DOES LEGAL TRANSPLANTATION WORK?
THE CASE OF INDONESIAN CORPORATE GOVERNANCE REFORMS[1]

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ABSTRACT

This study examines the impact of corporate governance reforms by analysing the relation between firms' operating performance and key ownership structure and corporate governance variables on a sample of firms listed on the Jakarta Stock Exchange between the periods 1993 to 2007. Contrary to widespread belief that reforms in Indonesia have failed, this paper provides empirical evidence in support of the positive impact of corporate governance reforms. While the impact of family control, the firms' business group affiliation, divergence between cash flow and control rights and political connection are all negatively associated with firms' operating performance (ROA) for the pre-reform period (i.e., 1993-1999), these negative effects disappear during the post-reform period (i.e., 2001-2007), except for family control. More importantly, the relationship between family control and operating performance is negative only when the family's control right exceeds their cash flow right. This study provides some empirical evidence and insights to both regulators and development assistance agencies on the effectiveness of Indonesian corporate governance reforms.

Keywords: corporate governance reform, controlling shareholders, firm performance, Indonesia

INTRODUCTION

Weaknesses in Asian corporate governance systems have been widely attributed as a primary cause of the 1997 Asian crisis and its after-effects (Kim *et al.* 2010; Dickinson and Mullineux, 2001; Capulong *et al.* 2000;

Johnson *et al.* 2000). In the wake of the crisis, there was consensus among leading economic groups and development assistance agencies such as the Organization for Economic Cooperation and Development (OECD), the World Bank and the Asian Development Bank (ADB) that one of the best responses to the Asian economic crisis was to implement wide-ranging legal infrastructure reforms. As such

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the OECD, which had developed model corporate governance codes for ready international transplantation, was of the firm opinion that implementation of these 'ready-made' reforms would bring about a quick improvement in national economic performance (Hill, 2005, p. 743). This thinking was premised on the assumption that 'ready-made' Principles of Corporate Governance, developed along the concepts of fairness, transparency, accountability and responsibility, would also more readily assist member and non-member governments to both implement and evaluate their corporate governance frameworks.

Accordingly a range of initiatives to promote both legal infrastructure and corporate governance reforms in Indonesia was launched at the close of the century. As part of the governance reforms mandated by the IMF, the National Committee for Corporate Governance (NCCG) in Indonesia was established on 9 August 1999. In March 2000, the NCCG issued the Indonesian Code of Corporate Governance, which was primarily adopted from the OECD Principles of Corporate Governance. Consequently, the BAPEPAM (the Capital Market Supervisory Agency) and the Jakarta Stock Exchange have also issued numerous rules, regulations and recommendations as part of the overall corporate governance reforms in Indonesia. These extensive reform measures included improving the quality of information that management is required to provide to shareholders and the general public, enhancing minority shareholders' participation in corporate decision making, making boards of directors more effective and more independent and reducing the likelihood of related-party transactions that would harm minority shareholders. Most of these governance reforms have been adopted and transplanted from western countries, primarily from the United States. However, much doubt, especially among law scholars (e.g., Kamal, 2008; Hill, 2005; Daniel, 2003; Fitzpatrick, 2000), has been expressed about the effective-

ness of these corporate governance reforms in Indonesia. This skepticism is based on the following three reasons.

First, corporate governance reforms adopted by Indonesia have evolved originally from the United States where ownership of corporations is diffuse. In such an environment dispersed shareholders have low incentives to monitor managers due to the free rider problem (i.e., dispersed shareholders are uninterested in monitoring because they bear all the monitoring costs and share only a small proportion of the benefits). As a result, the effective control of corporations ends up in the hands of management. When ownership is diffuse, agency problems will stem from conflicts of interest between outside shareholders, who own the firm, and managers, who control the firm (Jensen and Meckling, 1976).

In contrast, most corporations in Indonesia are characterised by highly concentrated ownership structures that are usually composed of family groups and these firms are greatly influenced by the family's involvement in management. Family controlled corporations are not characterised by a separation of ownership and control nor are Indonesian corporations run by professional managers whose interests may diverge from dispersed shareholders. Consequently, controlling families in Indonesian corporations have the ability to extract private benefits at the expense of minority shareholders. In other words, in family controlled and owned corporations the nature of the agency problem shifts away from classic manager-shareholder conflict (referred to here as Agency Problem I) to conflicts between the controlling owner (who is often also the manager) and minority shareholders (referred to here as Agency Problem II).Accordingly corporate governance mechanisms intended to combat Agency Problem I may not be suitable for alleviating Agency Problems II in Indonesia (Fitzpatrick, 2000).

Second, implementation of good corporate governance adopted from foreign cultures will

not achieve success since these governance mechanisms have been developed in a totally different culture (Daniel, 2003). Foreign adopted corporate governance systems work well in western countries because these regulations have been developed in cultures where there is usually stronger legal investor protection which assists in lowering private benefits of control and the principles of corporate governance are part of the legal culture. In contrast, Indonesia has weak legal investor protection (La Porta *et al.* 2000; Claessens *et al.* 2000) and higher private benefits of control. Thus the implementation of corporate governance mechanisms among listed firms in Indonesia faces many challenges which arise from the concentration of ownership, pyramid structures among group companies, cross shareholdings, corruption, and cronyism. These characteristics are found in most listed companies in Indonesia and often it has become something akin to a unique "culture" for the companies (Daniel, 2003).

Morck and Yeung (2004) maintain that the quality of legal protection determines the impact of a particular governance mechanism. They argue that family governance improves firm performance in the United States (e.g., Anderson and Reeb, 2004) precisely because families have large fortunes tied up in the firm, thus decreasing the likelihood of mismanagement. More importantly, legal protection in the U.S. is strong and it effectively prevents family firms from expropriating minority shareholder wealth. In contrast, as a result of weaker investor protection in Indonesia (Claessens *et al.* 2000) many family firms in Indonesia are able to employ pyramid structures which allow families to control numerous firms without investing too much of their own wealth in each firm – the 'conglomeration' phenomenon. These structures create incentives for family shareholders to spend minority shareholders' money on things they desire and therefore reduce firm value.

Third, Indonesia has introduced many of its corporate governance reforms as a condition of the financial assistance provided by the International Monetary Fund (IMF). As this is not a self-motivated initiative, many corporations are reluctant to adopt and implement these reforms. Therefore, reforms have mostly only materialized on paper, in the form of very detailed and strict laws and regulations (Alijoyo *et al.* 2004).

In summary, much doubt has been expressed as to whether legal transplantation of the Anglo-American corporate governance model will work in Indonesia. Many of the corporate governance changes introduced in Indonesia are seen as cosmetic, because embedded institutional and socio-cultural norms and values limit the effectiveness of the newly instituted mechanisms. While these sceptical conjectures on Indonesia's corporate governance reforms are theoretically justified, there is no study to date that has empirically tested these assertions. Accordingly our paper provides a contribution to the corporate governance literature and to the convergence debate by investigating whether corporate governance reforms adopted in Indonesia in 2000have had an effect on corporate performance. Specifically, this study examines whether the Indonesian corporate governance reforms have indeed led to a decline in expropriation of minority shareholders by controlling shareholders (i.e., Type II agency problems). If corporate governance reforms in Indonesia are effective in reducing Type II agency problems, we should observe concomitant improvements infirms' operating performances. We answer this research question in two ways.

First, we evaluate the impact of corporate governance reforms by analysing the relation between firms' operating performance and key ownership structure variables on a sample of firms listed on the Jakarta Stock Exchange between the periods1993 to 2007. The dependent variables include return on assets (ROA), a measure of firm's operating per-

formance, Tobin's Q, a measure of firms' market value and shareholders' wealth, and hold and buy monthly share returns as an alternative measure of firm performance. Explanatory variables include family control, divergence between control and cash flow rights, firm's association with a business group, and the firm's political connection. These factors are believed to be part of the controlling shareholder's strategy to extract private benefits of control at the expense of minority shareholders and therefore, are cited as the major sources of corporate governance vulnerabilities that led to the Indonesian economic downturn in 1997(e.g., Nam and Nam, 2004; Fisman, 2001; Capulong *et al.* 2000; Claessens *et al.* 2000). More specifically, empirical studies (e.g., Baek *et al.* 2004; Mitton, 2002; Johnson *et al.* 2000) conducted on the 1997 Asian financial crisis show that the above-mentioned factors had a negative impact on firm value during the economic crisis.

Second, we examine specifically the operating performance effects of the Jakarta Stock Exchange (JSX) rules issued in 2000 related to the independence of the board of commissioners[2]. The JSX rules require that the proportion of independent commissioners is in line with the proportion of shares held by non-controlling or public shareholders, subject to the requirement that the number of independent commissioners must not be less than 30 per cent of all members of the Board of Commissioners. This research question evaluates whether Indonesian publicly-listed firms that complied with the JSX rules related to board

of commissioners in 2000, experienced improvements in firms' operating performance.

Contrary to widespread belief that corporate governance reforms in Indonesia have failed, this paper provides empirical evidence in support of the positive impact of corporate governance reforms in Indonesia. The impact of family control, firms' business group affiliation, divergence between cash flow and control rights and political connections on operating performance are all negatively associated with firms' operating performance for the pre-reform period (i.e., 1993-1999). These negative results support the view that these four governance structures are a primary source of Agency Problem II (i.e., expropriation of minority shareholders by controlling shareholders).Interestingly, the negative effects of these key governance variables disappear during the post-reform period (i.e., 2001-2007), except for family control. More importantly, the relationship between family control and operating performance is negative only when the family's control right exceeds their cash flow right.

We also provide evidence in support of the positive impact of board independence. Firms in Indonesia that comply with the JSX rules related to independent commissioner are better performers compared to those that do not comply. In spite of doubts being expressed about the legislative effectiveness of transplanting the Anglo-American corporate governance model based on strong legal protection into a socio-cultural environment of weak legal protection, our results provide evidence that these transplanted corporate governance mechanisms are effective in reducing Agency Problem II and in improving corporate performance.

This study provides some empirical evidence and insights to both regulators and development assistance agencies on the effectiveness of Indonesian corporate governance reforms. By demonstrating that a negative relationship exists between family control and

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[2]Indonesia follows a two-tier board of directors' regime. The main feature of this model is the clear demarcation between the roles of the company's management and the company's supervisory board (Kamal, 2008). Under a two-tier board model (which emanates from Indonesia's Dutch colonial heritage and civil law), companies are comprised of three legal entities, namely, general meeting of shareholders, management, and the supervisory board. This is in contrast to the unitary model, which comprises two legal entities, that is, the general meeting of shareholders and the board of directors (see Kamal, 2008).

operating performance only when the family's control rights exceed their cash flow rights during the post-reform period, our study offers some additional insights on how corporate governance regulations should be enhanced in Indonesia to effectively protect minority shareholders against expropriation and thus to facilitate the healthy development of the Jakarta stock market.

The remainder of the paper is organized as follows. The next section presents key corporate governance problems in Indonesia and its reform as well as providing a description of the board system in Indonesia and major corporate governance reforms related to board independence. Section 3 describes the research designs and Section 4 reports our results. Section 5 concludes and discusses the implications of our findings.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1. Key corporate governance problems and regulatory reform in Indonesia

Unlike companies in the USA and UK whose shares are mostly diffusely held, Indonesian corporations like other Asian corporations (e.g., Malaysia, South Korea, Philippines, Thailand) typically have large shareholders (usually family) who tightly control shares. Large block holders can use their influence in two ways. On the one hand, they can influence management to make decisions that increases overall shareholder value which benefits all shareholders (i.e., shared benefits of control), while on the other hand, large blockholders can influence management to provide them with private benefits of control (i.e., benefits that are available only to large controlling blockholders). While some of these private benefits can be innocuous and do not necessarily affect other shareholders, blockholders can also use their control to extract significant corporate resources. These private benefits can lead to reductions in the value of the firm at the expense of minority sharehold-

ers (Denis and McConell, 2003). In Indonesia there are at least four key governance structures that are believed to facilitate minority shareholders expropriation.

First, large family-based corporations have historically held and still currently hold dominant positions in Indonesia. Family control can potentially improve firm performance due to the family's long-term perspectives and significant investment tied up in the firm (Anderson and Reeb, 2004). However, corporate ownership structures characterized by significant family control and interlocking shareholdings among affiliated firms may leave insiders with excessive power to pursue their own interests at the expense of minority shareholders, creditors and other stakeholders. High concentrations of ownership reduce the effectiveness of some important mechanisms of shareholder protection, such as the system of boards of directors, shareholder participation through voting during shareholder meetings, and transparency and disclosure. It may also have been one of the major sources of resistance to any reform initiatives in these areas (Capulong *et al.* 2000).

Second, many Indonesian firms belong to business groups known as conglomerates. Relative to independent firms, group structures are associated with greater use of internal factor markets. Through their internal financial markets, groups may allocate capital among firms within the group, which can lead to economic benefits, especially when external financing is scarce, and uncertain (Khanna and Palepu, 1997). On the negative side, however, business group structures can simply facilitate a controlling shareholder to transfer resources from one firm to another firm or other firms within the group for their own benefit. Examples of such self-dealing transactions include theft or fraud, transfer pricing that is advantageous to controlling shareholders, excessive executive compensation, loan guarantees and expropriation of corporate opportunities (Johnson *et al.* 2000). Using a sample of

18,600 Indian firms during the period 1989–1999, Bertrand *et al.* (2002) find that the ultimate owners of pyramid structures in India have strong incentives to divert resources from firms low down in the pyramid towards those higher up in the pyramid.

Third, as shown in Claessens *et al.* (2000), many controlling shareholders of listed firms in Indonesia have voting power over firms that exceed their cash flow rights. This discrepancy in cash flow rights and voting rights can create severe agency problems between controlling and minority shareholders, since it provides the former group with substantial power over important strategic decisions while enabling them to avoid the full cost of any negative outcomes. This entrenchment problem created by the controlling owner is similar to the managerial entrenchment problem discussed by Morck *et al.* (1988). Higher managerial ownership may entrench managers, as they are increasingly less subject to governance by boards of directors and to discipline by the market for corporate control. Separation between ownership rights and control rights can exacerbate the entrenchment problems raised by concentrated ownership. To consolidate control, stock pyramids or cross shareholdings can be used, which lower the cash-flow investment needed. A controlling owner in this situation can extract wealth from the firm, receive most of the benefit and only bear a fraction of the cost through a lower valuation of his/her cash-flow ownership.

Fourth, political connections play an important role in driving resource misallocation. Fisman (2001) claims that in Indonesia, political connectedness rather than fundamentals such as productivity are the primary determinant of profitability, which leads to distorted investment decision making. He also argues that well-connected firms may not earn higher profits, even though they might be receiving significant political rents. This is because the resources they may be required to devote to rent-seeking activities are quite considerable.

In short, a fundamental corporate governance problem in Indonesia is how to improve investor protection and protect minority shareholders from expropriation by controlling shareholders. Most of the reform measures appear to have focused on addressing this problem. The areas in which Indonesia introduced extensive reform measures include (Nam and Nam, 2004):

- Improving the quality of information that management is required to provide to all shareholders and the general public;

- Enhancing minority shareholders' participation in corporate decision making;

- Making boards of directors more effective and more independent of management, and;

- Reducing the likelihood of related-party transactions that would hurt minority shareholders

In line with the objectives of corporate governance reforms explained above, the Indonesian Capital Market Supervisory Agency (BAPEPAM) and the JSX have issued numerous rules and regulations. In 2000, BAPEPAM issued Circular Letter No. 03/2000, requiring publicly listed companies to set up audit committees and to have an independent commissioner. This circular letter was supported by the JSX Decree No. 315/2000 concerning listing requirements, wherein it requires companies on the JSX to have an independent commissioner, an audit committee, and a corporate secretary.

In March 2000, the National Committee for Corporate Governance (NCCG) which was established on 9 August 1999 issued the Indonesian Code of Corporate Governance. This code contains 13 areas adopted from the OECD Principles of Corporate Governance, and they include:

- maximizing corporate and shareholder value by enhancing transparency, accountability, reliability, responsibility, and fairness, in order to strengthen the company's

competitive position both domestically and internationally, and to create a sound environment to support investment;

- encouraging the management of the company to behave in a professional, transparent, and efficient manner, as well as optimizing and enhancing the independence of the Board of Commissioners, the Board of Directors, and the General Meeting of Shareholders; and

- encouraging shareholders and members of the Boards to make decisions and to act with a strict sense of morality, in compliance with the prevailing regulations having the force of law, and in accordance with their social responsibility towards the various stakeholders and the protection of the environment.

While the Indonesian government has introduced a range of corporate governance reforms since the onset of the Asian crisis in 1997, there have been serious problems with the implementation and enforcement of these reforms. What appears to be emerging in Indonesia is a corporate governance system that resembles the outsider model of corporate governance in form but not in substance (Roser, 2003).It's also been claimed by numerous authors (e.g., Kamal, 2008; Hill, 2005; Daniel, 2003) that implementation of good corporate governance which was adopted from foreign cultures will not achieve success since these governance mechanisms have been built up in totally different cultural environments. Foreign corporate governance works well in western countries precisely because they have strong legal investor protection and the principles of corporate governance are part of their legal culture. In contrast, Indonesia has weak legal investor protection (La Porta *et al.* 2000). The implementation of the corporate governance mechanisms among listed companies in Indonesia faces many seemingly insurmountable problems which primarily arise from concentrations of ownership, pyramid structures of group companies, cross share-

holdings, corruption, and cronyism. These characteristics are found in most listed companies in Indonesia and they have become something akin to a unique "culture" for these companies (Daniel, 2003).

In short, the corporate governance reforms adopted by Indonesia may not be effective precisely because of issues related to legal transplantation. This suggests that the negative impact of family control, firm's affiliation to business groups, the divergence between cash flow and control rights, and the culture of political connections might still persist despite the introduction of corporate governance reforms aimed at alleviating some of the Type II agency problems.

2. Indonesian board systems and its reform

In contrast to the unitary board of directors' model practiced by companies under the common law system, Indonesia practices a two-tier board of directors system whereby corporations comprise both a board of commissioners and a board of directors. The board of commissioners performs the firms' supervisory and advisory roles, while the board of directors performs the firms' executive roles. With respect to publically listed companies (PT Tbk), Indonesian company law requires such companies to have at least two directors and at least two commissioners.

While conceptually having a two-tier governance structure should enhance shareholder' oversight over management, it is debatable whether this type of board regime is effective among listed firms in Indonesia. Kurniawan and Indriantoro (2001) argue that boards of commissioners have often been regarded as ineffective due to a lack of competence among board members, who also fail to maintain independence and integrity. In a number of instances, members of the boards of commissioners are appointed due to their close relationship with family shareholders or due to their previous high position(s) in the Indonesian bureaucracy.

In the wake of the Asian financial crisis, it became apparent that in many companies boards of commissioners did not function according to the relevant laws as well as the spirit of those laws. Boards of commissioners should represent shareholders and the primary boards' objective is to make decisions that are in the best interests of the corporation and its shareholders. In reality, however, boards work primarily in the interests of dominant shareholders and frequently make decisions that are detrimental to the interests of minority shareholders and to the firm itself. Following the economic crisis, Indonesia had introduced an extensive set of reform measures to make boards more responsible and effective (Nam and Nam, 2004).

The appointment of independent commissioners is a key reform measure that is expected to strengthen the independence of boards and make them more effective in pursuing the interests of firms and all shareholders, especially minority shareholders, instead of merely the interests of dominant shareholders. In 2000, the JSX issued Decree No. 315/2000 concerning listing requirements, wherein listed companies on the JSX were required to appoint independent commissioners. The proportion of independent commissioners must be in line with the proportion of shares held by non-controlling, or public shareholders, subject to the requirement that the number of independent commissioners must not be less than 30 per cent of all members of the board of commissioners. The JSX rule defines independent commissioners as members of the board of commissioners who are not affiliated with the controlling shareholders and/or other commissioners and/or directors, and who are not serving concurrently as a director in another affiliated company, and are appointed in a general meeting of shareholders by the public shareholders.

The concept of independent commissioners in Indonesia is closely related to the concept of outside directors in the US. Exist-ing empirical studies of U.S. firms related to the effectiveness of outside directors show inconclusive results. On the one hand, Rosenstein and Wyatt (1990) show that the appointment of outside directors is positively related to stock price reactions. In contrast, other studies such as Hermalin and Weisbach (1991), Mehran (1995), Yermack (1996), Klein (1998), and Dalton, Daily, Ellstand, and Johnson (1998) find no association between the presence of outside directors and firm performance. Agrawal and Knoeber (1996) even report that firm performance is negatively related to the percentage of outsiders on the board, with the implication that boards are not optimally constructed to maximize firm value. Evidence regarding the effectiveness of boards of directors elsewhere in the world is also mixed (Denis and McConell, 2003).

Fitzpatrick (2000) questions the effectiveness of having independent commissioners in Indonesia. Even in the United States, from where the concept has originated, outside directors often fail to protect shareholders. More specifically, Fitzpatrick argues that crony capitalism in Indonesia, including the dominance of corporate insiders (i.e., the family), corruption, connections between corporate insiders to the dominant political elite, an unreliable judiciary, and the appointment of commissioners based on cronyism appears to constitute a fundamental obstacle to the effective involvement of independent commissioners. He also argues that the concept of outside directors evolved in the United States as a means to combat a basic problem of the separation of ownership and control (i.e., Agency Problem I), which is different to the nature of Agency Problem II that is prevalent in Indonesia (i.e., conflicts of interest between controlling shareholders and minority shareholders). Accordingly if Fitzpatrick's argument holds, then the presence of independent commissioners among listed firms in Indonesia will not affect firm performance.

SAMPLE, DATA, AND VARIABLES

The sampling frame comprised the population (N=265) of companies listed on the Jakarta Stock Exchange (JSX) in 2000. Of the total number of companies, 70 were financial firms. These firms were excluded from the sample due to their regulatory structure. Since we focus on corporate governance reforms and its implications, we exclude 5 firms that were only listed during the pre-reform period (1993–1999) and 10 firms that were only listed in 2000, bringing the final sample down to 180 firms or 2,636 firm-year observations[3].

Corporate governance data such as board size and financial data are obtained from the Indonesian Capital Market Directory, while share price data are collected from Data stream. We use annual reports to identify independent commissioners and to obtain data missing from the Indonesian Capital Market Directory. To identify family control, business group affiliation, cash flow right and control rights, we rely on Claessens *et al.* (2000) procedures and obtain data from Conglomeration Indonesia 1998 published by Pusat Data Bisnis Indonesia. Conglomeration Indonesia provides information on group affiliations as well as the identity of ultimate owners of publically listed firms in Indonesia. Information from Conglomeration Indonesia also assisted us in our calculations of cash flow and control rights.

Data from 1993 to 2007 covers both the pre- and post-governance reform periods to assess the relationship between operating performance (i.e., ROA, Tobin's Q, and hold and buy monthly share returns), key ownership structure variables (i.e. family control, divergence between control and cash flow rights, and firm's association with business group) and corporate governance variables (i.e., independence of the board of commissioners and firm's political connection). By collecting data

from the post-reform period (i.e., 2001-2007), we are able to examine the impact of overall corporate governance reforms on key ownership structure and governance problems by comparing results from the pre-reform period (i.e., 1993-1999). As discussed above, the year 2000 was a seminal year in terms of corporate governance reforms in Indonesia, that is, major corporate governance reforms and the Jakarta Stock Exchange (JSX) rules related to the independence of the board of commissioners were mostly issued and enacted in 2000. We thus use this year as the structural breakpoint for our two sub-periods to assess corporate governance reforms in Indonesia.

Since research data contain annual information of several companies over multiple years from 1993 to 2007, we employ panel data regression techniques. While some key explanatory variables in this study can be construed as time-invariant, for example, families are classified long-term large shareholders as they maintain control of their firms over long periods, we nonetheless assume the 180 firms included in our sample have a common mean value and that individual differences in the intercept values of each firm are reflected in the error term ε_{it} (Baum,2006). To measure the impact of firm specific characteristics such as the divergence between control and cash flow rights, family control, firm's association with business group, leverage, firm size, and firm age, a random effect estimator was used in this study[4].Accordingly the random effect regression equation takes the following form:

Operating Performance$_{it}$ = β_0 + β_1 Key Ownership StructureVariables$_i$ + β_2 Key Governance Variables$_i$ + β_3 Firm Age$_{it}$ + β_4 Firm Size$_{it}$ + β_5 Leverage $_{it}$ + β_6 Sales Growth$_{it}$ + β_7 Capital Expenditure$_{it}$ + β_8Risk$_{it}$ + β_9Industry Dummy$_{it}$ + β_{10}Year Dummies + ε_{it} (1)

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[3] As we have an unbalanced panel data set, our number of firm-year observations differs from the number of firms we observe over the 15 year period, particularly in the panel study regression models.

[4] Both the Breusch and Pagan Lagrangian multiplier test for random effects and a Hausman test indicate that use of the random effect estimator is appropriate in this study.

Researchers usually use two types of performance measures to gauge firm performance, namely, accounting performance measures such as return on assets (ROA), return on sales (ROS), and return on equity (ROE) (e.g., Bhagat and Bolton, 2009; Fan, Wang, and Zhang, 2007; Grullon *et al.* 2005), and; stock performance measures such as stock returns (e.g., Fan, Wang, and Zhang, 2007).As no single measure is perfect and each type of performance measures' measurement error might attenuate the results, we use both accounting performance measures and stock performance measures. Consistent with Bhagat and Bolton (2009) we use ROA, defined as operating income before depreciation (EBITDA) scaled by the book-value of total assets, as our primary measure of operating performance. In supplementary tests, we use both Tobin's Q and the hold and buy monthly stock return as the alternative measures of stock performance (see Fan, Wang, and Zhang, 2007). In this study, we define Tobin's Q as the market value of equity + book assets-book value of equity divided (scaled) by book assets.

This study considers four key ownership structure (explanatory) variables: family control, divergence between cash flow and control rights, and firm's association with a business group, and three key corporate governance (explanatory) variables: board independence, board size, and firm's political connection. If the corporate governance reforms in Indonesia are ineffective, the impact of key explanatory variables (i.e. family control, the divergence between cash flow and control rights, business group affiliation, board independence, board size, and political connection) on operating performance should be negative for both the pre- (1993-1999) and post-governance reform periods (2001-2007). In addition, if compliance to the regulation is only in form but not in substance we would then expect to find no relationship, or even a negative relationship, between operating performance and board characteristics (i.e., board size and board independence).

Firms are classified as family controlled if one family has more than 20% of the control rights. Thus family control is measured using a dummy variable with the value of 1 if the firm(s) is controlled by a family and 0 otherwise. The method to calculate cash flow and control rights are explained in Claessens *et al.* (2000). Their calculation of cash flow and control rights is augmented by an example, where a family owns 11% of the stock of publicly traded Firm A, which in turn has 21 per cent of the stock in Firm B. Claessens *et al.* (2000) assume there are no deviations from one-share one-vote or cross-holdings between firms A and B. In this case, the family owns about 2 per cent of the cash-flow rights of Firm B, or the product of the two ownership stakes along the chain. The disparity between cash flow and control rights is measured by using a dummy variable where the value of 1 is if the control right exceeds cash flow rights, and 0 otherwise.

The firm's group affiliation is identified by using Conglomeration Indonesia 1998, which is published by Pusat Data Bisnis Indonesia. The publication provides the list of top 300 business groups in Indonesia. Members of the business groups are not only listed firms but also private firms in Indonesia. The business group variable takes the value of 1 if one particular firm belongs to one group and 0 otherwise.

Board independence is measured in two ways. First, following previous studies (e.g., Denis and McConell, 2003; Agrawal and Knoeber, 1996; Hermalin and Weisbach, 1991), we use the proportion of independent commissioners based on the total number of board of commissioners. Second, we measure board independence in terms of their compliance with JSX rules related to the independence of commissioners. Firms are classified as compliant if the proportion of their independent commissioners is no less than 30 per cent, as required in the regulation. Board size is

calculated as the log of the total number of board members and board commissioners.

The definition and data on political connections are obtained from Fisman (2001). As a measure of political connections, Fisman used the Suharto Dependency Index (1995) developed by the Castle Group, a leading economic consulting firm in Jakarta.

Following previous research (e.g., Bhagat and Bolton, 2009; DeJong *et al.* 2005; Joh, 2003; Claessens *et al*. 2002), we employ the following control variables: firm age, firm size, leverage, sales growth, capital expenditure, risk, industry dummies and year dummies. Firm age is measured as the natural log of the number of years since the firm's inception while firm size is the natural log of the book value of total assets. Firm growth is measured as sales growth and capital expenditure is scaled by total sales. We control for debt in the capital structure by dividing total debt by total assets.

RESULTS

Descriptive Results

Table 1 presents summary statistics for the variables used in the regression models. The table is partitioned into three separate sections in which Panel A provides statistics for the overall 15 year period, Panel B for the pre-form period 1993-1999, Panel C for the post-reform period 2001-2007, and Panel D provides a distribution breakdown of family control, divergence between control and cash flow rights, group affiliation, state-owned enterprises, political connection, and independent commissioners. Indeed Panel D shows that approximately 75 per cent of the firms in the sample are family controlled, 49 per cent of the firms' have substantial shareholders' whose control rights exceeds their cash flow

rights, over 73 percent of the firms are affiliated to a group or conglomeration, around 5 per cent of firms are state-owned enterprises, approximately 25 per cent are politically affiliated, and 10 per cent of firms are compliant with the board of commissioner regulations.

Table 2 reports univariate statistics on both the accounting and stock performance measures for the overall sample period as well as the pre- and the post-reform periods. In terms of operating performance, family controlled firms in Indonesia seem to significantly underperform their non-family controlled counterparts. This is further corroborated by analysis on the divergence between control and cash flow rights, which shows that family controlled firms significantly underperform their non-family controlled counterparts. Interestingly, firms with political connections appear to only significantly underperform during the pre-reform period compared to firms that do not have political connections, whereas this statistical difference between these two groups disappears during the post-reform period suggesting that corporate governance reforms appear to have had an effect on Type II agency problems.

Table 3 reports Pearson and Spearman rank correlation coefficients between ROA1 and key ownership structure, governance, and control variables. Both Pearson and Spearman rank correlation coefficients show that ROA1 is negatively correlated with family control (DFB), divergence between cash flow and control rights (DWED), firm's business affiliation (DBG2), and board independence (BIND2) at the 1% significance level consistent with previous studies (e.g., Claessens *et al*. 2000), but positively correlated with control rights (CON1), cash flow rights (CAS1), and board size (LBS) at the 1% significance level.

Table 1. Descriptive Statistics

Panel A: 1993 to 2007	Mean	SD	Min	Max
ROA	.0778479	.08718	-.1750057	.4286571
Returns	.3640161	1.690404	-.9208333	32.97282
Tobin's Q	.888101	.5333682	.1189418	4.118453
Family Control	.7515175	.432215	0	1
Control Rights	43.77147	16.93409	6	82
Cash Flow Rights	35.95244	19.17497	4	79.96
Ratio of Divergence Control-Cash Flow Rights	1.467607	.9559736	1	8
Business Affiliation	.7325493	.4427134	0	1
Board Independence	.0923441	.096873	0	.5
Board Size	2.162539	.321658	1.098612	3.091043
Political Connection	.2465857	.4311052	0	1
Firm Age	3.111528	.5040041	1.098612	4.663439
Firm Size	13.35483	1.525947	8.67163	18.2229
Firm Growth	.1411078	.4266143	-6.069752	2.272817
Debt	.5862215	.2737975	.0199231	.9995009
Panel B: 1993 to 1999	**Mean**	**SD**	**Min**	**Max**
ROA	.0901531	.0811335	-.1705405	.4286571
Returns	.4844445	2.114978	-.9166667	32.97282
Tobin's Q	.8162088	.4936268	.1195983	3.936073
Family Control	.7489813	.4337761	0	1
Control Rights	43.5863	16.78547	6	82
Cash Flow Rights	35.67842	18.99229	4	79.96
Ratio of Divergence Control-Cash Flow Rights	1.474843	.9678693	1	8
Business Affiliation	.7367563	.4405731	0	1
Board Independence	.024662	.0569944	0	.333
Board Size	2.176408	.2965799	1.386294	3.091043
Political Connection	.2502037	.4333069	0	1
Firm Age	2.919094	.5441891	1.098612	4.584968
Firm Size	12.95044	1.467061	8.67163	17.62299
Firm Growth	.1946414	.4483399	-2.830747	2.272817
Debt	.5441333	.2738238	.020472	.9995009
Panel C: 2001 to 2007	**Mean**	**SD**	**Min**	**Max**
ROA	.0648647	.0908559	-.1750057	.4269786
Returns	.3373687	1.253044	-.9208333	24.70379
Tobin's Q	.9251654	.5572806	.1189418	4.118453
Family Control	.7540717	.4308117	0	1
Control Rights	43.93489	17.07161	6	82
Cash Flow Rights	36.19539	19.34416	4	79.96
Ratio of Divergence Control-Cash Flow Rights	1.461067	.9443373	1	8
Business Affiliation	.7288274	.4447461	0	1
Board Independence	.1624145	.079771	0	.5

Table 1. Descriptive Statistics (continued)

Board Size		2.150591	.3422286	1.098612	3.091043
Political Connection		.242671	.4288724	0	1
Firm Age		3.301208	.3861214	2.397895	4.663439
Firm Size		13.71607	1.499892	10.08926	18.22295
Firm Growth		.0839366	.414938	-6.069752	1.935932
Debt		.609719	.2692682	.0199231	.9968502

Panel D: Frequency Tables		No. of Firms	Overall %	No. of Firms	Between%
Family Control					
0		655	24.85	46	25.27
1		1981	75.15	136	74.73
	Total:	2636	100.00	182	100.00
Divergence Control-Cash Flow Rights					
0		1344	50.99	94	51.65
1		1292	49.01	88	48.35
	Total:		100.00	182	100.00
Group Affiliation					
0		705	26.75	49	26.92
1		1931	73.25	133	73.08
	Total:	2636	100.00	182	100.00
State-Owned Enterprise					
0		2504	94.99	173	95.05
1		132	5.01	9	4.59
	Total:	2636	100.00	182	100.00
Political Connection					
0		1986	75.34	137	75.27
1		650	24.66	45	24.73
	Total:	2636	100.00	182	100.00
Independent Commissioner					
0		2565	97.34	182	100.00
1		70	2.66	19	10.44
	Total:	2636	100.00	201	110.44

Table 2. Univariate Statistics

	Family Control			
	Family	Non-Family	Difference	t-Statistic
ROA (Overall)	.0714045	.097927	.0265225	6.6894[***]
ROA (Pre-Reform)	.0837679	.1054281	.0216601	4.2392[***]
ROA (Post-Reform)	.0571505	.0891281	.0319776	5.2698[***]
Tobin's Q (Overall)	.90248	.8441977	-.0582823	-2.3977[**]
Tobin's Q (Pre-Reform)	.8669415	.8228998	-.0440417	-1.3898
Tobin's Q (Post-Reform)	.9433531	.8691176	-.0742355	-1.9871[*]
Returns (Overall)	.345902	.4167452	.0708431	0.8737
Returns (Pre-Reform)	.36563	.4576249	.0919949	0.6810
Returns (Post-Reform)	.3257044	.3723615	.0466571	0.5394

Table 2. Univariate Statistics (continued)

	Divergence Control-Cash Flow Rights			
	Yes	No	Difference	t-Statistic
ROA (Overall)	.067091	.0881885	.0210975	6.1951***
ROA (Pre-Reform)	.0779254	.0999916	.0220662	5.0378***
ROA (Post-Reform)	.0542579	.0748193	.0205614	3.9382***
Tobin's Q (Overall)	.8653424	.9099285	.0445862	2.1265*
Tobin's Q (Pre-Reform)	.8263705	.8848073	.0584369	2.1363*
Tobin's Q (Post-Reform)	.910999	.9385512	.0275522	0.8559
Returns (Overall)	.3643837	.3636673	-.0007164	-0.0101
Returns (Pre-Reform)	.3519074	.42625525	.0743478	0.6263
Returns (Post-Reform)	.377647	.3000021	-.0776449	-1.0362
	State-Owned Enterprise			
	Yes	No	Difference	t-Statistic
ROA (Overall)	.1046768	.0764387	-.0282381	-3.5941***
ROA (Pre-Reform)	.097764	.0885994	-.0091646	-0.9081
ROA (Post-Reform)	.1128784	.0623776	-.0505008	-4.1917***
Tobin's Q (Overall)	.8696756	.8890526	.019377	0.3992
Tobin's Q (Pre-Reform)	.8673372	.8554262	-.011911	-0.1878
Tobin's Q (Post-Reform)	.8723708	.9278954	.0555246	0.7461
Returns (Overall)	.3990687	.3621746	-.0368941	-0.2271
Returns (Pre-Reform)	.164157	.4014816	.2373245	0.8703
Returns (Post-Reform)	.6423701	.321316	-.3210541	-1.8709*
	Business Affiliation			
	Yes	No	Difference	t-Statistic
ROA (Overall)	.0730621	.0914991	.018437	4.7333***
ROA (Pre-Reform)	.0819625	.1097003	.0277378	5.5376***
ROA (Post-Reform)	.062648	.0710516	.0084036	1.4114
Tobin's Q (Overall)	.9135373	.8180679	-.0954694	-4.0360***
Tobin's Q (Pre-Reform)	.8699669	.8172598	-.0527071	-1.6995*
Tobin's Q (Post-Reform)	.9641049	.818989	-.1451159	-4.0221***
Returns (Overall)	.3800114	.3211815	-.0588299	-0.7400
Returns (Pre-Reform)	.4002513	.3608495	-.0394018	-0.2943
Returns (Post-Reform)	.3587994	.2808696	-.0779298	-0.929
	Political Connections			
	Yes	No	Difference	t-Statistic
ROA (Overall)	.0742162	.0790379	.0048217	1.2125
ROA (Pre-Reform)	.0804242	.0919551	.0115309	2.2662*
ROA (Post-Reform)	.0667667	.0642572	-.0025095	-0.4093
Tobin's Q (Overall)	.8605405	.8971087	.0365682	1.5026
Tobin's Q (Pre-Reform)	.858019	.8553424	-.0026766	-0.0846
Tobin's Q (Post-Reform)	.8635385	.9448942	.0813556	2.1708*
Returns (Overall)	.4791466	.3277602	-.1513864	-1.8275*
Returns (Pre-Reform)	.4167277	.381041	-.0356866	-0.2573
Returns (Post-Reform)	.5450853	.2726701	-.2724153	-3.1081**

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 3. Correlations

Panel A: Pearson's Correlation

	ROA1	DFB	CON1	CAS1	DWED	DBG2	BIND2	LBS	DPOL	LFA	FS1	LSG	LV1
ROA1	1.0000												
DFB	-0.1365	1.0000											
CON1	0.0530	0.2800	1.0000										
CAS1	0.1014	0.0554	0.8134	1.0000									
DWED	-0.1248	0.3878	-0.0791	-0.4838	1.0000								
DBG2	-0.0968	0.3325	-0.1511	-0.2883	0.3206	1.0000							
BIND2	-0.1028	0.0425	0.0382	0.0315	0.0032	0.0052	1.0000						
LBS	0.1472	-0.0553	-0.2088	-0.2229	0.1064	0.0970	-0.0899	1.0000					
DPOL	-0.0265	0.2074	-0.0349	-0.2579	0.3901	0.3193	0.0122	0.3393	1.0000				
LFA	0.1324	-0.1319	0.1155	0.0491	0.0309	-0.0807	0.2848	0.0534	-0.0113	1.0000			
FS1	0.0008	0.0412	-0.1243	-0.1411	0.1041	0.1855	0.1633	0.5087	0.3367	0.1474	1.0000		
LSG	0.2435	0.0240	0.0035	-0.0001	0.0110	0.0103	-0.0808	0.0476	0.0177	-0.0140	0.0611	1.0000	
LV1	-0.4446	0.0901	-0.0013	-0.0510	0.1018	0.0655	0.0754	-0.0327	0.0346	0.0015	0.1584	-0.0495	1.0000

Panel B. Spearman Rank Correlation

	ROA1	DFB	CON1	CAS1	DWED	DBG2	BIND2	LBS	DPOL	LFA	FS1	LSG	LV1
ROA1	1.0000												
DFB	-0.1028	1.0000											
CON1	0.0335	0.2462	1.0000										
CAS1	0.0923	0.0529	0.7835	1.0000									
DWED	-0.1066	0.3878	-0.0956	-0.4781	1.0000								
DBG2	-0.0614	0.3325	-0.1487	-0.2415	0.3206	1.0000							
BIND2	-0.1162	0.0448	0.0485	0.0317	-0.0047	0.0043	1.0000						
LBS	0.1234	-0.0695	-0.1729	-0.1754	0.0972	0.0885	-0.0901	1.0000					
DPOL	-0.0291	0.2074	-0.0331	-0.2392	0.3901	0.3193	0.0015	0.3018	1.0000				
LFA	0.0635	-0.1322	0.1087	0.0622	0.0030	-0.0859	0.3045	0.0646	-0.0384	1.0000			
FS1	-0.0355	0.0570	-0.1209	-0.1106	0.1187	0.2050	0.1539	0.4731	0.3293	0.1439	1.0000		
LSG	0.3296	0.0047	-0.0098	-0.0034	0.0043	0.0274	-0.1102	0.0585	0.0227	-0.0206	0.0593	1.0000	
LV1	-0.4684	0.0868	-0.0136	-0.0704	0.0998	0.0661	0.0648	-0.0326	0.0322	0.0092	0.1881	-0.0844	1.0000

2. Panel Regression Models

We study the relationships between operating performance and key ownership and corporate governance variables, especially the disparity between cash flow and control right, firm's business group affiliation, political connection and family control, during the entire period from 1993-2007. We explicitly separate the sample period into pre-reform (1993-1999) and post-reform (2001-2007) sub-periods to focus on the effects of the regulation.

Table 4 shows results of three regression models, that is, the first model examines the pre-reform period, the second the post-reform period and the third assesses coefficients for entire sample period (1993–2007), which covers both the pre and post-reform periods. The purpose of the first two regression models are to compare whether the relationship between key ownership structure variables and operating performance changed significantly from the pre- to the post-reform period. To formally test for changes over time between pre-reform and post reform periods, the third regression model includes an interaction variable between the divergence between cash flow and control rights and a dummy variable that distinguishes between reform periods, that is, 1 equals post-reform period and 0 otherwise. Several different regression models are estimated and presented in Panels A, B, C, and D of Table 4 respectively, namely, the disparity between cash flow and control rights, business group affiliation, political connection and family control.

Table 4. (Panel A). Random Effects Regression Models

	Pre-reform Period (Model #1)	Post-reform Period (Model #2)	Entire Period (Model #3)
Cash flow rights	0.000445*	0.000288	0.000391*
	(2.12)	(1.20)	(2.18)
Wedge Between Cash flow and Control Rights	-0.0181*	-0.00940	-0.0187*
	(-2.23)	(-0.99)	(-2.51)
Wedge Between Cash flow and Control Rights * Reform dummy			0.0116*
			(2.34)
Firm Age	0.0162*	0.0286**	0.0189**
	(2.33)	(2.61)	(2.93)
Firm size	0.0149***	0.0181***	0.0200***
	(6.04)	(7.74)	(12.23)
Leverage	-0.112***	-0.103***	-0.117***
	(-10.07)	(-10.36)	(-17.06)
Sales Growth	0.0342***	0.0161***	0.0266***
	(6.70)	(3.56)	(7.72)
Capital Expenditure	-0.00000158	-0.0000179	-0.000000954
	(-0.58)	(-1.10)	(-0.36)
Firm risk	-0.00394	-0.00831	-0.00416
	(-0.47)	(-0.64)	(-0.60)
Industry dummies	Yes	Yes	
Year dummies	Yes	Yes	
N	973	1094	2224

t statistics in parentheses
$^*p< 0.05,$ $^{**}p< 0.01,$ $^{***}p< 0.001$

Table 4. (Panel B). Random Effects Regression Models

	Pre-reform Period (Model #1)	Post-reform Period (Model #2)	Entire Period (Model #3)
Business group	-0.0408***	-0.0141	-0.0414***
	(-4.60)	(-1.39)	(-5.16)
Business group * Reformed Dummy			0.0266***
			(4.75)
Firm Age	0.0119	0.0266*	0.0148*
	(1.72)	(2.41)	(2.29)
Firm size	0.0161***	0.0181***	0.0203***
	(6.40)	(7.67)	(12.40)
Leverage	-0.113***	-0.103***	-0.118***
	(-10.14)	(-10.37)	(-17.20)
Sales Growth	0.0342***	0.0161***	0.0267***
	(6.73)	(3.53)	(7.80)
Capital Expenditure	-0.00000176	-0.0000179	-0.00000104
	(-0.65)	(-1.10)	(-0.40)
Firm risk	-0.00305	-0.00887	-0.00333
	(-0.37)	(-0.68)	(-0.49)
Industry dummies	Yes	Yes	(2.20)
Year dummies	Yes	Yes	
N	973	1094	2224

t statistics in parentheses.   *$p< 0.05$, **$p< 0.01$, ***$p< 0.001$

Table 4. (Panel C). Random Effects Regression Models

	Pre-reform Period (Model #1)	Post-reform Period (Model #2)	Entire Period (Model #3)
Political connection	-0.0233*	-0.0128	-0.0262**
	(-2.53)	(-1.25)	(-3.22)
Political connection * Reformed Dummy			0.0123*
			(2.14)
Firm Age	0.0152*	0.0282*	0.0180**
	(2.13)	(2.58)	(2.78)
Firm size	0.0159***	0.0184***	0.0203***
	(6.04)	(7.57)	(12.04)
Leverage	-0.113***	-0.103***	-0.116***
	(-10.08)	(-10.47)	(-16.93)
Sales Growth	0.0338***	0.0161***	0.0263***
	(6.60)	(3.55)	(7.61)
Capital Expenditure	-0.00000159	-0.0000179	-0.000000907
	(-0.58)	(-1.10)	(-0.34)
Firm risk	-0.00381	-0.00871	-0.00415
	(-0.46)	(-0.67)	(-0.60)
Industry dummies	Yes	Yes	
Year dummies	Yes	Yes	
N	973	1094	2224

t statistics in parentheses.   *$p< 0.05$, **$p< 0.01$, ***$p< 0.001$

Table 4. (Panel D). Random Effects Regression Models

	Pre-reform Period (Model #1)	Post-reform Period (Model #2)	Entire Period (Model #3)
Family Control	-0.0259**	-0.0262**	-0.0241**
	(-2.94)	(-2.58)	(-2.99)
Family Control * Reformed Dummy			-0.000210
			(-0.04)
Firm Age	0.0112	0.0218	0.0141*
	(1.56)	(1.95)	(2.14)
Firm size	0.0137***	0.0176***	0.0191***
	(5.58)	(7.60)	(11.78)
Leverage	-0.114***	-0.101***	-0.116***
	(-10.17)	(-10.27)	(-16.86)
Sales Growth	0.0360***	0.0164***	0.0271***
	(7.04)	(3.61)	(7.87)
Capital Expenditure	-0.00000170	-0.0000170	-0.00000111
	(-0.62)	(-1.05)	(-0.42)
Firm risk	-0.00420	-0.00896	-0.00433
	(-0.50)	(-0.69)	(-0.63)
	(-0.75)		(5.46)
Industry dummies	Yes	Yes	
Year dummies	Yes	Yes	
N	973	1094	2224

t statistics in parentheses. $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Consistent with prior research (Claessens *et al.* 2002; Joh, 2003), firm age, firm size and sales growth have positive effects on operating performance, while leverage is negatively associated with firm performance. The remaining two control variables (i.e., firm risk and capital expenditure) are not significantly associated with operating performance. Results for the control variables are consistent between the pre- and post-reform periods.

The coefficient on the variable measuring divergence between cash flow and control rights in Panel A is of key interest. As expected, the coefficient estimate is negative at the 5 per cent level of significance during the pre-reform period. The result is consistent with the argument that when voting rights exceed cash flow rights, agency problems between controlling and minority shareholders become severe since controlling owner(s) are able to expropriate wealth from the firm. In other words, controlling owners receive the entire benefit of the expropriation but only bear a fraction of the cost through a lower valuation of their cash-flow ownership (Claessens *et al.* 2002).

Although the relationship between operating performance and divergence between cash flow-control rights during the post-reform period remains negative, it is not statistically significant. The interaction variable between the reform period dummy and divergence between cash flow-control rights in model # 3 is positive and statistically significant at the 5 per cent level, suggesting that the negative effect of the discrepancy between cash flow and control rights has significantly decreased during the post-reform period.

The results for the association between the firm's business group affiliation (Panel B) and

political connection (Panel C) on operating performance for the pre-reform period are similar to those for divergence between cash flow-control rights. The negative coefficient (significant at the 1 per cent level)for the firm's business group affiliation on operating performance during the pre-reform period suggests that business group affiliation is used by controlling shareholders to transfer resources between firms at the cost of minority shareholders. Similarly, the significant negative association (at the 5 per cent level) between political connection and operating performance is consistent with Fisman's (2001) argument that political rents come at a cost. Indeed, Fisman (2001) argues the resources that politically connected firms usually devote on rent-seeking activities are higher than the actual political rent the firm earns from these behaviours. Again, these behaviours come at the expense to minority shareholders.

Interestingly, the negative impact of both the firm's business group affiliation and political connection during pre-reform period disappear in the post-reform period. The interaction variables between both variables and the reform dummy variable are positive and statistically significant at the 1 per cent and 5 per cent level, respectively. Overall, the results indicate the positive effects of governance reforms in Indonesia. That is, corporate governance reforms in Indonesia have been able to decrease actions by controlling shareholders to utilize their ownership structures (i.e., divergence between cash flow and control right), organizational structures (i.e., business group), and their cronyism (i.e., political connection) to extract private benefits of control at the expense of minority and other shareholders.

Panel D of Table 4 reports the results of the impact of family control on operating performance. Although corporate governance reform has decreased the negative effects of business group affiliation, political connection and the discrepancy between cash flow and control rights, it seems that the impact of fam-

ily control has been unaffected by the reforms. The variable family control in Panel D shows negative and statistically significant coefficients at the 1 per cent level on operating performance for both the pre- and post reform periods, suggesting that despite the Indonesian corporate governance reforms substantial family shareholders are still able to expropriate wealth from minority shareholders.

Additional analyses depicted in Table 5 show that the negative association between family control and operating performance only occurs when the voting right of family shareholders exceed their cash flow rights. Model #1 shows results for firms where the family's voting rights **exceeds** their cash flow right, while Model #2 presents results where the family's voting right **equals** their cash flow rights. In Model # 1 the family control coefficient is negative and statistically significant at the 5 per cent level on operating performance when the family's voting rights exceeds their cash flow rights. In contrast, when the family's voting right equals their cash flow rights, the impact of family control on operating performance becomes non-significant (see Model # 2). This suggests that corporate governance reforms are not effective in family controlled firms when the family's voting rights exceeds their cash flow rights.

The above analysis focuses primarily on the general impact of major corporate governance reforms in Indonesia adopted since 2000. For additional and complementary analyses, the paper also studies the impact of Jakarta Stock Exchange (JSX) Decree No. 315/2000 that requires listed companies on the JSX to have an independent commissioner. The JSX requires that the proportion of independent commissioners to be in line with the proportion of shares held by non-controlling, or public, shareholders subject to the requirement that the number of independent commissioners must not be less than 30 percent of all members of the board of commissioners.

Table 5. Additional Analyses Random Effects Regression Models of Family Control and Operating Performance

	(Model # 1) Divergence Control-Cash Flow Rights	(Model # 2) Equality Control-Cash Flow Rights
Family Control	-0.0332[*]	-0.0141
	(-1.98)	(-1.33)
Firm Age	0.00377	0.0265[**]
	(0.43)	(2.62)
Firm size	0.0176[***]	0.0211[***]
	(8.02)	(8.56)
Leverage	-0.111[***]	-0.121[***]
	(-11.59)	(-12.03)
Sales Growth	0.0186[***]	0.0407[***]
	(4.48)	(6.80)
Capital Expenditure	-0.000000866	-0.00000759
	(-0.34)	(-0.41)
Firm Risk	-0.0146	-0.00138
	(-1.20)	(-0.16)
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
N	1086	1138

t statistics in parentheses
[*]$p < 0.05$, [**]$p < 0.01$, [***]$p < 0.001$

We measure the effectiveness of the independence commissioner regulation by investigating the performance effects if the firm complies with the regulation. That is, firms are classified as compliant if the proportion of their independent commissioners is no less than 30% of all members of the board of commissioners. In other words, a dummy variable is used in the regression which categorises compliant firms as 1 and 0 otherwise. Following previous studies on outside directors, we also include in the regression model a board independence ratio (i.e., the proportion of independent commissioners to total number of board of commissioners) variable to measure the impact of independent commissioners.

Table 6 reports the regression results of the effect of the independent commissioner regulation on operating performance. The dummy variable compliance with independent commission regulation coefficient is positive and statistically significant at the 5 per cent level (see Model # 1). The results suggest that companies that comply with JSX regulation related to boards of commissioners receive operating performance benefits from the monitoring role of independent commissioners. The positive and significant coefficient at the 5 per cent level for board independence also suggests that higher proportions of independent commissioners (i.e., board independence) lead to better firm operating performance.

Table 6. The impact of compliance with independent commissioner regulation on operating performance

	(Model # 1)	(Model # 2)
Board size	-0.00299	-0.00470
	(-0.43)	(-0.67)
Compliance with independent	0.0104[*]	
commissioner regulation (Dummy)	(2.44)	
Board Independence		0.0248[*]
		(2.13)
Firm Age	0.0188[**]	0.0182[**]
	(2.91)	(2.80)
Firm size	0.0194[***]	0.0195[***]
	(11.14)	(11.20)
Leverage	-0.117[***]	-0.117[***]
	(-17.01)	(-16.95)
Sales Growth	0.0270[***]	0.0268[***]
	(7.80)	(7.75)
Capital Expenditure	-0.00000109	-0.00000105
	(-0.41)	(-0.40)
Firm Risk	-0.00450	-0.00472
	(-0.65)	(-0.68)
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
N	2224	2224

t statistics in parentheses
[*]$p < 0.05$, [**]$p < 0.01$, [***]$p < 0.001$

3. Robustness Checks

We conducted several sensitivity analyses using different key variables of interest and to ensure that influential observations did not distort our results. In general, our robustness analyses suggest that the results reported above are insensitive to various alternative specifications.

We first explored alternative measures of key governance variables. For example, we use Claessens *et al*. (2002) definition of business group rather than the definition used by Conglomeration Indonesia 1998 for group affiliation. Then, we examine the disparity between cash flow and control rights measure by employing the ratio of cash flow to control rights rather than the dummy variable reported in our above regression results. In addition, we employ the percentage of share ownership by family as a proxy for family control. The results are generally consistent with our earlier analyses.

Second, we test the sensitivity of our results in the presence of outliers and influential observations by truncating the largest one and five percent levels for each tail of the distribution for the model variables. The results are generally consistent with our earlier analyses.

Third, we use market performance (i.e., Tobin Q and stock returns) instead of ROA as a performance measure. Not surprisingly, we do not find any consistent significant relation between key governance variables and stock market based measures of performance. Joh (2003) argues that developing countries (including Indonesia) generally show stock mar-

ket inefficiency and therefore, stock prices are not likely to reflect all available information. In such cases, he argues that accounting profitability is likely to be a better performance measure than stock market-based measures. It should be noted that studies based on developed economies (e.g., Bhagat and Bolton, 2008; 2009) similarly find inconsistent results when investigating the impact of governance mechanisms on market performance.

Fourth, previous research (e.g., Anderson and Reeb, 2002) suggest that the relation between family ownership and firm performance is non-linear. In order to check this non-linearity we modify our regression that measures the impact of family control on operating performance by including family ownership and the square of family ownership, as continuous variables. The impact of family control is still negative and statistically significant while the coefficient on the square of family ownership is not statistically significant. Contrary to the result found in Anderson and Reeb (2002) which is based on US data, our results indicate that the relationship between firm operating performance and family ownership is negative and linear.

CONCLUSION

Contrary to the widespread belief that corporate governance reforms in Indonesia have failed, this paper provides evidence in support of the positive impact of corporate governance reforms in Indonesia. The impact of family control, firms' business group affiliation, divergence between cash flow-control rights and political connection on operating performance are all negative for the pre-reform period (i.e., 1993-1999). The results are consistent with the view that these four governance structures are sources of Agency Problem II (i.e., expropriation of minority shareholders by controlling shareholders). Interestingly, the negative effects of these key ownership and governance problems disappear during the post-reform period (i.e., 2001 to 2007), except for family control. However, the

relationship between family control and operating performance is negative during the post-reform period only when family's control rights exceed their cash flow rights.

We also provide evidence in support of the positive impact of board independence on the firm's operating performance. Results suggest that greater board independence is associated with higher operating performance. In addition, companies that comply with the JSX rules related to independent commissioners are better performers compared to those that do not comply with the regulation. Similar to Australia, Indonesian firms operate in a voluntary corporate governance environment which suggests more successful companies in the Indonesian marketplace exposed to the global market through trade in exports and imports are more likely to adopt corporate governance reforms precisely because of either pressures from foreign investors or fierce competition that dictate greater transparency.

The results provide evidence that corporate governance mechanisms imported and transplanted from western countries with strong legal protection as a means of combating classical Agency Problem I are nonetheless still effective in reducing Agency Problem II in a weak legal investor environment such as Indonesia. Although Indonesia has weak legal investor protection (La Porta *et al.* 2000; Claessens *et al.* 2000) and it experiences higher private benefits of control, the legally transplanted corporate governance reforms appear to be addressing some of the fundamental ownership structure and governance problems identified as causes of the 1997 Asian financial crisis. More importantly, while Indonesia has introduced many of its corporate governance reforms as a condition of the financial assistance provided by the International Monetary Fund (IMF) and many corporations are still reluctant to adopt and implement these changes, the reforms appear to nonetheless have had a positive effect on the operating performances of Indonesian firms.

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APPENDIX A
Variable Description

Dependent Variables

ROA	Operating income before depreciation (EBITDA) scaled by the book-value of total assets
Returns	Hold and buy monthly stock returns
Tobin's Q	The market value of equity plus book assets-book value of equity divided by book assets

Explanatory Variables - Ownership Structure

Family Control	A binary variable that equals one if the founding family or family member or private individual controlled 20 percent or more of the control rights, zero otherwise
Control Rights	The control rights of ownership refer to an owner's ability to influence the way a firm is run. The threshold of control is defined as 20% of voting rights by the firm's substantial shareholder.
Cash-Flow Rights	The cash-flow rights of ownership refer to the fraction of the firm's profits to which an owner is entitled. It is the product of the ownership stakes along the chain.
Divergence between Cash Flow and Control Rights	Abinary variable where the value of 1 is if the control right exceeds cash flow rights, and 0 otherwise.
Business affiliation	The business group variable takes the value of 1 if one particular firm belongs to one group and 0 otherwise

Explanatory Variables - Corporate Governance

Board Independence	The proportion of independent directors on the board of commissioners
Board Size	Natural logarithm of the number of board members and board commissioners
Political Connection (Index)	Based on the Suharto Dependency Index (1995) (see Fisman, 2001, p. 1097). The index consists of a numerical rating of the degree to which each of the 25 largest industrial groups in Indonesia is dependent on political connections for its profitability. The ratings range from one (least dependent) to five (most dependent).Most of these groups have multiple companies listed on the JSX, yielding a total sample of 79 firms

Control Variables

Firm Age	The natural logarithm of the number of years since the firm's incorporation
Firm Size	The natural logarithm of the book value of total assets
Firm Growth	Sales growth and capital expenditure scaled by total
Debt	Total debt divided by total assets
Industry	
Year	