	(-2.9890)			
BOCCOM				0.0187	0.0191	0.0190
				(1.2264)	(1.2558)	(1.2519)
ROA(-1)	-0.0172			-0.0244		
	(-0.5030)			(-0.7116)		
CFO(-1)		-0.0020			-0.0114	
		(-0.0598)			(-0.3448)	
Tobin's Q(-1)			0.0017			0.0004
			(0.8910)			(0.1996)
FSIZE	-0.0002	-0.0004	-0.0005	-0.0018	-0.0020	-0.0022
	(-0.0821)	(-0.1577)	(-0.2360)	(-0.7834)	(-0.8536)	(-0.9456)
LEVERAGE	-0.0023	0.0004	0.0019	-0.0033	0.0001	0.0010
	(-0.1508)	(0.0292)	(0.1362)	(-0.2157)	(0.0090)	(0.0708)
GROWTH	0.0235 **	0.0240 **	0.0236 **	0.0239 **	0.0245 **	0.0246 **
	(2.2897)	(2.3454)	(2.3135)	(2.3092)	(2.3715)	(2.3877)
R-squared	0.8600	0.8599	0.8601	0.8583	0.8582	0.8582
Adjusted R-squared	0.8582	0.8581	0.8583	0.8565	0.8564	0.8564
F-statistic	487.7628	487.5085	488.3144	478.5991	478.2087	478.1291
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel E.1. RPTPURCHASES (Dependent Variable) and RPT SALES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 21			Model 22			Model 23		
	RPTPURCHASES			RPTPURCHASES			RPTPURCHASES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0373 (0.3879)	0.0382 (0.3980)	0.0354 (0.3681)	0.0787 (0.8213)	0.0803 (0.8370)	0.0752 (0.7851)	0.0558 (0.5952)	0.0572 (0.6094)	0.0531 (0.5663)
RPTPURCHASES(-1)	0.9593 *** (55.1515)	0.9616 *** (55.8784)	0.9608 *** (55.6744)	0.9615 *** (55.7590)	0.9635 *** (56.3210)	0.9627 *** (56.1964)	0.9606 *** (55.3388)	0.9627 *** (55.9980)	0.9620 *** (55.8188)
RPTSALES	0.0126 (0.5236)	0.0131 (0.5462)	0.0140 (0.5801)	0.0042 (0.1857)	0.0044 (0.1942)	0.0058 (0.2584)	0.0080 (0.3371)	0.0084 (0.3536)	0.0095 (0.3966)
BODSIZE	-0.0138 (-0.8052)	-0.0146 (-0.8437)	-0.0128 (-0.7444)						
BOCSIZE				0.0086 (0.4943)	0.0085 (0.4849)	0.0087 (0.4960)			
BOARDSIZE							-0.0067 (-0.3008)	-0.0074 (-0.3279)	-0.0059 (-0.2630)
ROA(-1)	0.0356 (0.7552)			0.0303 (0.6466)			0.0320 (0.6804)		
CFO(-1)		0.0404 (0.8826)			0.0337 (0.7443)			0.0360 (0.7906)	
Tobin's Q(-1)			0.0009 (0.3494)			0.0006 (0.2563)			0.0007 (0.2957)
FSIZE	-0.0005 (-0.1401)	-0.0005 (-0.1199)	-0.0003 (-0.0930)	-0.0032 (-0.8561)	-0.0032 (-0.8551)	-0.0029 (-0.7871)	-0.0014 (-0.3435)	-0.0013 (-0.3281)	-0.0012 (-0.2986)
LEVERAGE	0.0056 (0.2730)	0.0020 (0.1022)	0.0007 (0.0359)	0.0071 (0.3450)	0.0041 (0.2100)	0.0027 (0.1399)	0.0065 (0.3133)	0.0032 (0.1655)	0.0019 (0.0999)
GROWTH	0.0078 (0.5499)	0.0074 (0.5276)	0.0064 (0.4565)	0.0082 (0.5812)	0.0079 (0.5615)	0.0071 (0.5037)	0.0076 (0.5336)	0.0072 (0.5122)	0.0064 (0.4519)
R-squared	0.8531	0.8531	0.8529	0.8530	0.8530	0.8529	0.8529	0.8530	0.8528
Adjusted R-squared	0.8512	0.8513	0.8511	0.8511	0.8511	0.8510	0.8511	0.8511	0.8510
F-statistic	461.1261	461.3287	460.6908	460.7338	460.8658	460.3917	460.5844	460.7418	460.2200
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel E.1. RPTPURCHASES (Dependent Variable) and RPT SALES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 24			Model 25		
	RPTPURCHASES			RPTPURCHASES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0631 (0.6971)	0.0651 (0.7180)	0.0598 (0.6609)	0.0687 (0.7410)	0.0724 (0.7787)	0.0661 (0.7129)
RPTPURCHASES(-1)	0.9608 *** (55.5324)	0.9628 *** (56.1608)	0.9619 *** (55.9441)	0.9619 *** (55.5178)	0.9638 *** (56.0838)	0.9631 *** (55.9548)
RPTSALES	0.0048 (0.2125)	0.0049 (0.2190)	0.0065 (0.2900)	0.0062 (0.2758)	0.0062 (0.2777)	0.0078 (0.3476)
INDBOC	-0.0168 (-0.3328)	-0.0174 (-0.3453)	-0.0179 (-0.3454)			
BOCCOM				-0.0130 (-0.6205)	-0.0137 (-0.6555)	-0.0134 (-0.6421)
ROA(-1)	0.0321 (0.6819)			0.0292 (0.6209)		
CFO(-1)		0.0357 (0.7865)			0.0352 (0.7754)	
Tobin's Q(-1)			0.0009 (0.3456)			0.0007 (0.2718)
FSIZE	-0.0020 (-0.6096)	-0.0020 (-0.6104)	-0.0017 (-0.5279)	-0.0022 (-0.6839)	-0.0023 (-0.7067)	-0.0019 (-0.6121)
LEVERAGE	0.0072 (0.3494)	0.0040 (0.2064)	0.0027 (0.1403)	0.0057 (0.2754)	0.0028 (0.1424)	0.0014 (0.0745)
GROWTH	0.0077 (0.5409)	0.0073 (0.5202)	0.0064 (0.4542)	0.0078 (0.5497)	0.0076 (0.5344)	0.0067 (0.4736)
R-squared	0.8529	0.8530	0.8528	0.8529	0.8530	0.8528
Adjusted R-squared	0.8511	0.8511	0.8510	0.8511	0.8511	0.8510
F-statistic	460.6041	460.7531	460.2687	458.1071	458.3164	457.8046
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel F.1. RPTS LENDING (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 26			Model 27			Model 28		
	RPTLENDING			RPTLENDING			RPTLENDING		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0192 (0.9503)	0.0182 (0.9042)	0.0190 (0.9450)	0.0135 (0.6709)	0.0114 (0.5670)	0.0132 (0.6558)	0.0172 (0.8712)	0.0156 (0.7913)	0.0170 (0.8647)
RPTLENDING(-1)	0.8778 *** (45.1074)	0.8763 *** (45.0769)	0.8770 *** (44.9507)	0.8827 *** (45.9072)	0.8822 *** (45.9423)	0.8822 *** (45.8041)	0.8775 *** (45.1298)	0.8762 *** (45.1184)	0.8766 *** (44.9742)
BODSIZE	0.0059 * (1.7395)	0.0068 ** (1.9853)	0.0060 * (1.7648)						
BOCSIZE				0.0033 (0.8954)	0.0034 (0.9425)	0.0033 (0.9070)			
BOARDSIZE							0.0083 * (1.8627)	0.0092 ** (2.0548)	0.0084 * (1.8926)
ROA(-1)	-0.0029 (-0.2941)			-0.0006 (-0.0585)			-0.0025 (-0.2536)		
CFO(-1)		-0.0153 (-1.5952)			-0.0121 (-1.2785)			-0.0146 (-1.5360)	
Tobin's Q(-1)			-0.0003 (-0.5843)			-0.0002 (-0.4367)			-0.0003 (-0.5852)
FSIZE	-0.0009 (-1.1437)	-0.0009 (-1.1093)	-0.0009 (-1.1387)	-0.0005 (-0.6922)	-0.0004 (-0.5493)	-0.0005 (-0.6663)	-0.0012 (-1.3641)	-0.0011 (-1.3313)	-0.0012 (-1.3628)
LEVERAGE	0.0014 (0.3272)	0.0012 (0.2873)	0.0017 (0.4141)	0.0007 (0.1669)	0.0001 (0.0231)	0.0006 (0.1598)	0.0014 (0.3225)	0.0010 (0.2603)	0.0016 (0.3942)
GROWTH	-0.0030 (-1.0199)	-0.0032 (-1.1006)	-0.0029 (-0.9727)	-0.0028 (-0.9413)	-0.0030 (-1.0245)	-0.0027 (-0.9258)	-0.0028 (-0.9361)	-0.0030 (-1.0083)	-0.0026 (-0.8916)
R-squared	0.7953	0.7962	0.7953	0.7944	0.7950	0.7945	0.7954	0.7963	0.7955
Adjusted R-squared	0.7930	0.7940	0.7931	0.7922	0.7928	0.7923	0.7932	0.7941	0.7933
F-statistic	360.5701	362.5707	360.7776	358.7695	360.0920	358.9214	360.9294	362.7988	361.1559
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel F.2. RPTS LENDING (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 29			Model 30		
	RPTLENDING			RPTLENDING		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0077 (0.4027)	0.0054 (0.2809)	0.0074 (0.3902)	0.0048 (0.2542)	0.0027 (0.1438)	0.0042 (0.2263)
RPTLENDING(-1)	0.8810 *** (45.5370)	0.8809 *** (45.5936)	0.8809 *** (45.5216)	0.8871 *** (47.8340)	0.8867 *** (47.8486)	0.8865 *** (47.7360)
INDBOC3	-0.0117 (-1.1104)	-0.0106 (-1.0062)	-0.0113 (-1.0444)			
BOCCOM3				0.0115 *** (2.7442)	0.0116 *** (2.7668)	0.0115 *** (2.7474)
ROA(-1)	0.0004 (0.0420)			-0.0004 (-0.0422)		
CFO(-1)		-0.0109 (-1.1513)			-0.0093 (-1.0235)	
Tobin's Q(-1)			-0.0001 (-0.1617)			-0.0002 (-0.4904)
FSIZE	0.0000 (0.0001)	0.0001 (0.1744)	0.0000 (0.0191)	-0.0002 (-0.3404)	-0.0001 (-0.1715)	-0.0002 (-0.2873)
LEVERAGE	0.0008 (0.1971)	0.0001 (0.0264)	0.0007 (0.1767)	0.0005 (0.1283)	0.0001 (0.0169)	0.0004 (0.1068)
GROWTH	-0.0031 (-1.0292)	-0.0033 (-1.1164)	-0.0031 (-1.0339)	-0.0031 (-1.0957)	-0.0033 (-1.1666)	-0.0031 (-1.0823)
R-squared	0.7946	0.7951	0.7946	0.8104	0.8107	0.8105
Adjusted R-squared	0.7924	0.7929	0.7924	0.8083	0.8087	0.8084
F-statistic	359.1187	360.1928	359.1385	394.6114	395.5306	394.8212
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel G.1. RPTS LIABILITIES (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 31			Model 32			Model 33		
	RPTLIABILITIES			RPTLIABILITIES			RPTLIABILITIES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1986 ***	0.2049 ***	0.1963 ***	0.2335 ***	0.2411 ***	0.2229 ***	0.2108 ***	0.2173 ***	0.2047 ***
	(2.7216)	(2.7846)	(2.6456)	(3.1582)	(3.2262)	(2.9590)	(2.9446)	(3.0059)	(2.8110)
RPTLIABILITIES(-1)	0.5765 ***	0.5669 ***	0.5694 ***	0.5646 ***	0.5542 ***	0.5561 ***	0.5700 ***	0.5603 ***	0.5619 ***
	(21.7528)	(21.1699)	(20.8730)	(21.0656)	(20.4767)	(20.1397)	(21.4658)	(20.9185)	(20.5954)
BODSIZE	0.0176	0.0184	0.0242 **						
	(1.4629)	(1.5028)	(1.9882)						
BOCSIZE				0.0343 ***	0.0351 ***	0.0361 ***			
				(2.5912)	(2.6313)	(2.6860)			
BOARDSIZE							0.0389 **	0.0403 **	0.0459 ***
							(2.4524)	(2.5148)	(2.8632)
ROA(-1)	0.1483 ***			0.1532 ***			0.1456 ***		
	(4.2114)			(4.4161)			(4.1665)		
CFO(-1)		0.1084 ***			0.1158 ***			0.1062 ***	
		(3.1001)			(3.3827)			(3.0710)	
Tobin's Q(-1)			0.0019			0.0022			0.0018
			(0.9530)			(1.1442)			(0.9468)
FSIZE	-0.0115 ***	-0.0112 ***	-0.0109 ***	-0.0136 ***	-0.0133 ***	-0.0124 ***	-0.0141 ***	-0.0139 ***	-0.0136 ***
	(-4.0880)	(-3.9454)	(-3.8051)	(-4.6907)	(-4.5529)	(-4.2027)	(-4.5842)	(-4.4726)	(-4.3325)
LEVERAGE	0.2019 ***	0.1849 ***	0.1806 ***	0.2027 ***	0.1853 ***	0.1797 ***	0.2042 ***	0.1875 ***	0.1831 ***
	(12.5761)	(12.0696)	(11.7010)	(12.7070)	(12.2174)	(11.7690)	(12.7395)	(12.2646)	(11.8887)
GROWTH	0.0129	0.0097	0.0072	0.0148	0.0117	0.0089	0.0140	0.0110	0.0086
	(1.2033)	(0.9107)	(0.6680)	(1.3868)	(1.0944)	(0.8241)	(1.3160)	(1.0309)	(0.8030)
R-squared	0.6216	0.6162	0.6102	0.6247	0.6194	0.6124	0.6242	0.6189	0.6131
Adjusted R-squared	0.6175	0.6120	0.6060	0.6206	0.6153	0.6083	0.6202	0.6148	0.6090
F-statistic	152.5002	149.0317	145.3171	154.5072	151.0494	146.7019	154.2001	150.7902	147.1194
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel G.2. RPTS LIABILITIES (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 34			Model 35		
	RPTLIABILITIES			RPTLIABILITIES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1636 ** (2.3533)	0.1702 ** (2.4208)	0.1505 ** (2.1254)	0.1549 ** (2.2013)	0.1672 ** (2.3461)	0.1431 ** (1.9939)
RPTLIABILITIES(-1)	0.5795 *** (21.7902)	0.5688 *** (21.1789)	0.5702 *** (20.8409)	0.5794 *** (21.8235)	0.5696 *** (21.2481)	0.5722 *** (20.8970)
INDBOC	-0.0498 (-1.3180)	-0.0489 (-1.2835)	-0.0499 (-1.2692)			
BOCCOM				0.0189 (1.2056)	0.0162 (1.0261)	0.0172 (1.0809)
ROA(-1)	0.1592 *** (4.5580)			0.1567 *** (4.5141)		
CFO(-1)		0.1215 *** (3.5206)			0.1220 *** (3.5590)	
Tobin's Q(-1)			0.0028 (1.3854)			0.0021 (1.0784)
FSIZE	-0.0086 *** (-3.4764)	-0.0083 *** (-3.3016)	-0.0072 *** (-2.8851)	-0.0093 *** (-3.8131)	-0.0091 *** (-3.6850)	-0.0079 *** (-3.1791)
LEVERAGE	0.2002 *** (12.5242)	0.1820 *** (11.9963)	0.1766 *** (11.5511)	0.1996 *** (12.4438)	0.1811 *** (11.9257)	0.1753 *** (11.4371)
GROWTH	0.0126 (1.1815)	0.0094 (0.8771)	0.0063 (0.5809)	0.0127 (1.1912)	0.0095 (0.8887)	0.0065 (0.6055)
R-squared	0.6213	0.6158	0.6086	0.6229	0.6178	0.6099
Adjusted R-squared	0.6173	0.6116	0.6043	0.6188	0.6136	0.6056
F-statistic	152.3234	148.7676	144.3228	152.5285	149.2415	144.3375
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel H.1. RPTS LENDING (Dependent Variable) and RPTS LIABILITIES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 36			Model 37			Model 38		
	RPTLENDING			RPTLENDING			RPTLENDING		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0224 (1.0863)	0.0206 (0.9999)	0.0221 (1.0719)	0.0182 (0.8704)	0.0152 (0.7243)	0.0176 (0.8419)	0.0217 (1.0701)	0.0193 (0.9514)	0.0213 (1.0526)
RPTLENDING(-1)	0.8778 *** (45.0937)	0.8764 *** (45.0525)	0.8772 *** (44.9368)	0.8827 *** (45.8990)	0.8823 *** (45.9235)	0.8824 *** (45.7972)	0.8772 *** (45.1119)	0.8761 *** (45.0959)	0.8766 *** (44.9649)
RPTLIABILITIES	-0.0066 (-0.7657)	-0.0048 (-0.5586)	-0.0062 (-0.7181)	-0.0077 (-0.8730)	-0.0060 (-0.6814)	-0.0072 (-0.8188)	-0.0084 (-0.9633)	-0.0068 (-0.7761)	-0.0080 (-0.9137)
BODSIZE	0.0060 * (1.7736)	0.0068 ** (2.0031)	0.0061 * (1.7986)						
BOCSIZE				0.0039 (1.04934)	0.0039 (1.0567)	0.0039 (1.0496)			
BOARDSIZE							0.0089 ** (1.9830)	0.0097 ** (2.1413)	0.0090 ** (2.0056)
ROA(-1)	-0.0020 (-0.2043)			0.0005 (0.0469)			-0.0015 (-0.1497)		
CFO(-1)		-0.0144 (-1.4900)			-0.0110 (-1.1542)			-0.0135 (-1.4095)	
Tobin's Q(-1)			-0.0003 (-0.4751)			-0.0002 (-0.3125)			-0.0002 (-0.4550)
FSIZE	-0.0010 (-1.2917)	-0.0010 (-1.2089)	-0.0010 (-1.2755)	-0.0008 (-0.9305)	-0.0006 (-0.7366)	-0.0007 (-0.8883)	-0.0014 (-1.5807)	-0.0013 (-1.4958)	-0.0014 (-1.5650)
LEVERAGE	0.0033 (0.6659)	0.0025 (0.5312)	0.0034 (0.7202)	0.0029 (0.5886)	0.0018 (0.3750)	0.0026 (0.5606)	0.0038 (0.7684)	0.0030 (0.6264)	0.0038 (0.8109)
GROWTH	-0.0030 (-0.9950)	-0.0032 (-1.0835)	-0.0028 (-0.9627)	-0.0027 (-0.9000)	-0.0029 (-0.9938)	-0.0027 (-0.9027)	-0.0027 (-0.8992)	-0.0029 (-0.9804)	-0.0026 (-0.8722)
R-squared	0.7955	0.7963	0.7955	0.7947	0.7952	0.7948	0.7958	0.7965	0.7958
Adjusted R-squared	0.7929	0.7937	0.7930	0.7921	0.7926	0.7922	0.7932	0.7939	0.7933
F-statistic	308.9142	310.4356	309.0426	307.4942	308.4198	307.5606	309.4606	310.8344	309.5897
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel H.2. RPTS LENDING (Dependent Variable) and RPTS LIABILITIES & INBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 39			Model 40		
	RPTLENDING			RPTLENDING		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0103 (0.5269)	0.0073 (0.3730)	0.0099 (0.5094)	0.0089 (0.4707)	0.0066 (0.3434)	0.0082 (0.4331)
RPTLENDING(-1)	0.8812 *** (45.5189)	0.8810 *** (45.5628)	0.8812 *** (45.5001)	0.8874 *** (47.8678)	0.8871 *** (47.8655)	0.8871 *** (47.7638)
RPTLIABILITIES	-0.0057 (-0.6635)	-0.0041 (-0.4754)	-0.0055 (-0.6366)	-0.0101 (-1.2155)	-0.0089 (-1.0583)	-0.0096 (-1.1516)
INDBOC	-0.0116 (-1.0998)	-0.0106 (-1.0010)	-0.0114 (-1.0507)			
BOCCOM				0.0116 *** (2.7588)	0.0116 *** (2.7725)	0.0116 *** (2.7573)
ROA(-1)	0.0012 (0.1223)			0.0011 (0.1122)		
CFO(-1)		-0.0102 (-1.0592)			-0.0077 (-0.8363)	
Tobin's Q(-1)			0.0000 (-0.0660)			-0.0002 (-0.3161)
FSIZE	-0.0001 (-0.1637)	0.0000 (0.0490)	-0.0001 (-0.1352)	-0.0004 (-0.6150)	-0.0003 (-0.4211)	-0.0004 (-0.5474)
LEVERAGE	0.0025 (0.5007)	0.0012 (0.2644)	0.0022 (0.4738)	0.0035 (0.7199)	0.0025 (0.5553)	0.0030 (0.6755)
GROWTH	-0.0030 (-1.0070)	-0.0033 (-1.1015)	-0.0030 (-1.0256)	-0.0030 (-1.0547)	-0.0032 (-1.1345)	-0.0030 (-1.0665)
R-squared	0.7948	0.7952	0.7948	0.8109	0.8111	0.8109
Adjusted R-squared	0.7922	0.7926	0.7922	0.8085	0.8087	0.8085
F-statistic	307.5696	308.3400	307.5622	338.7409	339.2597	338.8068
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel I.1. RPTS LIABILITIES (Dependent Variable) and RPTS LENDING & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 41			Model 42			Model 43		
	RPTLIABILITIES			RPTLIABILITIES			RPTLIABILITIES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1984 ***	0.2029 ***	0.1962 ***	0.2325 ***	0.2386 ***	0.2210 ***	0.2129 ***	0.2177 ***	0.2066 ***
	(2.6797)	(2.7190)	(2.6077)	(3.1157)	(3.1650)	(2.9092)	(2.9340)	(2.9733)	(2.8012)
RPTLIABILITIES(-1)	0.5765 ***	0.5669 ***	0.5694 ***	0.5647 ***	0.5544 ***	0.5562 ***	0.5698 ***	0.5603 ***	0.5618 ***
	(21.7306)	(21.1521)	(20.8542)	(21.0416)	(20.4601)	(20.1227)	(21.4271)	(20.8889)	(20.5682)
RPTLENDING	0.0010	0.0120	0.0007	0.0072	0.0189	0.0142	-0.0129	-0.0025	-0.0120
	(0.0145)	(0.1677)	(0.0090)	(0.1028)	(0.2702)	(0.2008)	(-0.1817)	(-0.0354)	(0.1672)
BODSIZE	0.0176	0.0179	0.0241 *						
	(1.4323)	(1.4380)	(1.9464)						
BOCSIZE				0.0342 **	0.0348 ***	0.0359 ***			
				(2.5744)	(2.6016)	(2.6617)			
BOARDSIZE							0.0395 **	0.0404 **	0.0464 ***
							(2.4395)	(2.4694)	(2.8378)
ROA(-1)	0.1483 ***			0.1532 ***			0.1455 ***		
	(4.2071)			(4.4113)			(4.1599)		
CFO(-1)		0.1088 ***			0.1162 ***			0.1061 ***	
		(3.1012)			(3.3880)			(3.0592)	
Tobin's Q(-1)			0.0019			0.0022			0.0018
			(0.9500)			(1.1531)			(0.9312)
FSIZE	-0.0115 ***	-0.0111 ***	-0.0109 ***	-0.0136 ***	-0.0133 ***	-0.0124 ***	-0.0142 ***	-0.0139 ***	-0.0137 ***
	(-4.0241)	(-3.8602)	(-3.7499)	(-4.6486)	(-4.4988)	(-4.1589)	(-4.5363)	(-4.4017)	(-4.2895)
LEVERAGE	0.2019 ***	0.1848 ***	0.1806 ***	0.2027 ***	0.1852 ***	0.1797 ***	0.2043 ***	0.1875 ***	0.1831 ***
	(12.5583)	(12.0486)	(11.6850)	(12.6925)	(12.2047)	(11.7575)	(12.7273)	(12.2483)	(11.8777)
GROWTH	0.0129	0.0099	0.0072	0.0149	0.0119	0.0090	0.0139	0.0110	0.0085
	(1.2005)	(0.9195)	(0.6666)	(1.3893)	(1.1088)	(0.8341)	(1.3017)	(1.0258)	(0.7918)
R-squared	0.6216	0.6162	0.6102	0.6247	0.6194	0.6125	0.6242	0.6189	0.6131
Adjusted R-squared	0.6168	0.6114	0.6053	0.6200	0.6146	0.6076	0.6195	0.6142	0.6083
F-statistic	130.4799	127.5226	124.3339	132.2010	129.2659	125.5336	131.9468	129.0171	125.8863
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel I.2. RPTS LIABILITIES (Dependent Variable) and RPTS LENDING & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 44			Model 45		
	RPTLIABILITIES			RPTLIABILITIES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1627 **	0.1681 **	0.1487 **	0.1553 **	0.1663 **	0.1427 **
	(2.3250)	(2.3753)	(2.0871)	(2.1941)	(2.3207)	(1.9773)
RPTLIABILITIES(-1)	0.5795 ***	0.5688 ***	0.5702 ***	0.5793 ***	0.5696 ***	0.5722 ***
	(21.7712)	(21.1624)	(20.8233)	(21.8021)	(21.2297)	(20.8782)
RPTLENDING	0.0081	0.0211	0.0172	-0.0040	0.0097	0.0047
	(0.1153)	(0.2981)	(0.2410)	(-0.0571)	(0.1379)	(0.0664)
INDBOC	-0.0492	-0.0474	-0.0488			
	(-1.2894)	(-1.2325)	(-1.2287)			
BOCCOM				0.0190	0.0159	0.0171
				(1.2021)	(0.9992)	(1.0628)
ROA(-1)	0.1591 ***			0.1567 ***		
	(4.5509)			(4.5104)		
CFO(-1)		0.1218 ***			0.1222 ***	
		(3.5246)			(3.5585)	
Tobin's Q(-1)			0.0028			0.0021
			(1.3909)			(1.0795)
FSIZE	-0.0086 ***	-0.0082 ***	-0.0072 ***	-0.0093 ***	-0.0090 ***	-0.0079 ***
	(-3.4641)	(-3.2846)	(-2.8704)	(-3.8016)	(-3.6622)	(-3.1638)
LEVERAGE	0.2001 ***	0.1820 ***	0.1766 ***	0.1996 ***	0.1811 ***	0.1753 ***
	(12.5100)	(11.9852)	(11.5403)	(12.4318)	(11.9140)	(11.4265)
GROWTH	0.0127	0.0096	0.0065	0.0126	0.0096	0.0066
	(1.1856)	(0.8960)	(0.5960)	(1.1833)	(0.8956)	(0.6080)
R-squared	0.6213	0.6158	0.6086	0.6229	0.6178	0.6099
Adjusted R-squared	0.6166	0.6110	0.6037	0.6181	0.6130	0.6049
F-statistic	130.3336	127.3192	123.5043	130.5039	127.6975	123.4961
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel J.1. RPTS PERSON (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 46			Model 47			Model 48		
	RPTPERSON			RPTPERSON			RPTPERSON		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2314 ***	0.2372 ***	0.2355 ***	0.2376 ***	0.2472 ***	0.2388 ***	0.2322 ***	0.2394 ***	0.2348 ***
	(3.6788)	(3.7736)	(3.7234)	(3.7454)	(3.8957)	(3.7360)	(3.7830)	(3.8998)	(3.8018)
RPTPERSON(-1)	0.3798 ***	0.3702 ***	0.3584 ***	0.3716 ***	0.3607 ***	0.3469 ***	0.3714 ***	0.3621 ***	0.3497 ***
	(11.1642)	(10.9490)	(10.3183)	(10.8728)	(10.6298)	(9.9350)	(10.9464)	(10.7463)	(10.1097)
BODSIZE	0.0322 ***	0.0307 ***	0.0349 ***						
	(3.0620)	(2.9096)	(3.3298)						
BOCSIZE				0.0356 ***	0.0354 ***	0.0367 ***			
				(3.1058)	(3.0977)	(3.1876)			
BOARDSIZE							0.0546 ***	0.0533 ***	0.0576 ***
							(3.9709)	(3.8736)	(4.1944)
ROA(-1)	0.0842 ***			0.0950 ***			0.0833 ***		
	(2.7360)			(3.1211)			(2.7305)		
CFO(-1)		0.0919 ***			0.1044 ***			0.0914 ***	
		(3.0571)			(3.5318)			(3.0775)	
Tobin's Q(-1)			0.0030 *			0.0034 **			0.0030
			(1.7655)			(2.0422)			(1.7829)
FSIZE	-0.0129 ***	-0.0128 ***	-0.0128 ***	-0.0132 ***	-0.0133 ***	-0.0129 ***	-0.0155 ***	-0.0154 ***	-0.0154 ***
	(-5.2743)	(-5.2506)	(-5.2177)	(-5.3069)	(-5.3608)	(-5.1521)	(-5.8625)	(-5.8546)	(-5.8191)
LEVERAGE	0.1582 ***	0.1495 ***	0.1476 ***	0.1554 ***	0.1459 ***	0.1429 ***	0.1592 ***	0.1507 ***	0.1486 ***
	(11.6503)	(11.7061)	(11.4984)	(11.5070)	(11.5590)	(11.2605)	(11.7980)	(11.8927)	(11.6705)
GROWTH	0.0080	0.0068	0.0042	0.0099	0.0086	0.0057	0.0096	0.0084	0.0059
	(0.8623)	(0.7353)	(0.4552)	(1.0669)	(0.9289)	(0.6075)	(1.0343)	(0.9078)	(0.6367)
R-squared	0.3734	0.3755	0.3685	0.3737	0.3767	0.3675	0.3804	0.3826	0.3757
Adjusted R-squared	0.3667	0.3688	0.3617	0.3670	0.3700	0.3607	0.3737	0.3760	0.3690
F-statistic	55.3265	55.8147	54.1798	55.3971	56.1117	53.9400	56.9986	57.5337	55.8634
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel J.2. RPTS PERSON (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 49			Model 50		
	RPTPERSON			RPTPERSON		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1698 ***	0.1802 ***	0.1698 ***	0.1754 ***	0.1897 ***	0.1765 ***
	(2.8205)	(2.9923)	(2.8017)	(2.8488)	(3.0726)	(2.8427)
RPTPERSON(-1)	0.3865 ***	0.3751 ***	0.3595 ***	0.3858 ***	0.3747 ***	0.3611 ***
	(11.2430)	(10.9940)	(10.2648)	(11.1634)	(10.9097)	(10.2170)
INDBOC	-0.0466	-0.0492	-0.0560			
	(-1.4048)	(-1.4859)	(-1.6436)			
BOCCOM				0.0034	0.0014	0.0021
				(0.2433)	(0.1019)	(0.1525)
ROA(-1)	0.1016 ***			0.0984 ***		
	(3.3078)			(3.1964)		
CFO(-1)		0.1116 ***			0.1074 ***	
		(3.7376)			(3.5910)	
Tobin's Q(-1)			0.0041 **			0.0035 **
			(2.3621)			(2.0566)
FSIZE	-0.0082 ***	-0.0083 ***	-0.0077 ***	-0.0091 ***	-0.0093 ***	-0.0087 ***
	(-3.8367)	(-3.8897)	(-3.5887)	(-4.2840)	(-4.3892)	(-4.0686)
LEVERAGE	0.1546 ***	0.1445 ***	0.1416 ***	0.1538 ***	0.1435 ***	0.1405 ***
	(11.3640)	(11.3784)	(11.0897)	(11.1983)	(11.2033)	(10.9057)
GROWTH	0.0079	0.0064	0.0030	0.0080	0.0065	0.0034
	(0.8380)	(0.6887)	(0.3249)	(0.8461)	(0.6969)	(0.3663)
R-squared	0.3651	0.3685	0.3591	0.3641	0.3671	0.3573
Adjusted R-squared	0.3583	0.3617	0.3522	0.3572	0.3603	0.3503
F-statistic	53.3900	54.1696	52.0096	52.8728	53.5621	51.3319
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel K.1. RPTS ENTITY (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 51			Model 52			Model 53		
	RPTENTITY			RPTENTITY			RPTENTITY		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0677 (0.4548)	0.0640 (0.4303)	0.0664 (0.4462)	0.0771 (0.5159)	0.0707 (0.4722)	0.0738 (0.4945)	0.0702 (0.4819)	0.0652 (0.4470)	0.0680 (0.4667)
RPTENTITY(-1)	0.9306 *** (54.5096)	0.9322 *** (55.3603)	0.9320 *** (55.3808)	0.9304 *** (54.6127)	0.9322 *** (55.5744)	0.9320 *** (55.6321)	0.9303 *** (54.3271)	0.9319 *** (55.1888)	0.9317 *** (55.2157)
BODSIZE	0.0041 (0.1627)	0.0057 (0.2262)	0.0049 (0.1962)						
BOCSIZE				0.0094 (0.3458)	0.0095 (0.3486)	0.0092 (0.3399)			
BOARDSIZE							0.0092 (0.2793)	0.0108 (0.3246)	0.0097 (0.2958)
ROA(-1)	0.0409 (0.5558)			0.0422 (0.5782)			0.0406 (0.5532)		
CFO(-1)		0.0020 (0.0284)			0.0041 (0.0581)			0.0017 (0.0247)	
Tobin's Q(-1)			0.0018 (0.4540)			0.0018 (0.4641)			0.0018 (0.4480)
FSIZE	-0.0024 (-0.4141)	-0.0021 (-0.3632)	-0.0023 (-0.3913)	-0.0030 (-0.5130)	-0.0025 (-0.4307)	-0.0027 (-0.4702)	-0.0030 (-0.4764)	-0.0027 (-0.4269)	-0.0028 (-0.4498)
LEVERAGE	0.0085 (0.2638)	0.0021 (0.0689)	0.0031 (0.1047)	0.0083 (0.2604)	0.0015 (0.0498)	0.0026 (0.0882)	0.0088 (0.2749)	0.0023 (0.0778)	0.0034 (0.1147)
GROWTH	0.0307 (1.3922)	0.0294 (1.3399)	0.0290 (1.3224)	0.0312 (1.4131)	0.0300 (1.3605)	0.0295 (1.3405)	0.0309 (1.4029)	0.0297 (1.3526)	0.0293 (1.3338)
R-squared	0.8497	0.8496	0.8496	0.8497	0.8496	0.8497	0.8497	0.8496	0.8497
Adjusted R-squared	0.8481	0.8480	0.8480	0.8481	0.8480	0.8480	0.8481	0.8480	0.8480
F-statistic	524.7157	524.3742	524.6018	524.8189	524.4522	524.6871	524.7728	524.4343	524.6561
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. of Obsv.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel K.2. RPTS ENTITY (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 54			Model 55		
	RPTENTITY			RPTENTITY		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0600 (0.4261)	0.0539 (0.3825)	0.0589 (0.4191)	0.0494 (0.3461)	0.0463 (0.3230)	0.0473 (0.3312)
RPTENTITY(-1)	0.9276 *** (54.3661)	0.9298 *** (55.4068)	0.9291 *** (55.4264)	0.9307 *** (55.0936)	0.9324 *** (56.0930)	0.9323 *** (56.1561)
INDBOC	-0.1222 (-1.5652)	-0.1187 (-1.5191)	-0.1335 * (-1.6671)			
BOCCOM				0.0448 (1.3906)	0.0440 (1.3662)	0.0441 (1.3716)
ROA(-1)	0.0528 (0.7218)			0.0427 (0.5885)		
CFO(-1)		0.0152 (0.2155)			0.0146 (0.2096)	
Tobin's Q(-1)			0.0034 (0.8570)			0.0017 (0.4377)
FSIZE	-0.0002 (-0.0387)	0.0003 (0.0523)	0.0001 (0.0201)	-0.0021 (-0.4302)	-0.0018 (-0.3594)	-0.0019 (-0.3835)
LEVERAGE	0.0109 (0.3416)	0.0029 (0.0979)	0.0048 (0.1618)	0.0078 (0.2447)	0.0014 (0.0459)	0.0018 (0.0615)
GROWTH	0.0300 (1.3620)	0.0286 (1.3045)	0.0275 (1.2534)	0.0300 (1.3748)	0.0290 (1.3298)	0.0283 (1.3017)
R-squared	0.8503	0.8502	0.8504	0.8530	0.8529	0.8530
Adjusted R-squared	0.8487	0.8486	0.8488	0.8514	0.8513	0.8514
F-statistic	527.4023	526.8744	527.6397	535.7744	535.4318	535.5991
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel L.1. RPTS PERSON (Dependent Variable) and RPTS ENTITY & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 56			Model 57			Model 58		
	RPTPERSON			RPTPERSON			RPTPERSON		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.2332 ***	0.2365 ***	0.2346 ***	0.2391 ***	0.2462 ***	0.2371 ***	0.2354 ***	0.2401 ***	0.2351 ***
	(3.6814)	(3.7379)	(3.6828)	(3.7433)	(3.8559)	(3.6879)	(3.8070)	(3.8850)	(3.7820)
RPTPERSON(-1)	0.3798 ***	0.3703 ***	0.3586 ***	0.3715 ***	0.3609 ***	0.3472 ***	0.3713 ***	0.3620 ***	0.3496 ***
	(11.1550)	(10.9393)	(10.3097)	(10.8620)	(10.6212)	(9.9297)	(10.9349)	(10.7310)	(10.0940)
RPTENTITY	-0.0018	0.0006	0.0010	-0.0015	0.0011	0.0018	-0.0032	-0.0008	-0.0004
	(-0.2570)	(0.0905)	(0.1356)	(-0.2139)	(0.1557)	(0.2531)	(-0.4510)	(-0.1074)	(-0.0566)
BODSIZE	0.0324 ***	0.0306 ***	0.0347 ***						
	(3.0695)	(2.8747)	(3.2835)						
BOCSIZE				0.0358 ***	0.0352 ***	0.0364 ***			
				(3.1098)	(3.0673)	(3.1469)			
BOARDSIZE							0.0554 ***	0.0535 ***	0.0577 ***
							(3.9931)	(3.8462)	(4.1541)
ROA(-1)	0.0855 ***			0.0962 ***			0.0856 ***		
	(2.7386)			(3.1064)			(2.7655)		
CFO(-1)		0.0918 ***			0.1041 ***			0.0915 ***	
		(3.0492)			(3.5149)			(3.0767)	
Tobin's Q(-1)			0.0030 *			0.0034 **			0.0030 *
			(1.7581)			(2.0267)			(1.7822)
FSIZE	-0.0129 ***	-0.0127 ***	-0.0128 ***	-0.0132 ***	-0.0132 ***	-0.0128 ***	-0.0156 ***	-0.0154 ***	-0.0154 ***
	(-5.2665)	(-5.2117)	(-5.1738)	(-5.2965)	(-5.3235)	(-5.1083)	(-5.8672)	(-5.8197)	(-5.7776)
LEVERAGE	0.1584 ***	0.1495 ***	0.1476 ***	0.1555 ***	0.1460 ***	0.1430 ***	0.1595 ***	0.1507 ***	0.1486 ***
	(11.6383)	(11.6959)	(11.4887)	(11.4954)	(11.5498)	(11.2538)	(11.7968)	(11.8819)	(11.6599)
GROWTH	0.0080	0.0068	0.0043	0.0099	0.0087	0.0058	0.0095	0.0083	0.0058
	(0.8540)	(0.7380)	(0.4609)	(1.0611)	(0.9335)	(0.6177)	(1.0234)	(0.9021)	(0.6331)
R-squared	0.3735	0.3755	0.3686	0.3738	0.3768	0.3676	0.3806	0.3826	0.3757
Adjusted R-squared	0.3656	0.3676	0.3606	0.3659	0.3689	0.3596	0.3728	0.3749	0.3678
F-statistic	47.3526	47.7571	46.3606	47.4084	48.0150	46.1658	48.8152	49.2287	47.7977
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel L.2. RPTS PERSON (Dependent Variable) and RPTS ENTITY & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 59			Model 60		
	RPTPERSON			RPTPERSON		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.1704 ***	0.1791 ***	0.1683 ***	0.1751 ***	0.1877 ***	0.1740 ***
	(2.8196)	(2.9631)	(2.7678)	(2.8324)	(3.0296)	(2.7943)
RPTPERSON(-1)	0.3866 ***	0.3751 ***	0.3597 ***	0.3858 ***	0.3749 ***	0.3615 ***
	(11.2338)	(10.9856)	(10.2607)	(11.1529)	(10.9062)	(10.2198)
RPTENTITY	-0.0010	0.0017	0.0023	0.0005	0.0031	0.0039
	(-0.1345)	(0.2475)	(0.3248)	(0.0647)	(0.4415)	(0.5537)
INDBOC	-0.0472	-0.0481	-0.0544			
	(-1.4085)	(-1.4397)	(-1.5817)			
BOCCOM				0.0033	0.0008	0.0014
				(0.2351)	(0.0586)	(0.0977)
ROA(-1)	0.1024 ***			0.0980 ***		
	(3.2687)			(3.1271)		
CFO(-1)		0.1110 ***			0.1066 ***	
		(3.7081)			(3.5560)	
Tobin's Q(-1)			0.0041 **			0.0035 **
			(2.3286)			(2.0276)
FSIZE	-0.0082 ***	-0.0083 ***	-0.0077 ***	-0.0091 ***	-0.0093 ***	-0.0086 ***
	(-3.8356)	(-3.8839)	(-3.5834)	(-4.2656)	(-4.3600)	(-4.0373)
LEVERAGE	0.1546 ***	0.1445 ***	0.1417 ***	0.1538 ***	0.1436 ***	0.1407 ***
	(11.3477)	(11.3715)	(11.0849)	(11.1742)	(11.2017)	(10.9083)
GROWTH	0.0078	0.0065	0.0032	0.0080	0.0067	0.0037
	(0.8330)	(0.6992)	(0.3424)	(0.8469)	(0.7165)	(0.3951)
R-squared	0.3651	0.3686	0.3592	0.3641	0.3673	0.3577
Adjusted R-squared	0.3572	0.3606	0.3511	0.3561	0.3593	0.3495
F-statistic	45.6848	46.3616	44.5231	45.2387	45.8715	51.3319
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel M.1. RPTS ENTITY (Dependent Variable) and RPTS PERSON & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 61			Model 62			Model 63		
	RPTENTITY			RPTENTITY			RPTENTITY		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.1131 (0.7480)	0.1098 (0.7251)	0.1145 (0.7565)	0.1274 (0.8361)	0.1220 (0.7985)	0.1267 (0.8322)	0.1188 (0.8002)	0.1144 (0.7691)	0.1192 (0.8030)
RPTENTITY(-1)	0.9311 *** (54.6073)	0.9329 *** (55.4573)	0.9328 *** (55.4918)	0.9309 *** (54.7179)	0.9329 *** (55.6789)	0.9327 *** (55.7512)	0.9305 *** (54.4227)	0.9323 *** (55.2879)	0.9322 *** (55.3288)
RPTPERSON	-0.1454 (-1.6051)	-0.1441 (-1.5826)	-0.1515 (-1.6566)	-0.1500 * (-1.6484)	-0.1486 (-1.6222)	-0.1558 (-1.6954)	-0.1509 (-1.6510)	-0.1496 (-1.6280)	-0.1569 (-1.7008)
BODSIZE	0.0090 (0.3592)	0.0101 (0.3991)	0.0099 (0.3938)						
BOCSIZE				0.0165 (0.6019)	0.0164 (0.5966)	0.0165 (0.6012)			
BOARDSIZE							0.0192 (0.5737)	0.0201 (0.5989)	0.0198 (0.5928)
ROA(-1)	0.0481 (0.6527)			0.0514 (0.7022)			0.0479 (0.6528)		
CFO(-1)		0.0155 (0.2165)			0.0197 (0.2780)			0.0153 (0.2150)	
Tobin's Q(-1)			0.0028 (0.7005)			0.0029 (0.7287)			0.0028 (0.6979)
FSIZE	-0.0047 (-0.7871)	-0.0044 (-0.7355)	-0.0047 (-0.7876)	-0.0056 (-0.9216)	-0.0051 (-0.8464)	-0.0054 (-0.9042)	-0.0059 (-0.9090)	-0.0056 (-0.8582)	-0.0059 (-0.9051)
LEVERAGE	0.0329 (0.9275)	0.0258 (0.7686)	0.0281 (0.8375)	0.0331 (0.9398)	0.0255 (0.7670)	0.0276 (0.8351)	0.0345 (0.9681)	0.0273 (0.8102)	0.0295 (0.8798)
GROWTH	0.0312 (1.4179)	0.0300 (1.3669)	0.0291 (1.3289)	0.0322 (1.4578)	0.0309 (1.4053)	0.0299 (1.3631)	0.0318 (1.4423)	0.0306 (1.3924)	0.0297 (1.3539)
R-squared	0.8504	0.8503	0.8504	0.8504	0.8503	0.8504	0.8504	0.8503	0.8504
Adjusted R-squared	0.8485	0.8484	0.8485	0.8485	0.8484	0.8486	0.8485	0.8484	0.8486
F-statistic	451.3972	451.0355	451.4590	451.6199	451.2230	451.6560	451.5883	451.2257	451.6464
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel M.2. RPTS ENTITY (Dependent Variable) and RPTS PERSON & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 64			Model 65		
	RPTENTITY			RPTENTITY		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0954 (0.6705)	0.0911 (0.6383)	0.0981 (0.6905)	0.0838 (0.5811)	0.0831 (0.5732)	0.0842 (0.5837)
RPTENTITY(-1)	0.9285 *** (54.4644)	0.9308 *** (55.5012)	0.9301 *** (55.5455)	0.9316 *** (55.1907)	0.9334 *** (56.1859)	0.9335 *** (56.2570)
RPTPERSON	-0.1429 (-1.5933)	-0.1426 (-1.5781)	-0.1541 (-1.7004)	-0.1412 (-1.5848)	-0.1417 (-1.5792)	-0.1465 (-1.6269)
INDBOC	-0.1236 (-1.5845)	-0.1209 (-1.5485)	-0.1394 * (-1.7431)			
BOCCOM				0.0443 (1.3769)	0.0432 (1.3450)	0.0435 (1.3542)
ROA(-1)	0.0618 (0.8429)			0.0515 (0.7085)		
CFO(-1)		0.0309 (0.4344)			0.0300 (0.4268)	
Tobin's Q(-1)			0.0046 (1.1293)			0.0027 (0.6942)
FSIZE	-0.0018 (-0.3572)	-0.0014 (-0.2793)	-0.0016 (-0.3275)	-0.0037 (-0.7401)	-0.0035 (-0.6868)	-0.0036 (-0.7193)
LEVERAGE	0.0343 (0.9770)	0.0257 (0.7776)	0.0293 (0.8912)	0.0309 (0.8833)	0.0239 (0.7282)	0.0250 (0.7640)
GROWTH	0.0305 (1.3877)	0.0292 (1.3308)	0.0274 (1.2543)	0.0306 (1.4017)	0.0295 (1.3576)	0.0284 (1.3063)
R-squared	0.8510	0.8509	0.8512	0.8537	0.8536	0.8537
Adjusted R-squared	0.8491	0.8490	0.8493	0.8518	0.8517	0.8518
F-statistic	453.6705	453.1708	454.2113	460.8472	460.5352	460.8275
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel N.1. RPTS ENTITY SHAREHOLDERS (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 61			Model 62			Model 63		
	RPTENTITY_SH			RPTENTITY_SH			RPTENTITY_SH		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0028 (-0.0590)	-0.0024 (-0.0493)	-0.0034 (-0.0718)	0.0075 (0.1578)	0.0078 (0.1634)	0.0056 (0.1184)	0.0032 (0.0685)	0.0036 (0.0765)	0.0019 (0.0409)
RPTENTITY_SH(-1)	0.9412 *** (69.3436)	0.9413 *** (69.2331)	0.9422 *** (69.5928)	0.9404 *** (71.0956)	0.9405 *** (70.8989)	0.9417 *** (71.5337)	0.9400 *** (69.7285)	0.9401 *** (69.5924)	0.9411 *** (70.0432)
BODSIZE	-0.0012 (-0.1513)	-0.0012 (-0.1509)	-0.0006 (-0.0773)						
BOCSIZE				0.0042 (0.4983)	0.0042 (0.4927)	0.0042 (0.4950)			
BOARDSIZE							0.0028 (0.2693)	0.0028 (0.2714)	0.0032 (0.3080)
ROA(-1)	0.0320 (1.4089)			0.0313 (1.3909)			0.0310 (1.3683)		
CFO(-1)		0.0256 (1.1468)			0.0248 (1.1222)			0.0244 (1.0972)	
Tobin's Q(-1)			0.0016 (1.3173)			0.0016 (1.3033)			0.0016 (1.2892)
FSIZE	0.0000 (0.0176)	0.0001 (0.0738)	0.0001 (0.0643)	-0.0006 (-0.3375)	-0.0005 (-0.2776)	-0.0005 (-0.2504)	-0.0005 (-0.2330)	-0.0004 (-0.1822)	-0.0004 (-0.1797)
LEVERAGE	0.0031 (0.3070)	-0.0008 (-0.0829)	-0.0008 (-0.0864)	0.0034 (0.3327)	-0.0005 (-0.0502)	-0.0006 (-0.0605)	0.0034 (0.3368)	-0.0004 (-0.0402)	-0.0004 (-0.0455)
GROWTH	-0.0018 (-0.2663)	-0.0024 (-0.3576)	-0.0033 (-0.4791)	-0.0016 (-0.2313)	-0.0022 (-0.3216)	-0.0030 (-0.4403)	-0.0018 (-0.2556)	-0.0024 (-0.3448)	-0.0031 (-0.4604)
R-squared	0.9079	0.9078	0.9079	0.9080	0.9079	0.9079	0.9080	0.9078	0.9079
Adjusted R-squared	0.9070	0.9068	0.9069	0.9070	0.9069	0.9070	0.9070	0.9069	0.9069
F-statistic	915.6428	914.4343	915.1923	916.0509	914.8320	915.6249	915.7327	914.5263	915.3531
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel N.2. RPTS ENTITY SHAREHOLDERS (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 64			Model 65		
	RPTENTITY_SH			RPTENTITY_SH		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0002 (-0.0054)	0.0001 (0.0032)	-0.0021 (-0.0471)	-0.0107 (-0.2626)	-0.0059 (-0.1438)	-0.0116 (-0.2844)
RPTENTITY_SH(-1)	0.9408 *** (71.1877)	0.9409 *** (70.9791)	0.9420 *** (71.6236)	0.9502 *** (80.0865)	0.9494 *** (79.9810)	0.9514 *** (80.5989)
INDBOC	0.0032 (0.1313)	0.0030 (0.1250)	-0.0020 * (-0.0810)			
BOCCOM				0.0026 (0.2885)	0.0021 (0.2328)	0.0023 (0.2554)
ROA(-1)	0.0313 (1.3885)			0.0280 (1.3909)		
CFO(-1)		0.0248 (1.1210)			0.0346 (1.7517)	
Tobin's Q(-1)			0.0016 (1.2979)			0.0014 (1.2618)
FSIZE	-0.0002 (-0.1062)	-0.0001 (-0.0385)	0.0001 (0.0413)	0.0002 (0.1596)	0.0001 (0.0871)	0.0004 (0.2521)
LEVERAGE	0.0031 (0.3118)	-0.0007 (-0.0716)	-0.0007 (-0.0735)	0.0015 (0.1660)	-0.0015 (-0.1720)	-0.0021 (-0.2494)
GROWTH	-0.0018 (-0.2651)	-0.0024 (-0.3554)	-0.0033 (-0.4806)	-0.0020 (-0.3267)	-0.0023 (-0.3811)	-0.0033 (-0.5368)
R-squared	0.9079	0.9078	0.9079	0.9263	0.9265	0.9263
Adjusted R-squared	0.9070	0.9068	0.9069	0.9255	0.9257	0.9255
F-statistic	915.6325	914.4214	915.1934	1160.6230	1163.1780	1159.8510
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel O.1. RPTS ENTITY ASSOCIATES (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 66			Model 67			Model 68		
	RPTENTITY_ASSC			RPTENTITY_ASSC			RPTENTITY_ASSC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0112 (-0.3500)	-0.0093 (-0.2883)	-0.0093 (-0.2871)	-0.0208 (-0.6436)	-0.0156 (-0.4841)	-0.0164 (-0.5068)	-0.0186 (-0.5929)	-0.0153 (-0.4843)	-0.0153 (-0.4841)
RPTENTITY_ASSC(-1)	0.9084 *** (60.6929)	0.9087 *** (59.2834)	0.9092 *** (60.2608)	0.9072 *** (59.1585)	0.9081 *** (58.0030)	0.9077 *** (58.7897)	0.9047 *** (59.5945)	0.9054 *** (58.1495)	0.9057 *** (59.1858)
BODSIZE	0.0147 *** (2.7292)	0.0129 ** (2.3622)	0.0128 ** (2.3762)						
BOCSIZE				0.0100 * (1.6720)	0.0096 (1.5893)	0.0097 (1.6074)			
BOARDSIZE							0.0196 *** (2.7335)	0.0178 ** (2.4349)	0.0177 ** (2.4561)
ROA(-1)	-0.0419 *** (-2.6784)			-0.0363 * (-2.3327)			-0.0407 *** (-2.6114)		
CFO(-1)		-0.0058 (-0.3668)			-0.0001 (-0.0094)			-0.0051 (-0.3274)	
Tobin's Q(-1)			-0.0004 (-0.5284)			-0.0003 (-0.3696)			-0.0005 (-0.5372)
FSIZE	-0.0002 (-0.1852)	-0.0005 (-0.3777)	-0.0005 (-0.3646)	0.0004 (0.3163)	0.0000 (-0.0158)	0.0000 (0.0188)	-0.0007 (-0.5324)	-0.0009 (-0.7047)	-0.0009 (-0.6923)
LEVERAGE	0.0021 (0.3080)	0.0085 (1.3049)	0.0085 (1.3010)	0.0005 (0.0756)	0.0066 (1.0245)	0.0064 (0.9945)	0.0021 (0.2973)	0.0084 (1.2871)	0.0083 (1.2807)
GROWTH	0.0004 (0.0848)	0.0018 (0.3729)	0.0020 (0.4182)	0.0010 (0.1997)	0.0022 (0.4703)	0.0023 (0.4853)	0.0010 (0.2034)	0.0023 (0.4757)	0.0025 (0.5181)
R-squared	0.8761	0.8746	0.8746	0.8751	0.8739	0.8739	0.8761	0.8746	0.8747
Adjusted R-squared	0.8748	0.8732	0.8732	0.8738	0.8725	0.8726	0.8748	0.8733	0.8733
F-statistic	656.5993	647.2489	647.4409	650.4215	643.2311	643.4115	656.6301	647.7077	647.9488
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel O.2. RPTS ENTITY ASSOCIATES (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 69			Model 70		
	RPTENTITY_ASSC			RPTENTITY_ASSC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0372 (-1.2028)	-0.0311 (-0.9959)	-0.0321 (-1.0345)	-0.0369 (-1.1665)	-0.0316 (-0.9872)	-0.0328 (-1.0320)
RPTENTITY_ASSC(-1)	0.9126 *** (60.8621)	0.9134 *** (59.8705)	0.9129 *** (60.5528)	0.9121 *** (60.1558)	0.9131 *** (59.1258)	0.9126 *** (59.8051)
INDBOC	-0.0084 (-0.4984)	-0.0113 (-0.6582)	-0.0103 (-0.5934)			
BOCCOM				-0.0029 (-0.4071)	-0.0025 (-0.3481)	-0.0025 (-0.3526)
ROA(-1)	-0.0349 ** (-2.2385)			-0.0356 ** (-2.2742)		
CFO(-1)		0.0026 (0.1649)			0.0016 (0.1004)	
Tobin's Q(-1)			-0.0001 (-0.1585)			-0.0003 (-0.3107)
FSIZE	0.0016 (1.4731)	0.0012 (1.0669)	0.0012 (1.1216)	0.0015 (1.4051)	0.0011 (0.9755)	0.0012 (1.0511)
LEVERAGE	0.0002 (0.0248)	0.0063 (0.9681)	0.0060 (0.9315)	-0.0002 (-0.0232)	0.0061 (0.9251)	0.0058 (0.8853)
GROWTH	0.0004 (0.0771)	0.0017 (0.3516)	0.0017 (0.3470)	0.0004 (0.0890)	0.0018 (0.3685)	0.0018 (0.3728)
R-squared	0.8745	0.8734	0.8734	0.8745	0.8733	0.8733
Adjusted R-squared	0.8732	0.8720	0.8720	0.8731	0.8719	0.8719
F-statistic	647.0394	640.4782	640.4755	643.1581	636.3688	636.4825
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel P.1. RPTS ENTITY OTHER AFFILIATES (Dependent Variable) and BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 71			Model 72			Model 73		
	RPTENTITY_OAFF			RPTENTITY_OAFF			RPTENTITY_OAFF		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0599 (0.4533)	0.0541 (0.4089)	0.0573 (0.4339)	0.0708 (0.5324)	0.0588 (0.4418)	0.0655 (0.4929)	0.0643 (0.4964)	0.0554 (0.4278)	0.0603 (0.4656)
RPTENTITY_OAFF(-1)	0.9382 *** (50.3826)	0.9409 *** (51.2819)	0.9403 *** (51.2914)	0.9383 *** (50.3763)	0.9409 *** (51.2702)	0.9403 *** (51.2770)	0.9383 *** (50.3918)	0.9410 *** (51.2776)	0.9404 *** (51.2843)
BODSIZE	-0.0099 (-0.4449)	-0.0059 (-0.2654)	-0.0079 (-0.3600)						
BOCSIZE				-0.0041 (-0.1680)	-0.0033 (-0.1375)	-0.0038 (-0.1570)			
BOARDSIZE							-0.0129 (-0.4423)	-0.0089 (-0.3036)	-0.0110 (-0.3790)
ROA(-1)	0.0434 (0.6588)			0.0393 (0.6031)			0.0424 (0.6461)		
CFO(-1)		-0.0285 (-0.4473)			-0.0313 (-0.4979)			-0.0289 (-0.4556)	
Tobin's Q(-1)			0.0004 (0.1160)			0.0003 (0.0890)			0.0004 (0.1151)
FSIZE	-0.0014 (-0.2800)	-0.0010 (-0.2035)	-0.0012 (-0.2326)	-0.0022 (-0.4154)	-0.0014 (-0.2644)	-0.0017 (-0.3362)	-0.0011 (-0.2002)	-0.0007 (-0.1284)	-0.0009 (-0.1554)
LEVERAGE	0.0029 (0.1018)	-0.0055 (-0.2046)	-0.0039 (-0.1439)	0.0041 (0.1437)	-0.0046 (-0.1723)	-0.0024 (-0.0922)	0.0030 (0.1056)	-0.0055 (-0.2056)	-0.0037 (-0.1393)
GROWTH	0.0322 (1.6352)	0.0302 (1.5435)	0.0307 (1.5677)	0.0320 (1.6202)	0.0301 (1.5317)	0.0306 (1.5598)	0.0318 (1.6142)	0.0300 (1.5283)	0.0304 (1.5497)
R-squared	0.8263	0.8262	0.8261	0.8262	0.8262	0.8261	0.8263	0.8262	0.8261
Adjusted R-squared	0.8244	0.8243	0.8243	0.8243	0.8243	0.8242	0.8244	0.8243	0.8243
F-statistic	441.5241	441.2998	441.1210	441.3614	441.2504	441.0204	441.5219	441.3207	441.1344
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel P.2. RPTS ENTITY OTHER AFFILIATES (Dependent Variable) and INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 74			Model 75		
	RPTENTITY_OAFF			RPTENTITY_OAFF		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0773 (0.6167)	0.0645 (0.5136)	0.0733 (0.5851)	0.0727 (0.5660)	0.0588 (0.4562)	0.0674 (0.5250)
RPTENTITY_OAFF(-1)	0.9344 *** (49.8938)	0.9376 *** (50.8508)	0.9365 *** (50.8039)	0.9349 *** (49.7893)	0.9378 *** (50.7093)	0.9371 *** (50.7111)
INDBOC	-0.1147 (-1.6458)	-0.1076 (-1.5425)	-0.1182 * (-1.6526)			
BOCCOM				0.0427 (1.4671)	0.0420 (1.4442)	0.0419 (1.4400)
ROA(-1)	0.0488 (0.7474)			0.0430 (0.6577)		
CFO(-1)		-0.0221 (-0.3521)			-0.0324 (-0.5146)	
Tobin's Q(-1)			0.0017 (0.4781)			0.0004 (0.1039)
FSIZE	-0.0010 (-0.2299)	-0.0002 (-0.0548)	-0.0006 (-0.1421)	-0.0031 (-0.6901)	-0.0021 (-0.4800)	-0.0026 (-0.5887)
LEVERAGE	0.0076 (0.2638)	-0.0024 (-0.0891)	0.0005 (0.0185)	0.0076 (0.2622)	-0.0019 (-0.0712)	0.0003 (0.0108)
GROWTH	0.0315 (1.6063)	0.0296 (1.5111)	0.0295 (1.5117)	0.0317 (1.6093)	0.0297 (1.5117)	0.0302 (1.5415)
R-squared	0.8271	0.8270	0.8269	0.8267	0.8267	0.8266
Adjusted R-squared	0.8252	0.8251	0.8251	0.8249	0.8248	0.8247
F-statistic	443.9319	443.5135	443.6142	440.5523	440.3911	440.1470
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel Q.1. RPTS ENTITY SHAREHOLDERS (Dependent Variable) and RPTS ENTITY ASSOCIATES, RPTENTITY OTHER AFFILIATES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 76			Model 77			Model 78		
	RPTENTITY_SH			RPTENTITY_SH			RPTENTITY_SH		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0033 (-0.0684)	-0.0028 (-0.0572)	-0.0043 (-0.0893)	0.0074 (0.1553)	0.0072 (0.1505)	0.0049 (0.1024)	0.0027 (0.0586)	0.0029 (0.0615)	0.0009 (0.0199)
RPTENTITY_SH(-1)	0.9427 *** (68.4703)	0.9425 *** (68.2880)	0.9434 *** (68.5535)	0.9417 *** (70.3739)	0.9416 *** (70.0617)	0.9427 *** (70.6078)	0.9412 *** (68.8224)	0.9411 *** (68.6236)	0.9421 *** (68.9523)
RPTENTITY_ASSC	-0.0044 (-0.1970)	-0.0025 (-0.1117)	-0.0049 (-0.2189)	-0.0081 (-0.3562)	-0.0062 (-0.2708)	-0.0082 (-0.3619)	-0.0067 (-0.2930)	-0.0049 (-0.2145)	-0.0071 (-0.3115)
RPTENTITY_OAFF	-0.0051 (-0.7980)	-0.0038 (-0.5972)	-0.0038 (-0.6008)	-0.0050 (-0.7852)	-0.0037 (-0.5883)	-0.0037 (-0.5965)	-0.0049 (-0.7749)	-0.0037 (-0.5807)	-0.0037 (-0.5877)
BODSIZE	-0.0013 (-0.1583)	-0.0012 (-0.1485)	-0.0005 (-0.0614)						
BOCSIZE				0.0050 (0.5743)	0.0048 (0.5490)	0.0050 (0.5724)			
BOARDSIZE							0.0033 (0.3090)	0.0033 (0.3074)	0.0039 (0.3639)
ROA(-1)	0.0348 (1.5027)			0.0338 (1.4757)			0.0334 (1.4489)		
CFO(-1)		0.0256 (1.1257)			0.0242 (1.0776)			0.0239 (1.0539)	
Tobin's Q(-1)			0.0016 (1.3166)			0.0016 (1.2931)			0.0016 (1.2779)
FSIZE	0.0001 (0.0324)	0.0002 (0.0914)	0.0002 (0.0874)	-0.0007 (-0.3527)	-0.0005 (-0.2720)	-0.0005 (-0.2475)	-0.0005 (-0.2407)	-0.0004 (-0.1790)	-0.0004 (-0.1798)
LEVERAGE	0.0042 (0.4102)	-0.0003 (-0.0346)	-0.0003 (-0.0286)	0.0045 (0.4442)	0.0001 (0.0077)	0.0001 (0.0074)	0.0045 (0.4449)	0.0002 (0.0163)	0.0002 (0.0219)
GROWTH	-0.0019 (-0.2767)	-0.0026 (-0.3747)	-0.0034 (-0.4979)	-0.0016 (-0.2385)	-0.0023 (-0.3374)	-0.0031 (-0.4540)	-0.0018 (-0.2659)	-0.0025 (-0.3621)	-0.0033 (-0.4764)
R-squared	0.9081	0.9079	0.9080	0.9081	0.9079	0.9080	0.9081	0.9079	0.9080
Adjusted R-squared	0.9067	0.9066	0.9067	0.9068	0.9066	0.9067	0.9068	0.9066	0.9067
F-statistic	685.2204	683.8784	684.5096	685.6347	684.2576	684.9496	685.3162	683.9768	684.6844
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel Q.2. RPTS ENTITY SHAREHOLDERS (Dependent Variable) and RPTS ENTITY ASSOCIATES, RPTENTITY OTHER AFFILIATES & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 79			Model 80		
	RPTENTITY_SH			RPTENTITY_SH		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0008 (-0.0174)	-0.0005 (-0.0103)	-0.0033 (-0.0735)	-0.0105 (-0.2530)	-0.0051 (-0.1223)	-0.0121 (-0.2927)
RPTENTITY_SH(-1)	0.9421 *** (70.5009)	0.9420 *** (70.1649)	0.9432 *** (70.7446)	0.9517 *** (79.4230)	0.9508 *** (79.1583)	0.9527 *** (79.7054)
RPTENTITY_ASSC	-0.0050 (0.2248)	-0.0031 (-0.1385)	-0.0053 (-0.2401)	-0.0032 (-0.1617)	0.0002 (0.0105)	-0.0036 (-0.1790)
RPTENTITY_OAFF	-0.0050 (-0.7816)	-0.0037 (-0.5810)	-0.0039 (-0.6180)	-0.0056 (-0.9807)	-0.0046 (-0.8055)	-0.0044 (-0.7837)
INDBOC	0.0001 (0.0033)	0.0010 (0.0388)	-0.0046 (-0.1808)			
BOCCOM				0.0035 (0.3842)	0.0030 (0.3260)	0.0030 (0.3201)
ROA(-1)	0.0342 (1.4893)			0.0312 (1.5214)		
CFO(-1)		0.0249 (1.1097)			0.0351 * (1.7531)	
Tobin's Q(-1)			0.0017 (1.3218)			0.0014 (1.2737)
FSIZE	-0.0001 (-0.0611)	0.0000 (0.0056)	0.0002 (0.1017)	0.0002 (0.1460)	0.0001 (0.0707)	0.0004 (0.2689)
LEVERAGE	0.0043 (0.4217)	-0.0002 (-0.0194)	-0.0001 (-0.0093)	0.0027 (0.2963)	-0.0009 (-0.1110)	-0.0015 (-0.1797)
GROWTH	-0.0019 (-0.2778)	-0.0026 (-0.3742)	-0.0034 (-0.5036)	-0.0021 (-0.3399)	-0.0025 (-0.4027)	-0.0034 (-0.5622)
R-squared	0.9081	0.9079	0.9080	0.9264	0.9265	0.9264
Adjusted R-squared	0.9067	0.9066	0.9067	0.9254	0.9255	0.9253
F-statistic	685.1863	683.8505	684.5489	869.0581	870.3422	867.8865
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel R.1. RPTS ENTITY ASSOCIATES (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTENTITY OTHER AFFILIATES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 81			Model 82			Model 83		
	RPTENTITY_ASSC			RPTENTITY_ASSC			RPTENTITY_ASSC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0088 (-0.2672)	-0.0049 (-0.1460)	-0.0048 (-0.1451)	-0.0221 (-0.6694)	-0.0148 (-0.4448)	-0.0157 (-0.4738)	-0.0169 (-0.5232)	-0.0115 (-0.3528)	-0.0115 (-0.3553)
RPTENTITY_ASSC(-1)	0.9078 *** (60.2993)	0.9085 *** (58.9685)	0.9089 *** (59.9078)	0.9071 *** (58.8653)	0.9082 *** (57.7629)	0.9078 *** (58.5200)	0.9041 *** (59.1450)	0.9051 *** (57.7998)	0.9053 *** (58.7726)
RPTENTITY_SH	-0.0036 (-0.3743)	-0.0050 (-0.5197)	-0.0051 (-0.5319)	0.0013 (0.1433)	-0.0008 (-0.0864)	-0.0006 (-0.0675)	-0.0030 (-0.3187)	-0.0046 (-0.4848)	-0.0047 (-0.4949)
RPTENTITY_OAFF	0.0014 (0.3133)	-0.0005 (-0.1196)	-0.0005 (-0.1144)	0.0008 (0.1788)	-0.0009 (-0.2036)	-0.0008 (-0.1901)	0.0012 (0.2745)	-0.0006 (-0.1429)	-0.0006 (-0.1353)
BODSIZE	0.0152 *** (2.7448)	0.0136 ** (2.4133)	0.0135 ** (2.4309)						
BOCSIZE				0.0100 * (1.6568)	0.0096 (1.5891)	0.0097 (1.6063)			
BOARDSIZE							0.0201 *** (2.7391)	0.0185 ** (2.4786)	0.0185 ** (2.5024)
ROA(-1)	-0.0423 *** (-2.6478)			-0.0370 ** (-2.3296)			-0.0410 ** (-2.5759)		
CFO(-1)		-0.0049 (-0.3093)			0.0002 (0.0139)			-0.0042 (-0.2678)	
Tobin's Q(-1)			-0.0004 (-0.5018)			-0.0003 (-0.3560)			-0.0004 (-0.5103)
FSIZE	-0.0003 (-0.2584)	-0.0006 (-0.4967)	-0.0006 (-0.4851)	0.0004 (0.3444)	0.0000 (-0.0368)	0.0000 (0.0022)	-0.0008 (-0.5822)	-0.0011 (-0.8052)	-0.0011 (-0.7942)
LEVERAGE	0.0016 (0.2290)	0.0080 (1.2115)	0.0080 (1.2013)	0.0005 (0.0762)	0.0066 (0.9967)	0.0064 (0.9670)	0.0016 (0.2275)	0.0079 (1.1967)	0.0078 (1.1834)
GROWTH	0.0004 (0.0753)	0.0017 (0.3485)	0.0018 (0.3884)	0.0010 (0.2054)	0.0022 (0.4604)	0.0023 (0.4743)	0.0009 (0.1983)	0.0022 (0.4560)	0.0024 (0.4935)
R-squared	0.8762	0.8746	0.8747	0.8751	0.8739	0.8739	0.8762	0.8747	0.8747
Adjusted R-squared	0.8744	0.8728	0.8729	0.8733	0.8721	0.8721	0.8744	0.8729	0.8729
F-statistic	490.8942	484.0005	484.1562	486.1243	480.7453	480.8707	490.8628	484.3157	484.5039
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel R.2. RPTS ENTITY ASSOCIATES (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTENTITY OTHER AFFILIATES & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 84			Model 85		
	RPTENTITY_ASSC			RPTENTITY_ASSC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.0388 (-1.2315)	-0.0305 (-0.9588)	-0.0318 (-1.0065)	-0.0389 (-1.2076)	-0.0313 (-0.9606)	-0.0328 (-1.0139)
RPTENTITY_ASSC(-1)	0.9126 *** (60.6285)	0.9137 *** (59.6654)	0.9132 *** (60.3352)	0.9119 *** (59.8023)	0.9133 *** (58.8037)	0.9128 *** (59.4845)
RPTENTITY_SH	0.0023 (0.2485)	0.0000 (0.0033)	0.0003 (0.0339)	0.0025 (0.2657)	0.0002 (0.0158)	0.0004 (0.0458)
RPTENTITY_OAFF	0.0004 (0.0979)	-0.0013 (-0.3016)	-0.0013 (-0.2826)	0.0010 (0.2275)	-0.0007 (-0.1623)	-0.0006 (-0.1455)
INDBOC	-0.0081 (-0.4751)	-0.0119 (-0.6912)	-0.0110 (-0.6257)			
BOCCOM				-0.0033 (-0.4511)	-0.0023 (-0.3220)	-0.0024 (-0.3306)
ROA(-1)	-0.0357 ** (-2.2328)			-0.0368 ** (-2.2951)		
CFO(-1)		0.0029 (0.1834)			0.0017 (0.1069)	
Tobin's Q(-1)			-0.0001 (-0.1382)			-0.0003 (-0.3051)
FSIZE	0.0017 (1.4941)	0.0012 (1.0507)	0.0012 (1.1133)	0.0016 (1.4421)	0.0011 (0.9544)	0.0012 (1.0375)
LEVERAGE	0.0003 (0.0484)	0.0064 (0.9628)	0.0062 (0.9297)	-0.0001 (-0.0102)	0.0061 (0.9163)	0.0059 (0.8802)
GROWTH	0.0004 (0.0866)	0.0016 (0.3415)	0.0016 (0.3365)	0.0005 (0.1007)	0.0017 (0.3632)	0.0018 (0.3685)
R-squared	0.8745	0.8734	0.8734	0.8745	0.8733	0.8733
Adjusted R-squared	0.8727	0.8716	0.8716	0.8727	0.8715	0.8715
F-statistic	483.6152	478.7251	478.7107	480.7650	475.5796	475.6601
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel S.1. RPTS ENTITY OTHER AFFILIATES (Dependent Variable) and RPTS ENTITY SHAREHOLDERS S, RPTENTITY ASSOCIATES & BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 86			Model 87			Model 88		
	RPTENTITY_OAFF			RPTENTITY_OAFF			RPTENTITY_OAFF		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0447 (0.3260)	0.0345 (0.2517)	0.0403 (0.2944)	0.0613 (0.4509)	0.0453 (0.3318)	0.0546 (0.4029)	0.0519 (0.3885)	0.0389 (0.2905)	0.0462 (0.3460)
RPTENTITY_OAFF(-1)	0.9355 *** (49.6918)	0.9381 *** (50.5230)	0.9376 *** (50.5298)	0.9361 *** (49.7641)	0.9385 *** (50.5607)	0.9379 *** (50.5530)	0.9357 *** (49.7382)	0.9383 *** (50.5512)	0.9377 *** (50.5532)
RPTENTITY_SH	0.0316 (0.8014)	0.0346 (0.8755)	0.0331 (0.8399)	0.0262 (0.6801)	0.0307 (0.7939)	0.0282 (0.7330)	0.0314 (0.7980)	0.0347 (0.8812)	0.0330 (0.8416)
RPTENTITY_ASSC	0.0456 (0.7136)	0.0375 (0.5789)	0.0429 (0.6718)	0.0440 (0.6768)	0.0363 (0.5516)	0.0420 (0.6462)	0.0500 (0.7693)	0.0414 (0.6285)	0.0472 (0.7271)
BODSIZE	-0.0162 (-0.7046)	-0.0124 (-0.5336)	-0.0144 (-0.6282)						
BOCSIZE				-0.0089 (-0.3575)	-0.0076 (-0.3057)	-0.0085 (-0.3429)			
BOARDSIZE							-0.0228 (-0.7433)	-0.0185 (-0.6002)	-0.0209 (-0.6843)
ROA(-1)	0.0437 (0.6591)			0.0379 (0.5771)			0.0427 (0.6466)		
CFO(-1)		-0.0268 (-0.4115)			-0.0318 (-0.4954)			-0.0270 (-0.4155)	
Tobin's Q(-1)			0.0005 (0.1370)			0.0003 (0.0959)			0.0005 (0.1424)
FSIZE	-0.0007 (-0.1295)	-0.0002 (-0.0288)	-0.0004 (-0.0725)	-0.0017 (-0.3209)	-0.0008 (-0.1548)	-0.0012 (-0.2386)	0.0000 (-0.0059)	0.0005 (0.0828)	0.0003 (0.0467)
LEVERAGE	0.0050 (0.1702)	-0.0028 (-0.1017)	-0.0016 (-0.0570)	0.0062 (0.2134)	-0.0014 (-0.0512)	0.0002 (0.0092)	0.0049 (0.1673)	-0.0029 (-0.1048)	-0.0016 (-0.0573)
GROWTH	0.0328 * (1.6667)	0.0310 (1.5777)	0.0314 (1.5989)	0.0323 (1.6341)	0.0305 (1.5521)	0.0310 (1.5772)	0.0322 (1.6324)	0.0305 (1.5503)	0.0308 (1.5672)
R-squared	0.8266	0.8265	0.8265	0.8265	0.8265	0.8264	0.8266	0.8266	0.8265
Adjusted R-squared	0.8241	0.8240	0.8240	0.8240	0.8240	0.8239	0.8241	0.8241	0.8240
F-statistic	330.7321	330.5412	330.4328	330.4666	330.4035	330.2334	330.7725	330.5956	330.4858
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel S.2. RPTS ENTITY OTHER AFFILIATES (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTENTITY ASSOCIATES & INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 89			Model 90		
	RPTENTITY_OAFF			RPTENTITY_OAFF		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	0.0730	0.0556	0.0680	0.0771	0.0583	0.0701
	(0.5647)	(0.4272)	(0.5268)	(0.5836)	(0.4371)	(0.5307)
RPTENTITY_OAFF(-1)	0.9324 ***	0.9353 ***	0.9343 ***	0.9325 ***	0.9351 ***	0.9345 ***
	(49.3073)	(50.1631)	(50.1017)	(49.1404)	(49.9660)	(49.9579)
RPTENTITY_SH	0.0254	0.0299	0.0271	0.0232	0.0282	0.0255
	(0.6612)	(0.7758)	(0.7084)	(0.5988)	(0.7261)	(0.6603)
RPTENTITY_ASSC	0.0323	0.0264	0.0314	0.0530	0.0455	0.0508
	(0.5128)	(0.4149)	(0.4980)	(0.8306)	(0.7051)	(0.7963)
INDBOC	-0.1127	-0.1061	-0.1163			
	(-1.6115)	(-1.5163)	(-1.6214)			
BOCCOM				0.0454	0.0441	0.0444
				(1.5402)	(1.4956)	(1.5071)
ROA(-1)	0.0463			0.0426		
	(0.7045)			(0.6465)		
CFO(-1)		-0.0246			-0.0315	
		(-0.3830)			(-0.4900)	
Tobin's Q(-1)			0.0017			0.0004
			(0.4632)			(0.1212)
FSIZE	-0.0010	-0.0001	-0.0006	-0.0034	-0.0023	-0.0029
	(-0.2217)	(-0.0197)	(-0.1333)	(-0.7391)	(-0.4984)	(-0.6320)
LEVERAGE	0.0099	0.0011	0.0035	0.0096	0.0011	0.0028
	(0.3409)	(0.0402)	(0.1294)	(0.3265)	(0.0408)	(0.1015)
GROWTH	0.0321	0.0302	0.0302	0.0323	0.0303	0.0308
	(1.6307)	(1.5404)	(1.5420)	(1.6357)	(1.5438)	(1.5695)
R-squared	0.8273	0.8272	0.8272	0.8271	0.8270	0.8269
Adjusted R-squared	0.8248	0.8247	0.8247	0.8245	0.8245	0.8244
F-statistic	332.2449	331.9921	332.0412	329.9609	329.8325	329.6697
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

APPENDIX F: Results of Augmented Regressions for the Durbin-Wu-Hausman Test

Panel A.1. Firm Performance (Dependent Variable) and RPTS TOTAL, BODSIZE, BOCSIZE, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 1			Model 2			Model 3		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0471 (-0.5216)	-0.1314 (-1.4595)	-0.7168 (-0.4043)	-0.0992 (-1.0929)	-0.2012 ** (-2.2168)	-1.3759 (-0.7728)	-0.0713 * (-0.8068)	-0.1634 * (-1.8496)	-0.9619 (-0.5542)
RPTTOTAL	0.0432 *** (3.9633)	0.0170 (1.5653)	0.2813 (1.3124)	0.0466 *** (4.2838)	0.0213 * (1.9585)	0.3254 (1.5223)	0.0434 *** (3.9528)	0.0174 (1.5888)	0.2751 (1.2758)
BODSIZE	0.0340 ** (2.2601)	0.0407 *** (2.7116)	0.4703 (1.5905)						
BOCSIZE				0.0087 (0.5252)	0.0063 (0.3841)	0.1528 (0.4724)			
BOARDSIZE							0.0368 * (1.8439)	0.0416 ** (2.0834)	0.5848 * (1.4909)
FSIZE	0.0061 * (1.7619)	0.0064 * (1.8296)	0.0727 * (1.0592)	0.0095 *** (2.7041)	0.0109 *** (3.0920)	0.1151 * (1.6701)	0.0060 * (1.5758)	0.0065 * (1.7092)	0.0613 * (0.8202)
LEVERAGE	-0.1639 *** (-9.0472)	-0.0605 *** (-3.3472)	-0.3081 (-0.8657)	-0.1710 *** (-9.5527)	-0.0692 *** (-3.8690)	-0.4045 (-1.1525)	-0.1659 *** (-9.1816)	-0.0633 *** (-3.5091)	-0.3255 (-0.9176)
GROWTH	0.0224 * (1.6973)	0.0110 (0.8314)	-0.0875 (-0.3371)	0.0226 * (1.6974)	0.0109 (0.8198)	-0.0836 (-0.3208)	0.0233 * (1.7621)	0.0120 (0.9044)	-0.0722 (-0.2779)
RESIDUAL	-0.0117 (-0.4576)	-0.0193 (-0.7608)	-0.0961 (-0.1927)	-0.0156 (-0.6100)	-0.0233 (-0.9142)	-0.1424 (-0.2855)	-0.0123 (-0.4806)	-0.0197 (-0.7739)	-0.0923 (-0.1847)
R-squared	0.1978	0.0754	0.0209	0.1909	0.0634	0.0169	0.1954	0.0704	0.0204
Adjusted R-squared	0.1891	0.0654	0.0104	0.1821	0.0533	0.0063	0.1867	0.0604	0.0099
F-statistic	22.8866	7.5655	1.9850	21.8978	6.2791	1.5948	22.5402	7.0296	1.9336
Prob Stat	0.0000	0.0000	0.0659	0.0000	0.0000	0.1463	0.0000	0.0000	0.0735
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel A.2. Firm Performance (Dependent Variable) and RPTS TOTAL, INDBOC, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 4			Model 5		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)
C	-0.1144 (-1.3508)	-0.2124 ** (-2.5016)	-1.6366 (-1.0143)	-0.0876 (-1.0056)	-0.2223 ** (-2.5539)	-1.7146 (-0.9994)
RPTTOTAL	0.0510 *** (4.7241)	0.0250 ** (2.3124)	0.5088 ** (2.4701)	0.0488 *** (4.5079)	0.0233 ** (2.1513)	0.3395 (1.5903)
INDBOC	0.1429 *** (3.0384)	0.1186 ** (2.5165)	5.8530 *** (6.5349)			
BOCCOM				-0.0394 ** (-2.0029)	-0.0126 (-0.6391)	-0.0378 (-0.0975)
FSIZE	0.0084 *** (2.8443)	0.0099 *** (3.3228)	0.0479 (0.8464)	0.0102 *** (3.4299)	0.0121 *** (4.0784)	0.1357 ** (2.3223)
LEVERAGE	-0.1736 *** (-9.7808)	-0.0713 *** (-4.0112)	-0.4996 (-1.4781)	-0.1756 *** (-9.7821)	-0.0700 *** (-3.8995)	-0.4146 (-1.1724)
GROWTH	0.0232 * (1.7642)	0.0115 (0.8718)	-0.0439 (-0.1750)	0.0222 * (1.6744)	0.0108 (0.8197)	-0.0910 (-0.3489)
RESIDUAL	-0.0160 (-0.6296)	-0.0246 (-0.9657)	-0.2603 (-0.5393)	-0.0151 (-0.5891)	-0.0305 (-1.1935)	-0.1516 (-0.3016)
R-squared	0.2034	0.0733	0.0864	0.1960	0.0657	0.0165
Adjusted R-squared	0.1948	0.0633	0.0766	0.1873	0.0556	0.0059
F-statistic	23.6982	7.3410	8.7802	22.5034	6.4920	1.5512
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.1593
Number of Observations	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.1. Firm Performance (Dependent Variable) and RPTS SALES, RPTS PURCHASES, BODSIZE (Independent Variables)

Coefficient t-Statistic	Model 6			Model 7			Model 8		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0083 (-0.0908)	-0.1272 (-1.4097)	-0.0266 (-0.0149)	-0.0041 (-0.0457)	-0.1093 (-1.2261)	-0.4599 (-0.2624)	-0.0118 (-0.1310)	-0.1264 (-1.3993)	-0.0587 (-0.0331)
RPTSALES	0.0266 (1.0789)	0.0290 (1.1874)	-0.5555 (-1.1559)				0.0130 (0.5261)	0.0295 (1.1911)	-0.6947 (-1.4257)
RPTPURCHASES				0.0578 *** (3.4575)	-0.0023 (-0.1379)	0.4886 (1.4955)	0.0573 *** (3.3978)	-0.0055 (-0.3249)	0.5670 * (1.7097)
BODSIZE	0.0371 ** (2.2898)	0.0372 ** (2.3125)	0.6774 ** (2.1397)	0.0483 *** (3.2292)	0.0444 *** (2.9877)	0.5717 * (1.9550)	0.0449 *** (2.7646)	0.0366 ** (2.2515)	0.7558 ** (2.3640)
FSIZE	0.0049 (1.3699)	0.0064 * (1.8254)	0.0419 (0.6035)	0.0039 (1.1316)	0.0055 (1.6096)	0.0579 (0.8539)	0.0043 (1.2253)	0.0065 * (1.8296)	0.0363 (0.5230)
LEVERAGE	-0.1557 *** (-8.5239)	-0.0559 *** (-3.0838)	-0.3098 (-0.8689)	-0.1553 *** (-8.5634)	-0.0581 *** (-3.2220)	-0.2478 (-0.6985)	-0.1543 *** (-8.5235)	-0.0560 *** (-3.0897)	-0.2971 (-0.8336)
GROWTH	0.0203 (1.5305)	0.0105 (0.7971)	-0.1156 (-0.4454)	0.0218 (1.6474)	0.0098 (0.7462)	-0.0872 (-0.3363)	0.0221 * (1.6754)	0.0103 (0.7818)	-0.0984 (-0.3791)
RESIDUALRPTSALES	0.1360 ** (2.2447)	-0.0163 (-0.2706)	0.2055 (0.1738)				0.1495 ** (2.4706)	-0.0130 (-0.2149)	0.3624 (0.3047)
RESIDUALRPTPURCHASES				-0.0253 (-0.5833)	-0.0289 (-0.6702)	-0.4056 (-0.4785)	-0.0302 (-0.6980)	-0.0262 (-0.6045)	-0.4914 (-0.5769)
R-squared	0.1867	0.0737	0.0201	0.1908	0.0723	0.0216	0.2037	0.0749	0.0253
Adjusted R-squared	0.1780	0.0637	0.0096	0.1821	0.0623	0.0110	0.1922	0.0616	0.0112
F-statistic	21.3166	7.3867	1.9087	21.8859	7.2377	2.0455	17.7471	5.6171	1.8001
Prob Stat	0.0000	0.0000	0.0774	0.0000	0.0000	0.0580	0.0000	0.0000	0.0744
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.2. Firm Performance (Dependent Variable) and RPTS SALES, RPTS PURCHASES, BOCSIZE (Independent Variables)

Coefficient t-Statistic	Model 9			Model 10			Model 11		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0570 (-0.6285)	-0.1903 ** (-2.1138)	-0.9310 (-0.5259)	-0.0618 (-0.6810)	-0.1737 * (-1.9243)	-1.1365 (-0.6433)	-0.0719 (-0.7967)	-0.1869 ** (-2.0717)	-1.0642 (-0.6002)
RPTSALES	0.0461 ** (2.0025)	0.0500 ** (2.1905)	-0.2003 (-0.4462)				0.0378 (1.6401)	0.0512 ** (2.2240)	-0.2787 (-0.6158)
RPTPURCHASES				0.0534 *** (3.1850)	-0.0063 (-0.3792)	0.4367 (1.3373)	0.0510 *** (3.0391)	-0.0109 (-0.6521)	0.4602 (1.3956)
BOCSIZE	0.0135 (0.8115)	0.0057 (0.3454)	0.2378 (0.7333)	0.0183 (1.1098)	0.0106 (0.6455)	0.2204 (0.6868)	0.0146 (0.8823)	0.0055 (0.3342)	0.2479 (0.7642)
FSIZE	0.0080 ** (2.2632)	0.0104 *** (2.9943)	0.0992 (1.4457)	0.0079 ** (2.2355)	0.0099 *** (2.8352)	0.1041 (1.5212)	0.0082 ** (2.3516)	0.0104 *** (2.9733)	0.1015 (1.4786)
LEVERAGE	-0.1603 *** (-8.8038)	-0.0607 (-3.3619)	-0.3954 (-1.1127)	-0.1647 *** (-9.1450)	-0.0672 *** (-3.7493)	-0.3593 (-1.0251)	-0.1601 *** (-8.8494)	-0.0609 *** (-3.3656)	-0.3936 (-1.1074)
GROWTH	0.0210 (1.5687)	0.0107 (0.8069)	-0.1043 (-0.3995)	0.0220 (1.6386)	0.0096 (0.7179)	-0.0856 (-0.3283)	0.0226 * (1.6979)	0.0104 (0.7791)	-0.0900 (-0.3444)
RESIDUALRPTSALES	0.1141 ** (1.9083)	-0.0375 (-0.6322)	-0.1460 (-0.1251)				0.1226 ** (2.0523)	-0.0356 (-0.5971)	-0.0497 (-0.0424)
RESIDUALRPTPURCHASES				-0.0217 (-0.4977)	-0.0253 (-0.5833)	-0.3569 (-0.4200)	-0.0241 (-0.5552)	-0.0197 (-0.4527)	-0.3770 (-0.4413)
R-squared	0.1799	0.0650	0.0130	0.1775	0.0582	0.0157	0.1938	0.0667	0.0165
Adjusted R-squared	0.1711	0.0550	0.0024	0.1686	0.0480	0.0051	0.1822	0.0532	0.0023
F-statistic	20.3626	6.4572	1.2269	20.0307	5.7355	1.4794	16.6759	4.9555	1.1654
Prob Stat	0.0000	0.0000	0.2906	0.0000	0.0000	0.1829	0.0000	0.0000	0.3180
Number of Observations	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.3. Firm Performance (Dependent Variable) and RPTS SALES, RPTS PURCHASES, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 12			Model 13			Model 14		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0324 (-0.3656)	-0.1585 * (-1.8001)	-0.3878 (-0.2241)	-0.0329 (-0.3741)	-0.1410 (-1.6105)	-0.7489 (-0.4362)	-0.0413 (-0.4694)	-0.1569 * (-1.7800)	-0.4726 (-0.2732)
RPTSALES	0.0309 (1.2647)	0.0356 (1.4700)	-0.5109 (-1.0732)				0.0188 (0.7661)	0.0366 (1.4894)	-0.6343 (-1.3164)
RPTPURCHASES				0.0564 *** (3.3745)	-0.0038 (-0.2267)	0.4752 (1.4559)	0.0553 *** (3.2875)	-0.0076 (-0.4512)	0.5425 (1.6401)
BOARDSIZE	0.0426 ** (2.0113)	0.0365 * (1.7363)	0.8462 ** (2.0469)	0.0568 *** (2.8806)	0.0476 ** (2.4213)	0.7206 * (1.8706)	0.0508 ** (2.3973)	0.0356 * (1.6793)	0.9276 ** (2.2289)
FSIZE	0.0044 (1.1372)	0.0067 * (1.7459)	0.0252 (0.3331)	0.0031 (0.8370)	0.0054 (1.4445)	0.0430 (0.5848)	0.0038 (0.9988)	0.0068 * (1.7556)	0.0195 (0.2575)
LEVERAGE	-0.1570 *** (-8.6084)	-0.0578 *** (-3.1913)	-0.3294 (-0.9256)	-0.1576 *** (-8.7099)	-0.0610 *** (-3.3825)	-0.2686 (-0.7600)	-0.1561 *** (-8.6246)	-0.0580 *** (-3.1980)	-0.3204 (-0.9009)
GROWTH	0.0215 (1.6166)	0.0115 (0.8702)	-0.0918 (-0.3532)	0.0233 * (1.7487)	0.0110 (0.8268)	-0.0683 (-0.2627)	0.0234 * (1.7729)	0.0112 (0.8480)	-0.0731 (-0.2811)
RESIDUALRPTSALES	0.1293 ** (2.1376)	-0.0231 (-0.3851)	0.1531 (0.1298)				0.1412 ** (2.3377)	-0.0205 (-0.3396)	0.2945 (0.2483)
RESIDUALRPTPURCHASES				-0.0240 (-0.5526)	-0.0277 (-0.6397)	-0.3925 (-0.4631)	-0.0280 (-0.6462)	-0.0237 (-0.5460)	-0.4665 (-0.5477)
R-squared	0.1848	0.0699	0.0195	0.1877	0.0673	0.0210	0.2008	0.0712	0.0242
Adjusted R-squared	0.1760	0.0598	0.0089	0.1790	0.0572	0.0105	0.1892	0.0578	0.0102
F-statistic	21.0401	6.9723	1.8436	21.4556	6.6973	1.9910	17.4260	5.3169	1.7217
Prob Stat	0.0000	0.0000	0.0886	0.0000	0.0000	0.0651	0.0000	0.0000	0.0905
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.4. Firm Performance (Dependent Variable) and RPTS LENDING, RPTS LIABILITIES, BODSIZE (Independent Variables)

Coefficient t-Statistic	Model 15			Model 16			Model 17		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	0.0225 (0.2449)	-0.0877 (-0.9684)	0.4025 (0.2265)	-0.1072 (-1.1513)	-0.2138 ** (-2.3274)	-2.8965 (-1.6109)	-0.0937 (-0.9920)	-0.1928 ** (-2.0668)	-2.1353 (-1.1726)
RPTLENDING	-0.0877 (-0.8706)	-0.1308 (-1.3186)	-4.5119 ** (-2.3164)				-0.0922 (-0.9295)	-0.1306 (-1.3339)	-4.5213 ** (-2.3675)
RPTLIABILITIES				0.2386 *** (4.2391)	0.2161 *** (3.8613)	5.2690 *** (4.7689)	0.2430 *** (4.3175)	0.2184 *** (3.8997)	5.2752 *** (4.7846)
BODSIZE	0.0468 *** (3.0403)	0.0488 *** (3.2249)	0.6810 ** (2.2901)	0.0378 ** (2.5364)	0.0390 *** (2.6575)	0.3987 (1.3879)	0.0406 *** (2.6707)	0.0432 *** (2.8762)	0.5448 * (1.8602)
FSIZE	0.0035 (0.9723)	0.0047 (1.3304)	0.0287 (0.4166)	0.0091 ** (2.5019)	0.0101 *** (2.8159)	0.1710 ** (2.4262)	0.0086 ** (2.3223)	0.0093 ** (2.5447)	0.1408 ** (1.9711)
LEVERAGE	-0.1570 *** (-8.5776)	-0.0571 *** (-3.1656)	-0.2337 (-0.6605)	-0.2215 *** (-9.4320)	-0.1158 *** (-4.9849)	-1.6771 *** (-3.6757)	-0.2220 *** (-9.4543)	-0.1155 *** (-4.9661)	-1.6445 *** (-3.6126)
GROWTH	0.0189 (1.4127)	0.0086 (0.6538)	-0.1492 (-0.5758)	0.0184 (1.3933)	0.0086 (0.6628)	-0.1364 (-0.5366)	0.0174 (1.3195)	0.0073 (0.5608)	-0.1812 (-0.7134)
RESIDUALRPTLENDING	0.3271 (1.5045)	0.2489 (1.1609)	3.6436 (0.8669)				0.3817 * (1.7784)	0.2782 (1.3118)	4.4147 (1.0688)
RESIDUALRPTLIABILITIES				-0.2899 *** (-3.7621)	-0.1458 * (-1.9169)	-3.9571 *** (2.6554)	-0.2992 *** (-3.8776)	-0.1514 ** (-1.9871)	-4.0146 *** (-2.6968)
R-squared	0.1759	0.0748	0.0271	0.1996	0.0984	0.0589	0.2042	0.1023	0.0684
Adjusted R-squared	0.1670	0.0648	0.0166	0.1910	0.0887	0.0488	0.1927	0.0894	0.0549
F-statistic	19.8093	7.5054	2.5837	23.1561	10.1335	5.8145	17.8011	7.9059	5.0897
Prob Stat	0.0000	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.5. Firm Performance (Dependent Variable) and RPTS LENDING, RPTS LIABILITIES, BOCSIZE (Independent Variables)

Coefficient t-Statistic	Model 18			Model 19			Model 20		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0397 (-0.4299)	-0.1667 * (-1.8323)	-0.5048 (-0.2839)	-0.1932 ** (-2.0097)	-0.3141 *** (-3.3062)	-4.2923 ** (-2.3180)	-0.1915 ** (-1.9744)	-0.3066 *** (-3.1962)	-3.8063 ** (-2.0408)
RPTLENDING	-0.0311 (-0.3119)	-0.0697 (-0.7098)	-3.6973 * (-1.9274)				-0.0348 (-0.3554)	-0.0693 (-0.7165)	-3.6940 ** (-1.9666)
RPTLIABILITIES				0.2561 *** (4.3726)	0.2368 *** (4.0620)	5.6580 *** (4.9297)	0.2608 *** (4.4492)	0.2395 *** (4.0996)	5.6538 *** (4.9284)
BOCSIZE	0.0184 (1.1051)	0.0115 (0.7012)	0.2666 (0.8300)	-0.0036 (-0.2079)	-0.0093 (-0.5533)	-0.2585 (-0.7867)	-0.0035 (-0.2040)	-0.0086 (-0.5107)	-0.2097 (-0.6371)
FSIZE	0.0074 ** (2.0675)	0.0097 *** (2.7473)	0.0858 (1.2481)	0.0146 *** (3.8058)	0.0166 *** (4.3524)	0.2591 *** (3.4910)	0.0146 *** (3.7824)	0.0163 *** (4.2685)	0.2436 *** (3.2689)
LEVERAGE	-0.1660 *** (-9.1453)	-0.0669 *** (-3.7365)	-0.3653 (-1.0442)	-0.2343 *** (-9.8796)	-0.1301 *** (-5.5366)	-1.8779 *** (-4.0860)	-0.2355 *** (-9.9289)	-0.1307 *** (-5.5557)	-1.8717 *** (-4.0771)
GROWTH	0.0198 (1.4653)	0.0091 (0.6825)	-0.1364 (-0.5230)	0.0174 (1.3068)	0.0072 (0.5512)	-0.1615 (-0.6324)	0.0170 (1.2749)	0.0065 (0.4963)	-0.1972 (-0.7715)
RESIDUALRPTLENDING	0.2680 (1.2309)	0.1917 (0.8917)	2.8412 (0.6771)				0.3254 (1.5150)	0.2261 (1.0648)	3.6771 (0.8926)
RESIDUALRPTLIABILITIES				-0.3098 *** (-3.9184)	-0.1650 ** (-2.1104)	-4.3455 *** (-2.8495)	-0.3188 *** (-4.0237)	-0.1705 ** (-2.1749)	-4.3801 *** (-2.8704)
R-squared	0.1640	0.0584	0.0191	0.1908	0.0871	0.0566	0.1944	0.0891	0.0630
Adjusted R-squared	0.1550	0.0483	0.0086	0.1821	0.0772	0.0464	0.1828	0.0759	0.0495
F-statistic	18.2082	5.7609	1.8117	21.8955	8.8524	5.5658	16.7405	6.7826	4.6663
Prob Stat	0.0000	0.0000	0.0946	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.6. Firm Performance (Dependent Variable) and RPTS LENDING, RPTS LIABILITIES, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 21			Model 22			Model 23		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0057 (-0.0632)	-0.1236 (-1.3938)	0.0688 (0.0396)	-0.1380 (-1.4927)	-0.2508 *** (-2.7456)	-3.3350 (-1.8702)	-0.1285 (-1.3703)	-0.2344 ** (-2.5273)	-2.6475 (-1.4663)
RPTLENDING	-0.0805 (-0.7973)	-0.1187 (-1.1935)	-4.4835 ** (-2.3012)				-0.0744 (-0.7475)	-0.1092 (-1.1099)	-4.2578 ** (-2.2244)
RPTLIABILITIES				0.2299 *** (3.9980)	0.2087 *** (3.6458)	5.2006 *** (4.6134)	0.2338 *** (4.0612)	0.2097 *** (3.6552)	5.1446 *** (4.5680)
BOARDSIZE	0.0559 *** (2.7501)	0.0529 *** (2.6417)	0.8755 ** (2.2322)	0.0339 * (1.6844)	0.0310 (1.5602)	0.2648 (0.6821)	0.0368 * (1.7868)	0.0356 * (1.7502)	0.4515 (1.1395)
FSIZE	0.0026 (0.6817)	0.0045 (1.1716)	0.0090 (0.1205)	0.0097 ** (2.3699)	0.0112 *** (2.7812)	0.1883 ** (2.3946)	0.0092 ** (2.2113)	0.0104 ** (2.5252)	0.1535 * (1.9192)
LEVERAGE	-0.1591 *** (-8.7140)	-0.0600 *** (-3.3339)	-0.2557 (-0.7254)	-0.2225 *** (-9.3082)	-0.1179 *** (-4.9762)	-1.7069 *** (-3.6796)	-0.2231 *** (-9.3241)	-0.1174 *** (-4.9476)	-1.6631 *** (-3.5890)
GROWTH	0.0205 (1.5236)	0.0101 (0.7591)	-0.1250 (-0.4820)	0.0191 (1.4443)	0.0092 (0.7062)	-0.1322 (-0.5184)	0.0184 (1.3907)	0.0083 (0.6313)	-0.1689 (-0.6625)
RESIDUALRPTLENDING	0.3151 (1.4463)	0.2366 (1.0998)	3.5905 (0.8537)				0.3636 * (1.6872)	0.2607 (1.2232)	4.2194 (1.0188)
RESIDUALRPTLIABILITIES				-0.2830 *** (-3.6198)	-0.1385 * (-1.7914)	-3.8853 ** (-2.5724)	-0.2921 *** (-3.7274)	-0.1429 * (-1.8432)	-3.8889 ** (-2.5748)
R-squared	0.1733	0.0692	0.0266	0.1947	0.0908	0.0562	0.1988	0.0939	0.0646
Adjusted R-squared	0.1644	0.0592	0.0161	0.1861	0.0811	0.0461	0.1873	0.0808	0.0511
F-statistic	19.4614	6.8998	2.5375	22.4492	9.2764	5.5296	17.2166	7.1897	4.7914
Prob Stat	0.0000	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.7. Firm Performance (Dependent Variable) and RPTS SALES, RPTS PURCHASES, INDBOC (Independent Variables)

Coefficient t-Statistic	Model 24			Model 25			Model 26		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0786 (-0.9255)	-0.1979 ** (-2.3450)	-1.2365 (-0.7659)	-0.0925 (-1.0838)	-0.1909 ** (-2.2468)	-1.4323 (-0.8884)	-0.0963 (-1.1407)	-0.1953 ** (-2.3064)	-1.4340 (-0.8877)
RPTSALES	0.0539 ** (2.3660)	0.0563 ** (2.4904)	0.1217 (0.2812)				0.0458 ** (2.0152)	0.0570 ** (2.4992)	0.0277 (0.0637)
RPTPURCHASES				0.0571 *** (3.4086)	-0.0033 (-0.1954)	0.6118 * (1.9323)	(0.0544) *** (3.2589)	-0.0079 (-0.4747)	0.6084 * (1.9043)
INDBOC	0.1253 *** (2.6503)	0.1171 ** (2.4936)	5.5785 *** (6.2112)	0.1267 *** (2.6813)	0.1028 ** (2.1851)	5.7026 *** (6.3872)	0.1370 *** (2.9130)	0.1152 ** (2.4449)	5.7084 *** (6.3471)
FSIZE	0.0076 ** (2.5488)	0.0093 *** (3.1369)	0.0420 (0.7378)	0.0081 *** (2.7061)	0.0096 *** (3.2203)	0.0447 (0.7896)	0.0079 *** (2.6465)	0.0093 *** (3.1220)	0.0446 (0.7846)
LEVERAGE	-0.1615 *** (-8.9293)	-0.0616 *** (-3.4295)	-0.4327 (-1.2587)	-0.1671 *** (-9.3345)	-0.0689 *** (-3.8631)	-0.4347 (-1.2851)	-0.1614 *** (-8.9912)	-0.0617 *** (-3.4307)	-0.4313 (-1.2564)
GROWTH	0.0211 (1.5944)	0.0113 (0.8548)	-0.0754 (-0.2992)	0.0218 (1.6372)	0.0097 (0.7308)	-0.0569 (-0.2263)	0.0229 * (1.7369)	0.0110 (0.8331)	-0.0563 (-0.2234)
RESIDUALRPTSALES	0.1176 ** (1.9698)	-0.0371 (-0.6252)	-0.2840 (-0.2502)				0.1261 ** (2.1187)	-0.0348 (-0.5837)	-0.1637 (-0.1438)
RESIDUALRPTPURCHASES				-0.0242 (-0.5562)	-0.0277 (-0.6409)	-0.5134 (-0.6254)	-0.0269 (-0.6222)	-0.0221 (-0.5100)	-0.5030 (-0.6091)
R-squared	0.1903	0.0749	0.0760	0.1861	0.0655	0.0821	0.2060	0.0762	0.0821
Adjusted R-squared	0.1816	0.0649	0.0661	0.1773	0.0554	0.0722	0.1946	0.0628	0.0689
F-statistic	21.8219	7.5152	7.6400	21.2288	6.5025	8.2978	18.0036	5.7196	6.2037
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.8. Firm Performance (Dependent Variable) and RPTS SALES, RPTS PURCHASES, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 27			Model 28			Model 29		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0541 (-0.6186)	-0.2099 ** (-2.4239)	-1.4185 (-0.8288)	-0.0681 (-0.7761)	-0.2013 ** (-2.3105)	-1.6008 (-0.9347)	-0.0724 (-0.8322)	-0.2063 ** (-2.3746)	-1.5785 (-0.9201)
RPTSALES	0.0490 ** (2.1454)	0.0519 ** (2.2929)	-0.1554 (-0.3475)				0.0410 * (1.7949)	0.0529 ** (2.3170)	-0.2289 (-0.5081)
RPTPURCHASES				0.0545 *** (3.2373)	-0.0055 (-0.3272)	0.4374 (1.3323)	0.0520 *** (3.0945)	-0.0100 (-0.5972)	0.4553 (1.3741)
BOCCOM	-0.0326 * (-1.6496)	-0.0107 (-0.5477)	0.0343 (0.0887)	-0.0339 * (-1.7113)	-0.0078 (-0.3956)	-0.0033 (-0.0086)	-0.0358 * (-1.8199)	-0.0101 (-0.5140)	0.0068 (0.0176)
FSIZE	0.0091 *** (3.0529)	0.0116 *** (3.9141)	0.1285 ** (2.2006)	0.0096 *** (3.2148)	0.0115 *** (3.8860)	0.1323 ** (2.2668)	0.0096 *** (3.2295)	0.0115 *** (3.8745)	0.1326 ** (2.2682)
LEVERAGE	-0.1644 *** (-8.9807)	-0.0609 *** (-3.3567)	-0.4007 (-1.1175)	-0.1694 *** (-9.3561)	-0.0678 *** (-3.7690)	-0.3698 (-1.0464)	-0.1641 *** (-9.0314)	-0.0610 *** (-3.3599)	-0.3991 (-1.1130)
GROWTH	0.0202 (1.5119)	0.0106 (0.8029)	-0.1176 (-0.4500)	0.0208 (1.5585)	0.0091 (0.6859)	-0.0983 (-0.3766)	0.0218 (1.6438)	0.0103 (0.7769)	-0.1034 (-0.3956)
RESIDUALRPTSALES	0.1164 * (1.9492)	-0.0376 (-0.6349)	-0.1952 (-0.1669)				0.1247 ** (2.0925)	-0.0355 (-0.5959)	-0.1012 (-0.0861)
RESIDUALRPTPURCHASES				-0.0234 (-0.5365)	-0.0270 (-0.6215)	-0.3550 (-0.4163)	-0.0263 (-0.6051)	-0.0215 (-0.4944)	-0.3668 (-0.4277)
R-squared	0.1834	0.0667	0.0121	0.1798	0.0590	0.0149	0.1978	0.0683	0.0155
Adjusted R-squared	0.1746	0.0566	0.0014	0.1709	0.0488	0.0042	0.1861	0.0548	0.0013
F-statistic	20.7422	6.5984	1.1340	20.2413	5.7913	1.3971	17.0108	5.0573	1.0884
Prob Stat	0.0000	0.0000	0.3410	0.0000	0.0000	0.2136	0.0000	0.0000	0.3695
Number of Observations.	564	564	564	564	564	564	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.9. Firm Performance (Dependent Variable) and RPTS LENDING, RPTS LIABILITIES, INDBOC (Independent Variables)

Coefficient t-Statistic	Model 30			Model 31			Model 32		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0740 (-0.8547)	-0.1884 ** (-2.2054)	-1.0203 (-0.6281)	-0.1790 ** (-2.0335)	-0.2886 *** (-3.3200)	-3.4524 ** (-2.0987)	-0.1802 ** (-2.0364)	-0.2853 *** (-3.2587)	-3.2382 * (-1.9555)
RPTLENDING	0.0093 (0.0931)	-0.0347 (-0.3521)	-1.9365 (-1.0324)				-0.0054 (-0.0544)	-0.0441 (-0.4533)	-2.1608 (1.1754)
RPTLIABILITIES				0.2448 *** (4.3594)	0.2232 *** (3.9921)	5.1503 *** (4.8188)	0.2491 *** (4.4301)	0.2262 *** (4.0374)	5.1804 *** (4.8379)
INDBOC	0.1131 ** (2.3530)	0.1011 ** (2.1328)	5.4093 *** (5.9990)	0.1061 ** (2.2671)	0.0979 ** (2.1188)	5.4159 *** (6.2027)	0.1056 ** (2.2314)	0.0946 ** (2.0224)	5.2586 *** (5.9495)
FSIZE	0.0079 *** (2.6173)	0.0096 *** (3.2029)	0.0397 (0.6980)	0.0124 *** (3.9386)	0.0137 *** (4.4079)	0.1373 ** (2.3280)	0.0125 *** (3.9591)	0.0137 *** (4.3965)	0.1346 ** (2.2786)
LEVERAGE	-0.1684 *** (-9.3194)	-0.0687 *** (-3.8566)	-0.4452 (-1.3134)	-0.2325 *** (-10.0764)	-0.1272 *** (-5.5666)	-1.7956 *** (-4.1377)	-0.2336 *** (-10.1233)	-0.1279 *** (-5.5907)	-1.8002 *** (-4.1439)
GROWTH	0.0198 (1.4750)	0.0094 (0.7092)	-0.0998 (-0.3953)	0.0183 (1.3885)	0.0085 (0.6527)	-0.1083 (-0.4396)	0.0182 (1.3782)	0.0080 (0.6117)	-0.1321 (-0.5342)
RESIDUALRPTLENDING	0.2420 (1.1136)	0.1649 (0.7686)	1.3079 (0.3208)				0.3037 (1.4162)	0.2022 (0.9536)	2.2061 (0.5509)
RESIDUALRPTLIABILITIES				-0.2926 *** (-3.7994)	-0.1494 * (-1.9634)	-3.7716 *** (-2.6164)	-0.3006 *** (-3.8939)	-0.1549 ** (-2.0293)	-3.8216 *** (-2.6435)
R-squared	0.1707	0.0654	0.0777	0.1967	0.0936	0.1159	0.2003	0.0952	0.1181
Adjusted R-squared	0.1618	0.0553	0.0677	0.1881	0.0839	0.1064	0.1888	0.0821	0.1054
F-statistic	19.1075	6.4936	7.8191	22.7381	9.5909	12.1757	17.3780	7.2967	9.2898
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B.10. Firm Performance (Dependent Variable) and RPTS LENDING, RPTS LIABILITIES, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 33			Model 34			Model 35		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.0471 (-0.5302)	-0.1992 ** (-2.2777)	-1.0772 (-0.6278)	-0.1505 * (-1.6797)	-0.2979 *** (-3.3709)	-3.5956 ** (-2.0781)	-0.1504 * (-1.6706)	-0.2938 *** (-3.3000)	-3.2309 * (-1.8598)
RPTLENDING	-0.0080 (-0.0807)	-0.0415 (-0.4231)	-3.6732 * (-1.9108)				-0.0106 (-0.1080)	-0.0432 (-0.4482)	-3.7078 ** (-1.9701)
RPTLIABILITIES				0.2576 *** (4.5654)	0.2374 *** (4.2342)	5.4174 *** (4.8783)	0.2602 *** (4.6105)	0.2378 *** (4.2317)	5.4166 *** (4.8842)
BOCCOM	-0.0299 (-1.4870)	-0.0070 (-0.3511)	0.1317 (0.3385)	-0.0314 (-1.6041)	-0.0093 (-0.4820)	0.0002 (0.0005)	-0.0311 (-1.5742)	-0.0081 (-0.4131)	0.1063 (0.2789)
FSIZE	0.0091 *** (3.0111)	0.0115 *** (3.8522)	0.1184 ** (2.0266)	0.0135 *** (4.3373)	0.0156 *** (5.0868)	0.2201 *** (3.6624)	0.0135 *** (4.3285)	0.0155 *** (5.0240)	0.2101 *** (3.4880)
LEVERAGE	-0.1707 *** (-9.3547)	-0.0675 *** (-3.7555)	-0.3728 (-1.0568)	-0.2387 *** (-10.2417)	-0.1302 *** (-5.6497)	-1.8090 *** (-3.9911)	-0.2393 *** (-10.2727)	-0.1302 *** (-5.6394)	-1.8010 *** (-3.9795)
GROWTH	0.0188 (1.3947)	0.0089 (0.6650)	-0.1530 (-0.5862)	0.0174 (1.3134)	0.0079 (0.6036)	-0.1460 (-0.5717)	0.0173 (1.3003)	0.0074 (0.5652)	-0.1857 (-0.7263)
RESIDUALRPTLENDING	0.2952 (1.3105)	0.0440 (0.1981)	2.9533 (0.6781)				0.3302 (1.4893)	0.0727 (0.3316)	3.5788 (0.8379)
RESIDUALRPTLIABILITIES				-0.3065 *** (-3.9506)	-0.1824 ** (-2.3823)	-4.0666 *** (-2.7092)	-0.3113 *** (-4.0115)	-0.1833 ** (-2.3879)	-4.0860 *** (-2.7250)
R-squared	0.1665	0.0580	0.0183	0.1949	0.0890	0.0554	0.1987	0.0894	0.0619
Adjusted R-squared	0.1574	0.0478	0.0076	0.1862	0.0792	0.0451	0.1871	0.0762	0.0483
F-statistic	18.4392	5.6880	1.7174	22.3559	9.0243	5.4110	17.1073	6.7756	4.5558
Prob Stat	0.0000	0.0000	0.1147	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	561	561	561	561	561	561	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.1. Firm Performance (Dependent Variable) and RPTS PERSON, RPTS ENTITY, BODSIZE (Independent Variables)

Coefficient t-Statistic	Model 36			Model 37			Model 38		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.1660 *	-0.2692 ***	-6.4288 ***	-0.0276	-0.1224	-0.4884	-0.2002 **	-0.2812 ***	-6.5236 ***
	(-1.7053)	(-2.8044)	(-3.5413)	(-0.3073)	(-1.3656)	(-0.2765)	(-2.0754)	(-2.9123)	(-3.5692)
RPTPERSON	0.5540 ***	0.5086 ***	19.3592 ***				0.5526 ***	0.5077 ***	19.3353 ***
	(4.3902)	(4.1110)	(8.1074)				(4.4399)	(4.1017)	(8.0839)
RPTENTITY				0.0370 ***	0.0132	0.1343	0.0364 ***	0.0128	0.1071
				(3.3951)	(1.2162)	(0.6271)	(3.3962)	(1.1971)	(0.5299)
BODSIZE	0.0232	0.0256 *	-0.1893	0.0368 **	0.0421 ***	0.5091 *	0.0163	0.0231	-0.2091
	(1.4940)	(1.6694)	(-0.6544)	(2.4566)	(2.8123)	(1.7270)	(1.0522)	(1.4965)	(-0.7154)
FSIZE	0.0127 ***	0.0134 ***	0.3594 ***	0.0053	0.0060 *	0.0634	0.0138 ***	0.0138 ***	0.3626 ***
	(3.1946)	(3.4426)	(4.8597)	(1.5201)	(1.7268)	(0.9294)	(3.5288)	(3.5328)	(4.8771)
LEVERAGE	-0.2465 ***	-0.1396 ***	-3.3710 ***	-0.1570 ***	-0.0578 ***	-0.2655	-0.2456 ***	-0.1392 ***	-3.3653 ***
	(-9.1027)	(-5.2410)	(-6.6295)	(-8.7001)	(-3.2088)	(-0.7479)	(-9.1969)	(-5.2244)	(-6.6070)
GROWTH	0.0190	0.0091	-0.1339	0.0221 *	0.0107	-0.0961	0.0212	0.0099	-0.1273
	(1.4411)	(0.7042)	(-0.5474)	(1.6725)	(0.8147)	(-0.3700)	(1.6326)	(0.7641)	(-0.5187)
RESIDUALRPTPERSON	-0.6162 ***	-0.5098 ***	-17.0179 ***				-0.6149 ***	-0.5088 ***	-16.9903 ***
	(-4.4047)	(-3.7111)	(-6.4540)				(-4.4556)	(-3.7019)	(-6.4325)
RESIDUALRPTENTITY				0.0242	-0.0162	-0.2842	0.0274	-0.0146	-0.1380
				(0.8694)	(-0.5835)	(-0.5199)	(0.9996)	(-0.5306)	(-0.2667)
R-squared	0.2016	0.0986	0.1274	0.1973	0.0738	0.0185	0.2263	0.1010	0.1278
Adjusted R-squared	0.1930	0.0889	0.1180	0.1887	0.0638	0.0079	0.2151	0.0880	0.1152
F-statistic	23.4410	10.1571	13.5590	22.8184	7.3919	1.7459	20.2893	7.7946	10.1669
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.1082	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.2. Firm Performance (Dependent Variable) and RPTS PERSON, RPTS ENTITY, BOCSIZE (Independent Variables)

Coefficient t-Statistic	Model 39			Model 40			Model 41		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.2608 ***	-0.3770 ***	-8.0164 ***	-0.0781	-0.1904 **	-1.1380	-0.2928 ***	-0.3902 ***	-8.1152 ***
	(-2.6374)	(-3.8627)	(-4.3688)	(-0.8637)	(-2.1055)	(-0.6413)	(-2.9962)	(-3.9844)	(-4.3997)
RPTPERSON	0.6585 ***	0.6101 ***	21.3171 ***				0.6540 ***	0.6081 ***	21.2657 ***
	(5.1131)	(4.8428)	(8.7557)				(5.1565)	(4.8280)	(8.7222)
RPTENTITY				0.0400 ***	0.0170	0.1735	0.0389 ***	0.0162	0.1346
				(3.6688)	(1.5568)	(0.8120)	(3.6548)	(1.5135)	(0.6730)
BOCSIZE	-0.0140	-0.0190	-0.8180 **	0.0119	0.0080	0.1917	-0.0197	-0.0214	-0.8360 **
	(-0.8031)	(-1.1071)	(-2.5348)	(0.7263)	(0.4886)	(0.5940)	(-1.1433)	(-1.2397)	(-2.5766)
FSIZE	0.0184 ***	0.0200 ***	0.4528 ***	0.0086 **	0.0104 ***	0.1058	0.0193 ***	0.0204 ***	0.4555 ***
	(4.5201)	(4.9968)	(5.9940)	(2.4462)	(2.9716)	(1.5400)	(4.8212)	(5.0871)	(6.0099)
LEVERAGE	-0.2681 ***	-0.1615 ***	-3.6726 ***	-0.1641 ***	-0.0661 ***	-0.3617	-0.2655 ***	-0.1604 ***	-3.6579 ***
	(-10.0393)	(-6.1531)	(-7.3481)	(-9.1736)	(-3.6977)	(-1.0306)	(-10.0893)	(-6.1093)	(-7.3049)
GROWTH	0.0176	0.0074	-0.1824	0.0224 *	0.0107	-0.0909	0.0198	0.0084	-0.1746
	(1.3328)	(0.5698)	(-0.7475)	(1.6809)	(0.8064)	(-0.3481)	(1.5207)	(0.6392)	(-0.7139)
RESIDUALRPTPERSON	-0.7235 ***	-0.6097 ***	-18.9916 ***				-0.7191 ***	-0.6077 ***	-18.9352 ***
	(-5.0860)	(-4.3709)	(-7.0968)				(-5.1326)	(-4.3574)	(-7.0652)
RESIDUALRPTENTITY				0.0210	-0.0199	-0.3243	0.0249	-0.0177	-0.1711
				(0.7517)	(-0.7123)	(-0.5922)	(0.9101)	(-0.6454)	(-0.3329)
R-squared	0.2008	0.0950	0.1379	0.1894	0.0610	0.0138	0.2280	0.0988	0.1385
Adjusted R-squared	0.1921	0.0852	0.1287	0.1806	0.0509	0.0032	0.2168	0.0859	0.1261
F-statistic	23.3185	9.7446	14.8544	21.6847	6.0306	1.3022	20.4859	7.6094	11.1504
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.2542	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.3. Firm Performance (Dependent Variable) and RPTS PERSON, RPTS ENTITY, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 42			Model 43			Model 44		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.3079 ***	-6.9605 ***	-0.2261 **	-0.0518	-0.1544 *	-0.7418	-0.2339 **	-0.3215 ***	-7.1002 ***
	(-3.2326)	(-3.8719)	(-2.5363)	(-0.5885)	(-1.7555)	(-0.4292)	(-2.4452)	(-3.3545)	(-3.9209)
RPTPERSON	0.5206 ***	19.8789 ***	0.6333 ***				0.5699 ***	0.5225 ***	19.9076 ***
	(4.0938)	(8.1106)	(5.1437)				(4.4590)	(4.1062)	(8.1085)
RPTENTITY				0.0371 ***	0.0136	0.1293	0.0376 ***	0.0143	0.1437
				(3.3881)	(1.2472)	(0.6015)	(3.4997)	(1.3293)	(0.7084)
BOARDSIZE	0.0118	-0.6927 *	0.1174 **	0.0417 **	0.0439 **	0.6461 *	0.0021	0.0075	-0.7364 *
	(0.5558)	(-1.7290)	(2.5252)	(2.1000)	(2.2125)	(1.6570)	(0.0961)	(0.3495)	(-1.8144)
FSIZE	0.0154 ***	0.4249 ***	0.0147 ***	0.0049	0.0060	0.0497	0.0158 ***	0.0160 ***	0.4318 ***
	(3.4758)	(5.0719)	(4.5297)	(1.2957)	(1.5901)	(0.6693)	(3.5582)	(3.6007)	(5.1129)
LEVERAGE	-0.1452 ***	(-3.5073) ***	-0.2649 ***	-0.1590 ***	-0.0606 ***	-0.2835	-0.2514 ***	-0.1452 ***	-3.5095 ***
	(-5.3371)	(-6.7621)	(-10.2786)	(-8.8301)	(-3.3662)	(-0.8012)	(-9.2248)	(-5.3372)	(-6.7561)
GROWTH	0.0092	-0.1594	0.0192	0.0232 *	0.0118	-0.0790	0.0211	0.0099	-0.1519
	(0.7022)	(-0.6501)	(1.4666)	(1.7481)	(0.8931)	(-0.3036)	(1.6171)	(0.7594)	(-0.6179)
RESIDUALRPTPERSON	-0.5227 ***	-17.5235 ***	-0.6903 ***				-0.6351 ***	-0.5241 ***	-17.5490 ***
	(-3.7149)	(-6.4978)	(-5.0438)				(-4.4982)	(-3.7226)	(-6.4961)
RESIDUALRPTENTITY				0.0240	-0.0166	-0.2797	0.0269	-0.0153	-0.1478
				(0.8606)	(-0.5974)	(-0.5113)	(0.9794)	(-0.5568)	(-0.2855)
R-squared	0.0934	0.1272	0.2071	0.1950	0.0688	0.0180	0.2244	0.0962	0.1280
Adjusted R-squared	0.0837	0.1178	0.1986	0.1863	0.0586	0.0075	0.2132	0.0832	0.1154
F-statistic	9.5686	13.5293	24.2492	22.4833	6.8574	1.7062	20.0685	7.3883	10.1844
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.1173	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.4. Firm Performance (Dependent Variable) and RPTS PERSON, RPTS ENTITY, INDBOC (Independent Variables)

Coefficient t-Statistic	Model 45			Model 46			Model 47		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.2244 **	-0.3320 ***	-6.0488 ***	-0.0985	-0.2039 **	-1.4278	-0.2448 ***	-0.3406 ***	-6.1598 ***
	(-2.5363)	(-3.7689)	(-3.7801)	(-1.1643)	(-2.4049)	(-0.8847)	(-2.7915)	(-3.8657)	(-3.8436)
RPTPERSON	0.6333 ***	0.5787 ***	19.9549 ***				0.6116 ***	0.5710 ***	19.7917 ***
	(5.1437)	(4.8057)	(8.8678)				(5.0505)	(4.7423)	(8.7872)
RPTENTITY				0.0447 ***	0.0208 *	0.3581 *	0.0420 ***	0.0185 *	0.2641
				(4.1175)	(1.9136)	(1.7294)	(3.9540)	(1.7324)	(1.3631)
INDBOC	0.1174 **	0.1081 **	5.7049 ***	0.1387 ***	0.1159 ***	5.7603 ***	0.1419 ***	0.1190 **	5.8591 ***
	(2.5252)	(2.3528)	(6.8561)	(2.9473)	(2.4563)	(6.4134)	(3.0805)	(2.5676)	(6.9758)
FSIZE	0.0147 ***	0.0158 ***	0.2552 ***	0.0079 ***	0.0096 ***	0.0425	0.0144 ***	0.0157 ***	0.2534 ***
	(4.5297)	(4.9413)	(4.3875)	(2.6605)	(3.2311)	(0.7497)	(4.5330)	(4.9178)	(4.3547)
LEVERAGE	-0.2649 ***	-0.1570 ***	-3.4892 ***	-0.1661 ***	-0.0677 ***	-0.4298	-0.2594 ***	-0.1549 ***	-3.4508 ***
	(-10.2786)	(-6.1951)	(-7.4785)	(-9.3618)	(-3.8084)	(-1.2695)	(-10.2305)	(-6.1089)	(-7.3847)
GROWTH	0.0192	0.0093	-0.0948	0.0228 *	0.0112	-0.0539	0.0221 *	0.0106	-0.0764
	(1.4666)	(0.7189)	(-0.4036)	(1.7318)	(0.8499)	(-0.2142)	(1.7166)	(0.8175)	(-0.3248)
RESIDUALRPTPERSON	-0.6903 ***	-0.5741 ***	-17.5384 ***				-0.6685 ***	-0.5667 ***	-17.3732 ***
	(-5.0438)	(-4.2769)	(-7.0445)				(-4.9672)	(-4.2236)	(-6.9724)
RESIDUALRPTENTITY				0.0187	-0.0221	-0.4631	0.0229	-0.0195	-0.2780
				(0.6718)	(-0.7949)	(-0.8737)	(0.8389)	(-0.7137)	(-0.5596)
R-squared	0.2071	0.1016	0.1967	0.2013	0.0705	0.0809	0.2376	0.1067	0.1993
Adjusted R-squared	0.1986	0.0920	0.1880	0.1927	0.0605	0.0710	0.2266	0.0938	0.1878
F-statistic	24.2492	10.5035	22.7319	23.3927	7.0412	8.1691	21.6190	8.2863	17.2673
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C.5. Firm Performance (Dependent Variable) and RPTS PERSON, RPTS ENTITY, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 48			Model 49			Model 50		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C	-0.2025 **	-0.3401 ***	-6.3419 ***	-0.0722	-0.2144 **	-1.5437	-0.2203 **	-0.3476 ***	-6.3554 ***
	(-2.2205)	(-3.7765)	(-3.7408)	(-0.8297)	(-2.4670)	(-0.9006)	(-2.4533)	(-3.8578)	(-3.7372)
RPTPERSON	0.6468 ***	0.5724 ***	20.5139 ***				0.6275 ***	0.5637 ***	20.3877 ***
	(5.2154)	(4.7145)	(8.7118)				(5.1340)	(4.6425)	(8.6383)
RPTENTITY				0.0422 ***	0.0193 *	0.1835	0.0390 ***	0.0166	0.0760
				(3.8873)	(1.7783)	(0.8568)	(3.6681)	(1.5581)	(0.3781)
BOCCOM	-0.0281	-0.0064	0.0911	-0.0383 *	-0.0119	-0.0088	-0.0357 *	-0.0096	0.0760
	(-1.4441)	(-0.3297)	(0.2521)	(-1.9441)	(-0.6030)	(-0.0226)	(-1.8530)	(-0.4953)	(0.2087)
FSIZE	0.0160 ***	0.0177 ***	0.3466 ***	0.0096 ***	0.0118 ***	0.1304 **	0.0162 ***	0.0178 ***	0.3461 ***
	(4.9632)	(5.5526)	(5.7720)	(3.2350)	(3.9846)	(2.2328)	(5.1139)	(5.5844)	(5.7527)
LEVERAGE	-0.2695 ***	-0.1550 ***	-3.5121 ***	-0.1685 ***	-0.0666 ***	-0.3709	-0.2645 ***	-0.1528 ***	-3.4888 ***
	(-10.3610)	(-6.0587)	(-7.1898)	(-9.3890)	(-3.7134)	(-1.0485)	(-10.3155)	(-5.9682)	(-7.1191)
GROWTH	0.0183	0.0087	-0.1332	0.0218	0.0106	-0.1012	0.0210	0.0099	-0.1280
	(1.3911)	(0.6723)	(-0.5460)	(1.6426)	(0.8001)	(-0.3874)	(1.6167)	(0.7588)	(-0.5226)
RESIDUALRPTPERSON	-0.7071 ***	-0.5686 ***	-18.2298 ***				-0.6887 ***	-0.5602 ***	-18.096 ***
	(-5.1338)	(-4.2063)	(-7.0074)				(-5.0737)	(-4.1446)	(-6.9396)
RESIDUALRPTENTITY				0.0219	-0.0311	-0.3252	0.0278	-0.0275	-0.1165
				(0.7787)	(-1.1054)	(-0.5864)	(1.0090)	(-0.9923)	(-0.2236)
R-squared	0.2040	0.0941	0.1367	0.1943	0.0634	0.0132	0.2324	0.0986	0.1364
Adjusted R-squared	0.1953	0.0843	0.1273	0.1855	0.0533	0.0025	0.2213	0.0856	0.1238
F-statistic	23.6567	9.5884	14.6146	22.2630	6.2521	1.2326	20.8904	7.5500	10.8938
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.2877	0.0000	0.0000	0.0000
Number of Observations.	561	561	561	561	561	561	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.1. Firm Performance (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTS ENTITY ASSOCIATES, RPTS ENTITY OTHER AFFILIATES, BODSIZE (Independent Variables)

Coefficient t-Statistic	Model 51			Model 52			Model 53			Model 54		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(8)	(9)	(10)
C	-0.0453 (-0.4860)	-0.1696* (-1.8520)	-0.9991 (-0.5513)	-0.0216 (-0.2437)	-0.1598 * (-1.8146)	-0.7520 (-0.4266)	-0.0095 (-0.1065)	-0.1170 (-1.3142)	-0.4154 (-0.2365)	-0.0752 (-0.8337)	-0.2124 ** (-2.3473)	-1.3327 (-0.7313)
RPTENTITY_SH	0.0624** (2.2239)	0.0705** (2.5567)	0.7522 (1.3793)							0.0410 (1.4893)	0.0538 * (1.9510)	0.6339 (1.1405)
RPTENTITY_ASSC				-0.1234 *** (-2.7191)	-0.2106 *** (-4.6699)	-1.6503 * (-1.8280)				-0.1295 *** (-2.8804)	-0.2095 *** (-4.6406)	-1.6212 * (-1.7827)
RPTENTITY_OAFF							0.0503 *** (3.8162)	0.0211 (1.6109)	0.1613 (0.6230)	0.0506 *** (3.8830)	0.0208 (1.5904)	0.1436 (0.5451)
BODSIZE	0.0356** (2.3063)	0.0352** (2.3214)	0.4350 (1.4479)	0.0499 *** (3.3686)	0.0548 *** (3.7266)	0.6147 ** (2.0883)	0.0434 *** (2.9197)	0.0444 *** (2.9991)	0.5331 * (1.8266)	0.0442 *** (2.9297)	0.0473 *** (3.1292)	0.5274 * (1.7307)
FSIZE	0.0061* (1.6891)	0.0078** (2.2146)	0.0836 (1.1921)	0.0048 (1.3993)	0.0068 ** (2.0011)	0.0687 (1.0123)	0.0044 (1.2643)	0.0057 * (1.6492)	0.0600 (0.8838)	0.0065 * (1.8622)	0.0087 ** (2.4859)	0.0902 (1.2836)
LEVERAGE	-0.1506*** (-8.1290)	-0.0500*** (-2.7476)	-0.1820 (-0.5055)	-0.1528 *** (-8.5295)	-0.0497 *** (-2.7943)	-0.2023 (-0.5684)	-0.1606 *** (-8.8795)	-0.0593 *** (-3.2894)	-0.2771 (-0.7798)	-0.1508 *** (-8.4094)	-0.0448 ** (-2.4884)	-0.1393 (-0.3846)
GROWTH	0.0212 (1.5859)	0.0115 (0.8740)	-0.0880 (-0.3394)	0.0194 (1.4883)	0.0092 (0.7122)	-0.1101 (-0.4252)	0.0216 (1.6385)	0.0107 (0.8128)	-0.0985 (-0.3795)	0.0221 * (1.7212)	0.0111 (0.8646)	-0.0909 (-0.3500)
RESIDUALRPTENTITYSH	-0.0201 (-0.2303)	0.0051 (0.0596)	-0.6572 (-0.3867)							-0.0137 (-0.1616)	0.0243 (0.2861)	-0.5574 (-0.3258)
RESIDUALRPTENTITYASSC				0.7055 *** (5.6176)	0.1171 (0.9442)	2.2526 (0.9074)				0.7150 *** (5.7663)	0.1234 (0.9964)	2.3369 (0.9371)
RESIDUALRPTENTITYOAFF							-0.0135 (-0.4280)	-0.0307 (-0.9760)	-0.3925 (-0.6332)	-0.0203 (-0.6552)	-0.0318 (-1.0260)	-0.3952 (-0.6325)
R-squared	0.1801	0.0834	0.0210	0.2176	0.1073	0.0236	0.1959	0.0758	0.0186	0.2464	0.1212	0.0273
Adjusted R-squared	0.1713	0.0736	0.0104	0.2091	0.0977	0.0131	0.1872	0.0658	0.0080	0.2328	0.1053	0.0097
F-statistic	20.3942	8.4522	1.9875	25.8113	11.1552	2.2426	22.6100	7.6097	1.7586	18.0851	7.6268	1.5524
Prob Stat	0.0000	0.0000	0.0656	0.0000	0.0000	0.0379	0.0000	0.0000	0.1055	0.0000	0.0000	0.1175
Number of Observations.	564	564	564	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.2. Firm Performance (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTS ENTITY ASSOCIATES, RPTS ENTITY OTHER AFFILIATES, BOCSIZE (Independent Variables)

Coefficient t-Statistic	Model 55			Model 56			Model 57			Model 58		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(8)	(9)	(10)
C	-0.0943 (-1.0188)	-0.2321 ** (-2.5496)	-1.5997 (-0.8908)	-0.0638 (-0.7140)	-0.2103 ** (-2.3659)	-1.2598 (-0.7126)	-0.0622 (-0.6885)	-0.1837 ** (-2.0394)	-1.0482 (-0.5930)	-0.1210 (-1.3510)	-0.2651 *** (-2.9479)	-1.8537 (-1.0282)
RPTENTITY_SH	0.0766 *** (2.7979)	0.0852 *** (3.1645)	0.9249 * (1.7418)							0.0580 ** (2.1618)	0.0727 *** (2.6991)	0.8388 (1.5527)
RPTENTITY_ASSC				-0.1208 ** (-2.5812)	-0.2070 *** (-4.4459)	-1.6279 * (-1.7583)				-0.1261 *** (-2.7301)	-0.2054 *** (-4.4269)	-1.5934 * (-1.7131)
RPTENTITY_OAFF							0.0504 *** (3.7980)	0.0214 (1.6171)	0.1625 (0.6259)	0.0491 *** (3.7430)	0.0192 (1.4569)	0.1247 (0.4727)
BOCSIZE	0.0153 (0.9211)	0.0075 (0.4630)	0.1847 (0.5752)	0.0290 * (1.7281)	0.0293 * (1.7622)	0.3654 (1.1033)	0.0167 (1.0201)	0.0101 (0.6154)	0.2140 (0.6660)	0.0261 (1.5803)	0.0261 (1.5743)	0.3288 (0.9897)
FSIZE	0.0090 ** (2.5361)	0.0117 *** (3.3277)	0.1197 * (1.7319)	0.0077 ** (2.2200)	0.0102 *** (2.9809)	0.1034 (1.5139)	0.0079 ** (2.2569)	0.0101 *** (2.9003)	0.1024 (1.4958)	0.0092 *** (2.6837)	0.0118 *** (3.4326)	0.1212 * (1.7515)
LEVERAGE	-0.1553 *** (-8.4148)	-0.0550 *** (-3.0320)	-0.2403 (-0.6715)	-0.1620 *** (-9.1105)	-0.0599 *** (-3.3900)	-0.3146 (-0.8952)	-0.1689 *** (-9.4153)	-0.0682 *** (-3.8120)	-0.3795 (-1.0808)	-0.1564 *** (-8.7367)	-0.0508 *** (-2.8280)	-0.2049 (-0.5688)
GROWTH	0.0218 (1.6235)	0.0117 (0.8822)	-0.0803 (-0.3082)	0.0203 (1.5411)	0.0100 (0.7679)	-0.0985 (-0.3785)	0.0219 (1.6429)	0.0105 (0.7924)	-0.0948 (-0.3634)	0.0233 * (1.7978)	0.0123 (0.9469)	-0.0757 (-0.2904)
RESIDUALRPTENTITYSH	-0.0354 (-0.4042)	-0.0097 (-0.1132)	-0.8333 (-0.4908)							-0.0281 (-0.3304)	0.0045 (0.0531)	-0.7575 (0.4432)
RESIDUALRPTENTITYASSC				0.6943 *** (5.4879)	0.1166 (0.9309)	2.2099 (0.8871)				0.7024 *** (5.6362)	0.1210 (0.9704)	2.2634 (0.9058)
RESIDUALRPTENTITYOAFF							-0.0136 (-0.4274)	-0.0310 (-0.9792)	-0.3934 (-0.6331)	-0.0181 (-0.5819)	-0.0299 (-0.9564)	-0.3685 (-0.5889)
R-squared	0.1736	0.0749	0.0179	0.2051	0.0902	0.0181	0.1851	0.0615	0.0135	0.2372	0.1097	0.0237
Adjusted R-squared	0.1647	0.0650	0.0073	0.1965	0.0804	0.0075	0.1763	0.0514	0.0029	0.2234	0.0936	0.0060
F-statistic	19.4962	7.5203	1.6884	23.9482	9.1998	1.7083	21.0821	6.0819	1.2702	17.1968	6.8119	1.3422
Prob Stat	0.0000	0.0000	0.1215	0.0000	0.0000	0.1168	0.0000	0.0000	0.2692	0.0000	0.0000	0.2044
Number of Observations.	564	564	564	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.3. Firm Performance (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTS ENTITY ASSOCIATES, RPTS ENTITY OTHER AFFILIATES, BOARDSIZE (Independent Variables)

Coefficient t-Statistic	Model 59			Model 60			Model 61			Model 62		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(8)	(9)	(10)
C	-0.0685 (-0.7539)	-0.1998 ** (-2.2358)	-1.2209 (-0.6919)	-0.0477 (-0.5495)	-0.1906 *** (-2.2114)	-1.0253 (-0.5949)	-0.0359 (-0.4100)	-0.1494 * (-1.7093)	-0.6801 (-0.3955)	-0.0995 (-1.1331)	-0.2407 *** (-2.7317)	-1.5539 (-0.8767)
RPTENTITY_SH	0.0656 ** (2.3513)	0.0753 *** (2.7438)	0.7767 (1.4335)							0.0430 (1.5714)	0.0567 ** (2.0659)	0.6381 (1.1552)
RPTENTITY_ASSC				-0.1364 *** (-2.9494)	-0.2242 *** (-4.8808)	-1.8474 ** (-2.0114)				-0.1404 *** (-3.0629)	-0.2209 *** (-4.7965)	-1.7960 * (-1.9388)
RPTENTITY_OAFF							0.0499 *** (3.7789)	0.0208 (1.5827)	0.1558 (0.6017)	0.0501 *** (3.8429)	0.0203 (1.5480)	0.1396 (0.5303)
BOARDSIZE	0.0422 ** (2.0844)	0.0361 * (1.8133)	0.5628 (1.4302)	0.0663 *** (3.3333)	0.0707 *** (3.5777)	0.8717 ** (2.2074)	0.0508 *** (2.5894)	0.0472 ** (2.4102)	0.6785 * (1.7624)	0.0584 *** (2.9001)	0.0608 *** (3.0107)	0.7626 * (1.8760)
FSIZE	0.0055 (1.4198)	0.0080 ** (2.0866)	0.0709 (0.9350)	0.0032 (0.8741)	0.0053 (1.4549)	0.0434 (0.5923)	0.0037 (0.9889)	0.0056 (1.4933)	0.0454 (0.6162)	0.0052 (1.3733)	0.0075 ** (1.9845)	0.0668 (0.8807)
LEVERAGE	-0.1518 *** (-8.2041)	-0.0517 *** (-2.8443)	-0.1920 (-0.5345)	-0.1537 *** (-8.5957)	-0.0510 *** (-2.8736)	-0.2049 (-0.5774)	-0.1626 *** (-9.0129)	-0.0621 *** (-3.4484)	-0.2950 (-0.8331)	-0.1513 *** (-8.4445)	-0.0455 ** (-2.5319)	-0.1385 (-0.3829)
GROWTH	0.0223 * (1.6705)	0.0124 (0.9452)	-0.0721 (-0.2775)	0.0212 (1.6212)	0.0111 (0.8545)	-0.0861 (-0.3321)	0.0229 * (1.7312)	0.0118 (0.8952)	-0.0804 (-0.3090)	0.0237 * (1.8418)	0.0128 (0.9912)	-0.0698 (-0.2684)
RESIDUALRPTENTITYSH	-0.0237 (-0.2711)	0.0001 (0.0015)	-0.6811 (-0.4010)							-0.0154 (-0.1818)	0.0202 (0.2383)	-0.5639 (-0.3299)
RESIDUALRPTENTITYASSC				0.7126 *** (5.6566)	0.1285 (1.0324)	2.4281 (0.9759)				0.7199 *** (5.7873)	0.1323 (1.0652)	2.4849 (0.9942)
RESIDUALRPTENTITYOAFF							-0.0129 (-0.4093)	-0.0304 (-0.9630)	-0.3864 (-0.6231)	-0.0194 (-0.6284)	-0.0311 (-1.0021)	-0.3907 (-0.6255)
R-squared	0.1787	0.0800	0.0209	0.2164	0.1055	0.0185	0.1933	0.0705	0.0182	0.2453	0.1200	0.0282
Adjusted R-squared	0.1699	0.0701	0.0103	0.2080	0.0959	0.0079	0.1846	0.0605	0.0076	0.2317	0.1041	0.0106
F-statistic	20.1988	8.0739	1.9788	25.6406	10.9515	1.7459	22.2374	7.0442	1.7195	17.9782	7.5397	1.6034
Prob Stat	0.0000	0.0000	0.0668	0.0000	0.0000	0.1082	0.0000	0.0000	0.1142	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.4. Firm Performance (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTS ENTITY ASSOCIATES, RPTS ENTITY OTHER AFFILIATES, INDBOC (Independent Variables)

Coefficient t-Statistic	Model 63			Model 64			Model 65			Model 66		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(8)	(9)	(10)
C	-0.1197 (-1.3764)	-0.2434 *** (-2.8470)	-1.7940 (-1.0955)	-0.1043 (-1.2235)	-0.2521 *** (-2.9677)	-1.5517 (-0.9474)	-0.0901 (-1.0635)	-0.1999** (-2.3622)	-1.3416 (-0.8321)	-0.1584 * (-1.8644)	-0.3037 *** (-3.5475)	-2.1529 (-1.2944)
RPTENTITY_SH	0.0784 *** (2.8804)	0.0863 *** (3.2241)	0.9579 * (1.8688)							0.0597 ** (2.2415)	0.0747 *** (2.7853)	0.8227 (1.5783)
RPTENTITY_ASSC				-0.0943 ** (-2.0815)	-0.1808 *** (-4.0051)	-0.9875 (-1.1343)				-0.1005 ** (-2.2594)	-0.1814 *** (-4.0419)	-1.0140 (-1.1629)
RPTENTITY_OAFF							0.0558*** (4.1922)	0.0258* (1.9415)	0.3846 (1.5193)	0.0537 *** (4.0863)	0.0227 * (1.7152)	0.3359 (1.3047)
INDBOC	0.1131 ** (2.3947)	0.1044 ** (2.2481)	5.5578 *** (6.2482)	0.1052 ** (2.2610)	0.0898 * (1.9370)	5.4738 *** (6.1250)	0.1405*** (2.9728)	0.1166** (2.4702)	5.7431*** (6.3853)	0.1323 *** (2.8733)	0.1018 ** (2.1947)	5.6480 *** (6.2658)
FSIZE	0.0091 *** (3.0101)	0.0110 *** (3.6756)	0.0576 (1.0070)	0.0092 *** (3.0386)	0.0120 *** (4.0001)	0.0557 (0.9609)	0.0078*** (2.6044)	0.0096*** (3.2094)	0.0415 (0.7323)	0.0100 *** (3.3635)	0.0131 *** (4.3695)	0.0680 (1.1639)
LEVERAGE	-0.1572 *** (-8.5572)	-0.0565 *** (-3.1285)	-0.3118 (-0.9009)	-0.1655 *** (-9.3538)	-0.0633 *** (-3.5918)	-0.4183 (-1.2305)	-0.1718*** (-9.6463)	-0.0704*** (-3.9551)	-0.4716 (-1.3914)	-0.1601 *** (-9.0030)	-0.0540 *** (-3.0154)	-0.3207 (-0.9211)
GROWTH	0.0216 (1.6217)	0.0119 (0.9056)	-0.0554 (-0.2204)	0.0193 (1.4735)	0.0089 (0.6849)	-0.0833 (-0.3311)	0.0220* (1.6633)	0.0108 (0.8201)	-0.0632 (-0.2512)	0.0229 * (1.7785)	0.0117 (0.8994)	-0.0500 (-0.1988)
RESIDUALRPTENTITYSH	-0.0367 (-0.4208)	-0.0111 (-0.1300)	-0.8552 (-0.5211)							-0.0272 (-0.3221)	0.0042 (0.0493)	-0.6810 (-0.4121)
RESIDUALRPTENTITYASSC				0.6753 *** (5.3845)	0.0976 (0.7844)	1.6703 (0.6960)				0.6848 *** (5.5607)	0.1046 (0.8459)	1.8033 (0.7506)
RESIDUALRPTENTITYOAFF							-0.0166 (-0.5244)	-0.0336 (-1.0627)	-0.5677 (-0.9425)	-0.0207 (-0.6668)	-0.0319 (-1.0190)	-0.5314 (-0.8749)
R-squared	0.1807	0.0829	0.0816	0.2093	0.0914	0.0782	0.1962	0.0708	0.0799	0.2462	0.1134	0.0867
Adjusted R-squared	0.1719	0.0730	0.0717	0.2008	0.0816	0.0682	0.1875	0.0608	0.0700	0.2325	0.0974	0.0702
F-statistic	20.4791	8.3921	8.2520	24.5791	9.3376	7.8702	22.6591	7.0731	8.0579	18.0581	7.0748	5.2527
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Observations.	564	564	564	564	564	564	564	564	564	564	564	564

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D.5. Firm Performance (Dependent Variable) and RPTS ENTITY SHAREHOLDERS, RPTS ENTITY ASSOCIATES, RPTS ENTITY OTHER AFFILIATES, BOCCOM (Independent Variables)

Coefficient t-Statistic	Model 67			Model 68			Model 69			Model 70		
	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q	ROA	CFO	TOBIN'S Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(8)	(9)	(10)
C	-0.0939 (-1.0538)	-0.2567 *** (-2.9385)	-1.9593 (-1.1304)	-0.0843 (-0.9657)	-0.2660 *** (-3.0654)	-1.8916 (-1.0919)	-0.0652 (-0.7487)	-0.2107 ** (-2.4270)	-1.4933 (-0.8722)	-0.1418 (-1.6314)	-0.3218 *** (-3.6865)	-2.4271 (-1.3791)
RPTENTITY_SH	0.0800 *** (2.9443)	0.0929 *** (3.4847)	0.9067 * (1.7139)							0.0628 ** (2.3662)	0.0832 *** (3.1206)	0.8417 (1.5665)
RPTENTITY_ASSC				-0.1129 ** (-2.4638)	-0.1940 *** (-4.2577)	-1.4026 (-1.5423)				-0.1258 *** (-2.7883)	-0.1979 *** (-4.3620)	-1.4194 (-1.5523)
RPTENTITY_OAFF							0.0536 *** (4.0068)	0.0229 * (1.7158)	0.1702 (0.6472)	0.0530 *** (4.0121)	0.0208 (1.5677)	0.1431 (0.5346)
BOCCOM	-0.0339 * (-1.7083)	-0.0125 (-0.6417)	-0.0158 (-0.0408)	-0.0373 * (-1.8983)	-0.0204 (-1.0467)	-0.0623 (-0.1597)	-0.0414 ** (-2.0854)	-0.0129 (-0.6542)	-0.0091 (-0.0232)	-0.0522 *** (-2.6749)	-0.0289 (-1.4768)	-0.1327 (-0.3358)
FSIZE	0.0104 *** (3.4353)	0.0131 *** (4.4013)	0.1427 ** (2.4250)	0.0106 *** (3.5260)	0.0141 *** (4.7229)	0.1462 ** (2.4616)	0.0095 *** (3.2131)	0.0118 *** (3.9738)	0.1297 ** (2.2214)	0.0121 *** (4.0927)	0.0156 *** (5.2326)	0.1608 *** (2.6796)
LEVERAGE	-0.1594 *** (-8.6003)	-0.0545 *** (-2.9970)	-0.2524 (-0.6996)	-0.1678 *** (-9.4014)	-0.0625 *** (-3.5259)	-0.3435 (-0.9707)	-0.1741 *** (-9.6653)	-0.0691 *** (-3.8462)	-0.3912 (-1.1048)	-0.1619 *** (-9.0341)	-0.0520 *** (-2.8875)	-0.2332 (-0.6426)
GROWTH	0.0209 (1.5593)	0.0116 (0.8811)	-0.0913 (-0.3503)	0.0185 (1.4094)	0.0086 (0.6585)	-0.1187 (-0.4555)	0.0210 (1.5832)	0.0102 (0.7700)	-0.1069 (-0.4094)	0.0221 * (1.7137)	0.0114 (0.8836)	-0.0924 (-0.3539)
RESIDUALRPTENTITYSH	-0.0289 (-0.2971)	-0.1243 (-1.3028)	-0.6060 (-0.3205)							-0.0237 (-0.2512)	-0.1093 (-1.1554)	-0.5389 (-0.2828)
RESIDUALRPTENTITYASSC				0.6887 *** (5.4680)	0.1070 (0.8580)	0.0161 (0.0054)				0.7033 *** (5.6850)	0.1197 (0.9670)	2.1096 (0.8453)
RESIDUALRPTENTITYOAFF							-0.0148 (-0.4639)	-0.0313 (-0.9871)	-0.4100 (-0.6556)	-0.0197 (-0.6320)	-0.0270 (-0.8635)	-0.3975 (-0.6301)
R-squared	0.1767	0.0781	0.0170	0.2066	0.0885	0.0185	0.1895	0.0628	0.0128	0.2435	0.1118	0.0220
Adjusted R-squared	0.1678	0.0681	0.0063	0.1980	0.0786	0.0079	0.1808	0.0527	0.0021	0.2298	0.0956	0.0042
F-statistic	19.8228	7.8250	1.5959	24.0439	8.9623	1.5091	21.5947	6.1922	1.1966	17.7056	6.9222	1.2384
Prob Stat	0.0000	0.0000	0.0000	0.0000	0.0000	0.1728	0.0000	0.0000	0.3064	0.0000	0.0000	0.2633
Number of Observations.	561	561	561	561	561	561	561	561	561	561	561	561

*** significant at 1%, ** significant at 5%, * significant at 10%

APPENDIX G: Conclusions of the Durbin-Wu-Hausman Test

No	Augmented Regression Model	ROA		CFO		Tobin's Q	
		Significance of Residual	Conclusion	Significance of Residual	Conclusion	Significance of Residual	Conclusion
1	Model 1	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
2	Model 2	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
3	Model 3	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
4	Model 4	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
5	Model 5	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
6	Model 6	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
7	Model 7	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
8	Model 8	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
9	Model 9	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
10	Model 10	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
11	Model 11	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
12	Model 12	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
13	Model 13	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
14	Model 14	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
15	Model 15	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
16	Model 16	significant at 1%	**endogeneity exist**	significant at 10%	no endogeneity	significant at 1%	**endogeneity exist**
17	Model 17	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
18	Model 18	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
19	Model 19	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
20	Model 20	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
21	Model 21	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
22	Model 22	significant at 1%	**endogeneity exist**	significant at 10%	no endogeneity	significant at 5%	**endogeneity exist**
23	Model 23	significant at 1%	**endogeneity exist**	significant at 10%	no endogeneity	significant at 5%	**endogeneity exist**
24	Model 24	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity

No	Augmented Regression Model	ROA		CFO		Tobin's Q	
		Significance of Residual	Conclusion	Significance of Residual	Conclusion	Significance of Residual	Conclusion
25	Model 25	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
26	Model 26	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
27	Model 27	significant at 10%	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
28	Model 28	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
29	Model 29	significant at 5%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
30	Model 30	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
31	Model 31	significant at 1%	**endogeneity exist**	significant at 10%	no endogeneity	significant at 1%	**endogeneity exist**
32	Model 32	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
33	Model 33	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
34	Model 34	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
35	Model 35	significant at 1%	**endogeneity exist**	significant at 5%	**endogeneity exist**	significant at 1%	**endogeneity exist**
36	Model 36	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
37	Model 37	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
38	Model 38	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
39	Model 39	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
40	Model 40	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
41	Model 41	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
42	Model 42	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
43	Model 43	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
44	Model 44	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
45	Model 45	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
46	Model 46	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
47	Model 47	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
48	Model 48	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
49	Model 49	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
50	Model 50	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**	significant at 1%	**endogeneity exist**
51	Model 51	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
52	Model 52	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity

No	Augmented Regression Model	ROA		CFO		Tobin's Q	
		Significance of Residual	Conclusion	Significance of Residual	Conclusion	Significance of Residual	Conclusion
53	Model 53	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
54	Model 54	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
55	Model 55	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
56	Model 56	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
57	Model 57	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
58	Model 58	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
59	Model 59	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
60	Model 60	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
61	Model 61	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
62	Model 62	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
63	Model 63	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
64	Model 64	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
65	Model 65	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
66	Model 66	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
67	Model 67	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
68	Model 68	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity
69	Model 69	insignificant	no endogeneity	insignificant	no endogeneity	insignificant	no endogeneity
70	Model 70	significant at 1%	**endogeneity exist**	insignificant	no endogeneity	insignificant	no endogeneity

confidence level at 5%

In total, endogeneity exist in 75 of 210 equaiton (35,71%)
Thus, endogeneity does not occur in majority of equations, i.e. 135 out of 210 equations (64,29%).

APPENDIX H: Results of Optimum Method Selection

Panel A. Combined Effect RPTs and Size of BOD

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
1	RPTTOTAL + BODSIZE	15.7517 ***	5.8693	RE	10.5407 ***	14.5553 **	FE	12.9355 ***	10.9918 *	RE
2	RPTSALES + BODSIZE	16.2250 ***	7.2878	RE	10.5530 ***	14.6538 **	FE	12.9567 ***	10.8250 *	RE
3	RPTPURCHASES + BODSIZE	15.7335 ***	7.2160	RE	10.6321 ***	14.7474 **	FE	12.9481 ***	10.6864 *	RE
4	RPTSALES + RPTPURCHASES + BODSIZE	15.8804 ***	7.5604	RE	10.5580 ***	14.6615 **	FE	12.8900 ***	10.5554	RE
5	RPTLENDING +NBODSIZE	16.1714 ***	7.4408	RE	10.6176 ***	15.7829 ***	FE	12.8639 ***	10.9283 *	RE
6	RPTLIABILITIES + BODSIZE	15.9421 ***	6.5061	RE	10.4572 ***	12.5441 **	FE	12.4851 ***	15.0047 **	FE
7	RPTLENDING + RPTLIABILITIES + BODSIZE	16.0061 ***	6.9079	RE	10.4425 ***	13.5490 **	FE	12.3473 ***	14.8470 **	FE
8	RPTPERSON + BODSIZE	16.0503 ***	7.3375	RE	10.5293 ***	17.3915 ***	FE	12.6653 ***	15.0684 **	FE
9	RPTENTITY + BODSIZE	15.8096 ***	6.0721	RE	10.5612 ***	14.3900 **	FE	12.9976 ***	11.1752 **	FE
10	RPTPERSON + RPTENTITY + BODSIZE	15.7421 ***	6.1133	RE	10.4708 ***	17.0186 ***	FE	12.6410 ***	15.0133 **	FE
11	RPTENTITY_SH + BODSIZE	15.9159 ***	7.6234	RE	10.4594 ***	12.4799 **	FE	12.9719 ***	10.9027 *	RE
12	RPTENTITY_ASSC + BODSIZE	16.4048 ***	12.8076 **	FE	10.0766 ***	18.2626 ***	FE	12.8864 ***	10.6187 *	RE
13	RPTENTITY_OAFF + BODSIZE	15.7406 ***	6.6509	RE	10.5491 ***	15.3462 ***	FE	13.0115 ***	11.4385 **	FE
14	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BODSIZE	15.8865 ***	12.7600 *	RE	9.8883 ***	16.2686 **	FE	12.8696 ***	10.9157	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel B. Combined Effect RPTs and Size of BOC

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
15	RPTTOTAL + BOCSIZE	15.7368 ***	8.8336	RE	10.8212 ***	14.6664 **	FE	12.7989 ***	9.4771 *	RE
16	RPTSALES + BOCSIZE	16.2002 ***	9.8038 *	RE	10.7697 ***	15.2984 ***	FE	12.8632 ***	9.5533 *	RE
17	RPTPURCHASES + BOCSIZE	15.8442 ***	11.1509 **	FE	10.9327 ***	14.5984 ***	FE	12.8316 ***	9.2475 *	RE
18	RPTSALES + RPTPURCHASES + BOCSIZE	15.9133 ***	10.2071	RE	10.7566 ***	15.1982 **	FE	12.8128 ***	9.3102	RE
19	RPTLENDING +NBOCSIZE	16.2086 ***	11.4030 **	FE	10.9491 ***	15.2209 ***	FE	12.7790 ***	9.5635 *	RE
20	RPTLIABILITIES + BOCSIZE	15.9980 ***	9.5981 *	RE	10.7250 ***	10.6762 *	RE	12.3726 ***	13.8699 **	FE
21	RPTLENDING + RPTLIABILITIES + BOCSIZE	16.0466 ***	10.1774	RE	10.7278 ***	11.1965 *	RE	12.2745 ***	13.7525 **	FE
22	RPTPERSON + BOCSIZE	16.0827 ***	10.9372 *	RE	10.8195 ***	17.5430 ***	FE	12.5695 ***	14.1530 **	FE
23	RPTENTITY + BOCSIZE	15.7778 ***	9.1880	RE	10.8505 ***	14.5004 **	FE	12.8664 ***	9.8574 *	RE
24	RPTPERSON + RPTENTITY + BOCSIZE	15.7018 ***	8.9779	RE	10.7360 ***	17.2204 ***	FE	12.5372 ***	14.1162 **	FE
25	RPTENTITY_SH + BOCSIZE	15.8649 ***	11.5043 **	FE	10.6886 ***	13.2421 **	FE	12.8125 ***	9.0385	RE
26	RPTENTITY_ASSC + BOCSIZE	16.5702 ***	16.8643 ***	FE	10.4023 ***	18.6306 ***	FE	12.7745 ***	9.5565 *	RE
27	RPTENTITY_OAFF + BOCSIZE	15.7837 ***	10.3035 *	RE	10.8584 ***	15.3620 ***	FE	12.8871 ***	10.0183 *	RE
28	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOCSIZE	15.9584 ***	16.8271 **	FE	10.1297 ***	17.3557 **	FE	12.7204 ***	9.4516	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel C. Combined Effect RPTs and Size of the Board

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
29	RPTTOTAL + BOARDSIZE	15.6281 ***	6.4585	RE	10.7007 ***	17.2379 ***	FE	12.9281 ***	11.0970 **	FE
30	RPTSALES + BOARDSIZE	16.0828 ***	7.6329	RE	10.6930 ***	17.3564 ***	FE	12.9640 ***	10.9369 *	RE
31	RPTPURCHASES + BOARDSIZE	15.6249 ***	7.9906	RE	10.7888 ***	17.4244 ***	FE	12.9398 ***	10.7560 *	RE
32	RPTSALES + RPTPURCHASES + BOARDSIZE	15.7600 ***	7.9736	RE	10.6930 ***	17.2530 ***	FE	12.8993 ***	10.6402	RE
33	RPTLENDING + BOARDSIZE	16.0374 ***	8.1480	RE	10.7900 ***	18.5742 ***	FE	12.8648 ***	10.9862 *	RE
34	RPTLIABILITIES +BOARDSIZE	15.8632 ***	6.9786	RE	10.6511 ***	14.2140 **	FE	12.5185 ***	15.1044 ***	FE
35	RPTLENDING + RPTLIABILITIES + BOARDSIZE	15.9231 ***	7.4403	RE	10.6485 ***	15.1371 **	FE	12.3984 ***	14.8108 **	FE
36	RPTPERSON + BOARDSIZE	15.9258 ***	7.9263	RE	10.6935 ***	19.8118 ***	FE	12.6609 ***	15.1087 ***	FE
37	RPTENTITY + BOARDSIZE	15.6715 ***	6.6083	RE	10.7210 ***	17.1383 ***	FE	12.9917 ***	11.2741 **	FE
38	RPTPERSON + RPTENTITY + BOARDSIZE	15.6087 ***	6.5973	RE	10.6323 ***	19.3781 ***	FE	12.6356 ***	15.0690 **	FE
39	RPTENTITY_SH + BOARDSIZE	15.7627 ***	8.4927	RE	10.6035 ***	15.3435 ***	FE	12.9532 ***	10.9119 *	RE
40	RPTENTITY_ASSC + BOARDSIZE	16.3273 ***	14.4521 **	FE	10.1738 ***	22.2322 ***	FE	12.8608 ***	10.7287 *	RE
41	RPTENTITY_OAFF + BOARDSIZE	15.6168 ***	7.2956	RE	10.7100 ***	18.1307 ***	FE	13.0050 ***	11.5287 **	FE
42	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOARDSIZE	15.7938 ***	14.5377 **	FE	9.9819 ***	20.1374 ***	FE	12.8361 ***	10.9473	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel D. Combined Effect RPTs and Independence of BOC

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
43	RPTTOTAL + INDBOC	15.6988 ***	8.1435	RE	10.5872 ***	11.8260 **	FE	11.8746 ***	13.7081 **	FE
44	RPTSALES + INDBOC	16.1900 ***	8.6825	RE	10.5366 ***	12.7678 **	FE	12.0209 ***	13.3855 **	FE
45	RPTPURCHASES + INDBOC	15.8734 ***	10.7121 *	RE	10.7555 ***	11.5757 **	FE	11.9479 ***	13.3459 **	FE
46	RPTSALES + RPTPURCHASES + INDBOC	15.8440 ***	9.2485	RE	10.5352 ***	12.7695 **	FE	11.9388 ***	13.3471 **	FE
47	RPTLENDING2 + INDBOC	16.3181 ***	11.2469 **	FE	10.7551 ***	11.6426 **	FE	11.9919 ***	12.9012 **	FE
48	RPTLIABILITIES + INDBOC	16.1282 ***	8.8774	RE	10.5703 ***	8.2856	RE	11.5601 ***	16.1818 ***	FE
49	RPTLENDING + RPTLIABILITIES + INDBOC	16.1964 ***	9.9487	RE	10.5680 ***	8.4478	RE	11.5199 ***	15.5884 **	FE
50	RPTPERSON + INDBOC	16.1710 ***	10.1341 *	RE	10.6196 ***	14.3039 **	FE	11.7271 ***	16.5799 ***	FE
51	RPTENTITY + INDBOC	15.7413 ***	8.6523	RE	10.6252 ***	11.5970 **	FE	11.9743 ***	14.3311 **	FE
52	RPTPERSON + RPTENTITY + INDBOC	15.6657 ***	8.1653	RE	10.5015 ***	14.1471 **	FE	11.6569 ***	16.7546 **	FE
53	RPTENTITY_SH + INDBOC	15.9560 ***	11.3449 **	FE	10.4753 ***	10.1097 *	RE	11.9567 ***	12.8188 **	FE
54	RPTENTITY_ASSC + INDBOC	16.6822 ***	16.1634 ***	FE	10.3218 ***	14.0163 **	FE	11.9691 ***	13.2841 **	FE
55	RPTENTITY_OAFF + INDBOC	15.7663 ***	9.9579 *	RE	10.6364 ***	12.5088 **	FE	11.9940 ***	14.6816 **	FE
56	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + INDBOC	15.9676 ***	16.8051 **	FE	9.9876 ***	13.0613 *	RE	11.8676 ***	13.7958 *	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

Panel E. Combined Effect RPTs and Number of Committees in BOC

No	Equation	ROA			CFO			Tobin's Q		
		Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model	Redundant Fixed Effects test	Hausman Test	Optimum Model
57	RPTTOTAL + BOCCOM	15.7304 ***	11.7482 **	FE	11.0528 ***	13.6200 **	FE	12.8014 ***	9.6245 *	RE
58	RPTSALES + BOCCOM	16.2028 ***	12.1082 **	FE	10.9966 ***	14.1179 **	FE	12.8630 ***	9.5796 *	RE
59	RPTPURCHASES + BOCCOM	15.8833 ***	13.7035 **	FE	11.1707 ***	13.0905 **	FE	12.8409 ***	9.4303 *	RE
60	RPTSALES + RPTPURCHASES + BOCCOM	15.9206 ***	12.7351 **	FE	10.9800 ***	13.9905 **	FE	12.8185 ***	9.4305	RE
61	RPTLENDING + BOCCOM	16.2466 ***	13.6829 **	FE	11.1668 ***	13.4231 **	FE	12.7781 ***	9.4811 *	RE
62	RPTLIABILITIES +BOCCOM	15.9872 ***	12.0041 **	FE	10.9274 ***	10.4524 *	RE	12.3580 ***	13.3650 **	FE
63	RPTLENDING + RPTLIABILITIES + BOCCOM	16.0389 ***	12.5340 *	RE	10.9121 ***	10.6946 *	RE	12.2492 ***	13.1329 **	FE
64	RPTPERSON + BOCCOM	16.0934 ***	13.3560 **	FE	11.0407 ***	16.3902 ***	FE	12.5894 ***	14.0423 **	FE
65	RPTENTITY + BOCCOM	15.7804 ***	12.1197 **	FE	11.0852 ***	13.3635 **	FE	12.8661 ***	9.9207 *	RE
66	RPTPERSON + RPTENTITY + BOCCOM	15.6896 ***	11.9397 *	RE	10.9544 ***	16.3663 **	FE	12.5586 ***	13.9779 **	FE
67	RPTENTITY_SH + BOCCOM	15.8837 ***	13.9586 **	FE	10.8831 ***	12.6337 **	FE	12.8259 ***	9.2100	RE
68	RPTENTITY_ASSC + BOCCOM	16.6279 ***	19.3692 ***	FE	10.6990 ***	16.7771 ***	FE	12.7963 ***	10.0062 *	RE
69	RPTENTITY_OAFF + BOCCOM	15.7770 ***	13.3025 **	FE	11.0933 ***	13.9350 **	FE	12.8922 ***	10.0833 *	RE
70	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOCCOM	15.9573 ***	20.2846 ***	FE	10.3553 ***	16.6307 **	FE	12.7479 ***	9.9031	RE

*** significant at 1%, ** significant at 5%, * significant at 10%

APPENDIX I: Results of the Durbin-Watson Test

Panel A. RPTs, Size of BOD and Control Variables as Independent Variables

No	Equation Model	Durbin-Watson *d* Statistic						K include intercept	Critical Value n=650	
		ROA	Conclusion	CFO	Conclusion	Tobin's Q	Conclusion		dL	dU
1	RPTTOTAL + BODSIZE	1.8535	Autocorrelation	2.1318	Autocorrelation	1.1563	Autocorrelation	6	1.8557	1.8867
2	RPTSALES + BODSIZE	1.8506	Autocorrelation	2.1329	Autocorrelation	1.1564	Autocorrelation	6	1.8557	1.8867
3	RPTPURCHASES + BODSIZE	1.8670	No Autocorrelation	2.1350	Autocorrelation	1.1578	Autocorrelation	6	1.8557	1.8867
4	RPTSALES + RPTPURCHASES + BODSIZE	1.8534	No Autocorrelation	2.1362	Autocorrelation	1.1581	Autocorrelation	7	1.8525	1.8898
5	RPTLENDING + BODSIZE	1.8887	Autocorrelation	2.1305	Autocorrelation	1.1604	Autocorrelation	6	1.8557	1.8867
6	RPTLIABILITIES + BODSIZE	1.8579	No Autocorrelation	2.1431	Autocorrelation	1.1560	Autocorrelation	6	1.8557	1.8867
7	RPTLENDING + RPTLIABILITIES + BODSIZE	1.8826	No Autocorrelation	2.1421	Autocorrelation	1.1605	Autocorrelation	7	1.8525	1.8898
8	RPTPERSON + BODSIZE	1.8658	No Autocorrelation	2.1324	Autocorrelation	1.1715	Autocorrelation	6	1.8557	1.8867
9	RPTENTITY + BODSIZE	1.8590	No Autocorrelation	2.1315	Autocorrelation	1.1568	Autocorrelation	6	1.8557	1.8867
10	RPTPERSON + RPTENTITY + BODSIZE	1.8578	No Autocorrelation	2.1326	Autocorrelation	1.1714	Autocorrelation	7	1.8525	1.8898
11	RPTENTITY_SH + BODSIZE	1.8646	No Autocorrelation	2.1384	Autocorrelation	1.1583	Autocorrelation	6	1.8557	1.8867
12	RPTENTITY_ASSC + BODSIZE	1.7996	Autocorrelation	2.1320	Autocorrelation	1.1569	Autocorrelation	6	1.8557	1.8867
13	RPTENTITY_OAFF + BODSIZE	1.8690	No Autocorrelation	2.1331	Autocorrelation	1.1566	Autocorrelation	6	1.8557	1.8867
14	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BODSIZE	1.8055	Autocorrelation	2.1397	Autocorrelation	1.1594	Autocorrelation	8	1.8494	1.8930

Panel B. RPTs, Size of BOC and Control Variables as Independent Variables

No	Equation Model	Durbin-Watson *d* Statistic						K include intercept	Critical Value n=650	
		ROA	Conclusion	CFO	Conclusion	Tobin's Q	Conclusion		dL	dU
15	RPTTOTAL + BOCSIZE	1.8387	Autocorrelation	2.1608	Autocorrelation	1.1575	Autocorrelation	6	1.8557	1.8867
16	RPTSALES + BOCSIZE	1.8374	Autocorrelation	2.1613	Autocorrelation	1.1579	Autocorrelation	6	1.8557	1.8867
17	RPTPURCHASES + BOCSIZE	1.8515	Autocorrelation	2.1635	Autocorrelation	1.1581	Autocorrelation	6	1.8557	1.8867
18	RPTSALES + RPTPURCHASES + BOCSIZE	1.8390	Autocorrelation	2.1642	Autocorrelation	1.1586	Autocorrelation	7	1.8525	1.8898
19	RPTLENDING + BOCSIZE	1.8688	No Autocorrelation	2.1601	Autocorrelation	1.1602	Autocorrelation	6	1.8557	1.8867
20	RPTLIABILITIES +BOCSIZE	1.8434	Autocorrelation	2.1665	Autocorrelation	1.1594	Autocorrelation	6	1.8557	1.8867
21	RPTLENDING + RPTLIABILITIES + BOCSIZE	1.8628	No Autocorrelation	2.1658	Autocorrelation	1.1629	Autocorrelation	7	1.8525	1.8898
22	RPTPERSON + BOCSIZE	1.8485	Autocorrelation	2.1608	Autocorrelation	1.1738	Autocorrelation	6	1.8557	1.8867
23	RPTENTITY + BOCSIZE	1.8435	Autocorrelation	2.1606	Autocorrelation	1.1579	Autocorrelation	6	1.8557	1.8867
24	RPTPERSON + RPTENTITY + BOCSIZE	1.8397	Autocorrelation	2.1611	Autocorrelation	1.1736	Autocorrelation	7	1.8525	1.8898
25	RPTENTITY_SH + BOCSIZE	1.8506	Autocorrelation	2.1677	Autocorrelation	1.1593	Autocorrelation	6	1.8557	1.8867
26	RPTENTITY_ASSC + BOCSIZE	1.7808	Autocorrelation	2.1606	Autocorrelation	1.1564	Autocorrelation	6	1.8557	1.8867
27	RPTENTITY_OAFF + BOCSIZE	1.8536	Autocorrelation	2.1623	Autocorrelation	1.1578	Autocorrelation	6	1.8557	1.8867
28	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOCSIZE	1.7856	Autocorrelation	2.1686	Autocorrelation	1.1584	Autocorrelation	8	1.8494	1.8930

Panel C. RPTs, Size of BOARDSIZE and Control Variables as Independent Variables

No	Equation Model	Durbin-Watson *d* Statistic						K include intercept	Critical Value n=650	
		ROA	Conclusion	CFO	Conclusion	Tobin's Q	Conclusion		dL	dU
29	RPTTOTAL + BOARDSIZE	1.8437	Autocorrelation	2.1506	Autocorrelation	1.1693	Autocorrelation	6	1.8557	1.8867
30	RPTSALES + BOARDSIZE	1.8403	Autocorrelation	2.1510	Autocorrelation	1.1708	Autocorrelation	6	1.8557	1.8867
31	RPTPURCHASES + BOARDSIZE	1.8565	No Autocorrelation	2.1544	Autocorrelation	1.1708	Autocorrelation	6	1.8557	1.8867
32	RPTSALES + RPTPURCHASES + BOARDSIZE	1.8424	Autocorrelation	2.1547	Autocorrelation	1.1724	Autocorrelation	7	1.8525	1.8898
33	RPTLENDING + BOARDSIZE	1.8763	No Autocorrelation	2.1509	Autocorrelation	1.1740	Autocorrelation	6	1.8557	1.8867
34	RPTLIABILITIES + BOARDSIZE	1.8479	Autocorrelation	2.1622	Autocorrelation	1.1699	Autocorrelation	6	1.8557	1.8867
35	RPTLENDING + RPTLIABILITIES + BOARDSIZE	1.8706	No Autocorrelation	2.1620	Autocorrelation	1.1751	Autocorrelation	7	1.8525	1.8898
36	RPTPERSON + BOARDSIZE	1.8545	Autocorrelation	2.1506	Autocorrelation	1.1800	Autocorrelation	6	1.8557	1.8867
37	RPTENTITY + BOARDSIZE	1.8492	Autocorrelation	2.1506	Autocorrelation	1.1698	Autocorrelation	6	1.8557	1.8867
38	RPTPERSON + RPTENTITY + BOARDSIZE	1.8466	Autocorrelation	2.1507	Autocorrelation	1.1799	Autocorrelation	7	1.8525	1.8898
39	RPTENTITY_SH + BOARDSIZE	1.8548	Autocorrelation	2.1575	Autocorrelation	1.1715	Autocorrelation	6	1.8557	1.8867
40	RPTENTITY_ASSC + BOARDSIZE	1.7869	Autocorrelation	2.1517	Autocorrelation	1.1695	Autocorrelation	6	1.8557	1.8867
41	RPTENTITY_OAFF + BOARDSIZE	1.8589	No Autocorrelation	2.1523	Autocorrelation	1.1696	Autocorrelation	6	1.8557	1.8867
42	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOARDSIZE	1.7922	Autocorrelation	2.1592	Autocorrelation	1.1717	Autocorrelation	8	1.8494	1.8930

Panel D. RPTs, Independence of BOC and Control Variables as Independent Variables

No	Equation Model	Durbin-Watson *d* Statistic						K include intercept	Critical Value n=650	
		ROA	Conclusion	CFO	Conclusion	Tobin's Q	Conclusion		dL	dU
43	RPTTOTAL + INDBOC	1.8166	Autocorrelation	2.1392	Autocorrelation	1.1580	Autocorrelation	6	1.8557	1.8867
44	RPTSALES + INDBOC	1.8123	Autocorrelation	2.1411	Autocorrelation	1.1579	Autocorrelation	6	1.8557	1.8867
45	RPTPURCHASES + INDBOC	1.8306	Autocorrelation	2.1421	Autocorrelation	1.1585	Autocorrelation	6	1.8557	1.8867
46	RPTSALES + RPTPURCHASES + INDBOC	1.8141	Autocorrelation	2.1441	Autocorrelation	1.1588	Autocorrelation	7	1.8525	1.8898
47	RPTLENDING + INDBOC	1.8494	Autocorrelation	2.1379	Autocorrelation	1.1603	Autocorrelation	6	1.8557	1.8867
48	RPTLIABILITIES + INDBOC	1.8216	Autocorrelation	2.1523	Autocorrelation	1.1595	Autocorrelation	6	1.8557	1.8867
49	RPTLENDING + RPTLIABILITIES + INDBOC	1.8430	Autocorrelation	2.1513	Autocorrelation	1.1627	Autocorrelation	7	1.8525	1.8898
50	RPTPERSON + INDBOC	1.8271	Autocorrelation	2.1398	Autocorrelation	1.1818	Autocorrelation	6	1.8557	1.8867
51	RPTENTITY + INDBOC	1.8217	Autocorrelation	2.1388	Autocorrelation	1.1584	Autocorrelation	6	1.8557	1.8867
52	RPTPERSON + RPTENTITY + INDBOC	1.8174	Autocorrelation	2.1400	Autocorrelation	1.1817	Autocorrelation	7	1.8525	1.8898
53	RPTENTITY_SH + INDBOC	1.8296	Autocorrelation	2.1446	Autocorrelation	1.1588	Autocorrelation	6	1.8557	1.8867
54	RPTENTITY_ASSC + INDBOC	1.7587	Autocorrelation	2.1387	Autocorrelation	1.1566	Autocorrelation	6	1.8557	1.8867
55	RPTENTITY_OAFF + INDBOC	1.8322	Autocorrelation	2.1402	Autocorrelation	1.1582	Autocorrelation	6	1.8557	1.8867
56	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + INDBOC	1.7628	Autocorrelation	2.1452	Autocorrelation	1.1582	Autocorrelation	8	1.8494	1.8930

Panel E. RPTs, Number of Committees in BOC and Control Variables as Independent Variables

No	Equation Model	Durbin-Watson *d* Statistic						K include intercept	Critical Value n=650	
		ROA	Conclusion	CFO	Conclusion	Tobin's Q	Conclusion		dL	dU
57	RPTTOTAL + BOCCOM	1.8578	No Autocorrelation	2.1377	Autocorrelation	1.1444	Autocorrelation	6	1.8557	1.8867
58	RPTSALES + BOCCOM	1.8568	No Autocorrelation	2.1385	Autocorrelation	1.1444	Autocorrelation	6	1.8557	1.8867
59	RPTPURCHASES + BOCCOM	1.8700	No Autocorrelation	2.1403	Autocorrelation	1.1452	Autocorrelation	6	1.8557	1.8867
60	RPTSALES + RPTPURCHASES + BOCCOM	1.8581	No Autocorrelation	2.1415	Autocorrelation	1.1448	Autocorrelation	7	1.8525	1.8898
61	RPTLENDING + BOCCOM	1.8861	No Autocorrelation	2.1393	Autocorrelation	1.1469	Autocorrelation	6	1.8557	1.8867
62	RPTLIABILITIES + BOCCOM	1.8627	No Autocorrelation	2.1471	Autocorrelation	1.1440	Autocorrelation	6	1.8557	1.8867
63	RPTLENDING + RPTLIABILITIES + BOCCOM	1.8804	No Autocorrelation	2.1485	Autocorrelation	1.1465	Autocorrelation	7	1.8525	1.8898
64	RPTPERSON + BOCCOM	1.8673	No Autocorrelation	2.1389	Autocorrelation	1.1672	Autocorrelation	6	1.8557	1.8867
65	RPTENTITY + BOCCOM	1.8625	No Autocorrelation	2.1373	Autocorrelation	1.1461	Autocorrelation	6	1.8557	1.8867
66	RPTPERSON + RPTENTITY + BOCCOM	1.8589	No Autocorrelation	2.1391	Autocorrelation	1.1673	Autocorrelation	7	1.8525	1.8898
67	RPTENTITY_SH + BOCCOM	1.8689	No Autocorrelation	2.1468	Autocorrelation	1.1462	Autocorrelation	6	1.8557	1.8867
68	RPTENTITY_ASSC + BOCCOM	1.7974	Autocorrelation	2.1374	Autocorrelation	1.1434	Autocorrelation	6	1.8557	1.8867
69	RPTENTITY_OAFF + BOCCOM	1.8716	No Autocorrelation	2.1388	Autocorrelation	1.1461	Autocorrelation	6	1.8557	1.8867
70	RPTENTITY_SH + RPTENTITY_ASSC + RPTENTITY_OAFF + BOCCOM	1.8005	Autocorrelation	2.1479	Autocorrelation	1.1460	Autocorrelation	8	1.8494	1.8930