Moderating Effects of Governance Quality on the Relationship between Stock Liquidity and Dividend in Emerging Market Countries

(Kesan Penyederhanaan Kualiti Tadbir Urus dalam Hubungan antara Kecairan Stok dan Dividen dalam Negara Pesat Membangun)

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ABSTRACT

The paper examines the moderating effects of governance quality on stock liquidity and dividend relationship. Past empirical studies on the link between stock liquidity and dividend suggest there are mixed findings between them. A negative relationship suggests stock liquidity and dividend are a substitute which aligns with the liquidity hypothesis. On the other hand, a positive relationship between stock liquidity and dividend suggests stock liquidity informational effect increases a firm's incentive to pay dividends. Moderating factors could have contributed to such mixed findings. Therefore, this study suggested governance quality could be one of the moderating factors that contributed to the inconsistency findings. Governance quality has been known to mitigate information asymmetry that made firm pay more dividends by formulating and promoting sound policies. Thus, this study aimed to ascertain the moderating factors of governance quality on the relationship between stock liquidity and dividend. By using a sample from 22 emerging market countries, we adopted logistic panel random effect to estimate the model. Adopting the governance quality measurements developed by the World Bank, our empirical results found that political stability, government effectiveness, regulation quality and control of corruption are among the factors that moderated the relationship between stock liquidity and dividend.

Keywords: Stock Liquidity; dividend; governance quality; information asymmetry

ABSTRAK

Kajian ini bertujuan untuk menyiasat kesan penyederhanaan kualiti tadbir urus terhadap hubungan antara kecairan saham dan dividen. Kajian lepas terhadap hubugan antara kecairan saham dan dividen menunjukkan hubungan yang tidak konsisten. Hubungan negatif mencadangkan bahawa kecairan saham dan dividen berperanan sebagai pengganti. Manakala, hubungan positif mencadangkan bahawa kesan maklumat kecairan saham meningkatkan insentif firma untuk membayar dividen. Faktor penyederhanaan mungkin memainkan peranan bagi penemuan yang berbeza. Oleh itu, kajian ini mencadangkan kualiti tadbir urus merupakan salah satu faktor yang mendorong kepada penemuan yang tidak konsisten pada kajian lepas. Kualiti tadbir urus telah diketahui mengurangkan maklumat asimetri yang membuat firma membayar lebih dividen dengan merumuskan dan mengalakkan polisi yang lebih baik. Dengan mengunakan sampel dari dua puluh dua negara pesat membangun, kami mengunakan regresi logistik panel dengan kesan rawak untuk menganggarkan model. Mengunakan kualiti tadbir urus yang telah dibangunkan oleh bank dunia, kajian ini menemui kestabilan politik, kecekapan kerajaan, kualiti peraturan, dan kawalan rasuah merupakan antara faktor-faktor yang menyederhanakan hubungan antara kecairan saham dan dividen.

Kata kunci: Kecairan Saham; dividen, kualiti tadbir urus; maklumat asimetri

INTRODUCTION

At the end of each financial year, publicly listed firms must resolve whether profits should or should not be distributed and if so, how much of it should be in the form of dividends. Dividends are addressed by Black (1976) as a puzzle not only because of the way different dividend policies affect shareholders wealth differently but also other policies such as investment and financing. Even after more than a decade of research on dividends, the mystery of dividends remains unsolved like pieces of a puzzle that do not fit together (Baker, Powell & Veit 2002). For example, a firm that pays dividends will experience a reduction in cash and must, therefore, decide on how to finance their projects with the remaining sources of cash available. An optimal cash distribution is crucial in satisfying a shareholder's needs while making a wise investment and financing decision without jeopardizing the firm's performance. Furthermore, dividend decision is not only important among internal shareholders but also for the external stockholders. External stockholders demand firms pay dividends. As a result, a firm that pays higher dividends has higher valuation and a higher firm value. On the contrary, a firm that pays a lower dividend has a lower firm value due to the lower valuation among investors. This relationship is explained by the dividend signalling theory. Among the dividend puzzle, stock liquidity effect on dividend policy has received limited attention until the late 2000s. The relationship between stock liquidity and dividend was originally investigated by Banerjee, Gatchev and Spindt (2007) where they suggested stock liquidity and dividend are in fact substitutes for each other. This idea of the substitution effect between stock liquidity and dividend is derived from Miller and Modigliani (1961) irrelevance theory of dividend. According to the liquidity hypothesis, liquidity enables a homemade dividend to be created at no cost. In the real world, the cost of trading known as friction has always existed but rational investors still demand homemade dividend over dividend if the friction cost is lower and vice versa. This proposition supports the substitution effect between stock liquidity and dividend.

However, Jiang, Ma and Shi (2017) recently argued that the substitution effect neglects the informational effect brought on by stock liquidity. In general, the higher the liquidity of the stock, the greater the availability of stocks in the stock market. In other words, the different pricing range of stocks at different magnitudes will be available to meet the investors' demands. Therefore, the more the pricing ranges are available in the stock market, the more the information about the firm is for the investors because each stock price contains unique information about the firm's performance (Holmstrom & Tirole 1993). Furthermore, according to the microstructure literature, as market liquidity increases, information asymmetry reduces (Kanagaretnam, Lobo & Whalen 2007). Simply put, stock liquidity generates information that reduces information asymmetry and increases transparency. Under the condition of low transparency, tunnelling incentives among insiders are likely to be riskier. Thus, it can be surmised that stock liquidity has the properties of reducing information asymmetry. The reduction of information asymmetry also means the transparency of the firm's information has been increased making any tunnelling activities that are legally riskier easily identifiable (Petrasek 2012; Li & Zhao 2008). In addition, keeping a surplus of retained earnings instead of allocating to external investor damages a firm's reputation (Gomes 2000). Therefore, the net benefit of paying dividends will increase with better stock liquidity (La Porta et al. 2000).

However, past literature on stock liquidity and dividend relationship has provide mixed results, suggesting that empirical evidences on this relationship are inconclusive and may derived by moderating factors. The moderating factors can be in the form of environmental setting or structure of the organization. This study specifically suggests setting governance quality will moderate the relationship between stock liquidity and dividend. Past literature has recorded governance serves to protect shareholder rights by mitigating the perverse insider's behaviour (Amer Al-Jaifi, Al-Rassas & Al-Qadasi 2017). Namely, under the condition of good governance, external or minority stockholders' rights are likely to be protected and vice versa if the governance is weak. The strong protection for the shareholders' rights under good governance may explain why dividends in the developed market countries are less likely to be volatile than the emerging market countries which have relatively weak governance. Furthermore, stronger governance leads to greater quality of information (Kanagaretnam et al. 2007). Since, quality of information leads to greater transparency of firm's performance, the level of information asymmetry under good governance is likely to be low.

The potential moderating effects of governance on stock liquidity and dividend raise a question on how important governance quality in influencing stock liquidity and dividend relationship especially in emerging market countries. According to Lesmond (2005), emerging market experiencing a massive growth in shares traded which is from \$15 billion to \$200 billion within just 10 years. This not only happen in liquidity but also market capitalization which rose from \$306 billion to \$1.4 trillion. The increase investment in emerging market can easily provide a returns more 90 percent for any given year (Lesmond 2005). Although the returns in emerging market are substantial, it depends on the increase risk and volatility and these returns can significantly reduce by the reduction on

liquidity of stock trading in emerging relative to developed markets (Lesmond 2005). This indicates that stock liquidity has substantial effect on emerging market returns relative to developed markets countries. The substantial difference between emerging and developed market not only affecting stock liquidity and its returns but also the firm's dividend policy.

A substantial amount of empirical evidences in past literature shows significant differences on dividend policies between emerging and developed market countries. One of the early and significant articles was written by Glen et al. (1995). In their article using a sample across emerging market countries and the US market as a parallel comparison, a significant difference was found. For instances, the dividends paid in emerging market countries are two-third of dividend paid in developed market countries (Glen et al. 1995). They further emphasized that dividends paid in emerging market countries are less stable because the dividends are largely determined by a ratio as compared to developed market countries which largely depend on the dividend level (Glen et al. 1995). In addition, Aivazian, Booth and Cleary (2003) discovered that emerging market is more sensitive towards financial constraints and as a results dividend paid are lower than those in developed countries which have better external sources of financing. Since, governance quality provides an effects to both stock liquidity and dividend as posit in the past literature, a country level governance should play important role in enhancing the number of investors by providing a better stock returns through better liquidity and much stable dividend policy via sound policy that protect investors rights.

Based on this argument, this study posits that good governance at country-level improves stock market liquidity by increasing the investors' interest through greater protection of investors' rights. This study aims to examines the moderating effect of governance quality on the link between stock liquidity and dividend. The effect of good governance in providing greater quality of information as well as a greater number of investors should therefore further enhance the level of information brought on by stock liquidity. Furthermore, the quality of governance and its attributes have been studied and found to influence the level of information asymmetry (Elbadry, Gounopoulos & Skinner 2015; Cormier et al. 2010; Flaherty, Li & Small 2007). In short, governance quality has been found in past studies to have a significant effect on the level of information asymmetry, increased the number of investors' participation through greater protection, improved the quality of information delivered as well as greater transparency. Thus, based on these criteria this study suggests governance quality through its mechanism moderates the relationship between stock liquidity and dividend.

This paper is unique from past literature in two ways. First, the study examines the moderating effect of governance quality on the relationship between stock liquidity and dividend. Secondly, the study examines the relationship between stock liquidity and dividend across twenty-two emerging market countries for generalization, which is limited in the past studies. This study finds that political stability, government effectiveness, regulation quality and control of corruption are among the dimensions in governance quality that significantly moderate the relationship between stock liquidity and dividend. Also, this study finds that governance quality using aggregate average score does indeed moderate the relationship between stock liquidity and dividend. The next section of the paper reviews the literature and formulate the hypothesis, followed by the explanation of the data and research method, discussion of empirical findings and managerial implication of the study. The final section of the study concludes the overall study and highlights the limitation as well as future research recommendations.

LITERATURE REVIEW

The rise of globalization has caused country-level governance to become one of the most prevalence and crucial issues in the world of finance (Low, Tee & Kew 2015). The world financial crisis further drives the belief on the importance of governance quality in influencing financial system (Low et al. 2015). According to Kaufmann, Kraay and Mastruzzi (2010), governance is "the traditions and institutions by which authority in a country is exercised. This includes the process by which government selected, monitored, and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern the economic and social interactions among them". Past works of literature have emphasized the importance of interplay presence between governance at country-level as well as at firm-level framework (Low et al. 2015). Therefore, assessment at firm-level governance is a good starting point for regulators to gain more insight on the effect of country-level governance on stock market risk since both simultaneously interact and neither firm- nor country-level can function properly on its own (Low et al. 2015). For over a decade, researchers have identified the quality of governance at country-level has a deep influence on corporate policies and financial market operations through its hold on the accessibility of stock market performance, cost of capital, corporate valuations, investment quality and external financing (Hail Leuz 2006; Daouk, Lee & Ng 2006; Hopper et al. 2009; Yartey 2010; Giannetti & Koskinen 2010; Chiou, Lee & Lee 2010; Low et al. 2011). The deep influences of governance quality on

corporate policies as well as stock market performances may potentially control the relationship between stock liquidity and dividend.

Governance is well noted for its effect on mitigating information asymmetry in a number of empirical studies (Kanagaretnam et al. 2007; Cormier et al. 2010; Elbadry et al. 2015). In addition, past studies have documented there is a positive association between governance effectiveness and market liquidity (Amer Al-Jaifi et al. 2017; Ali et al. 2016; Karmani, Ajina & Boussaada 2015; Chung, Elder & Kim 2010). Good governance quality is very important in order to increase investors' confidence, including broadening and deepening its capital market (Amer Al-Jaifi et al. 2017). Furthermore, effective governance serves to protect shareholders' rights by reducing the perverse insiders' behaviour (Amer Al-Jaifi et al. 2017). This is in-line with other empirical studies that posit strong governance persuades internal shareholders to pay more dividends (Mitton 2004; Petrasek 2012). In addition, past study also finds that firm with better governance pay more dividend, however, this relationship is only significant in countries with minimal shareholder protection rights (Chang et al. 2018). Furthermore, past study also finds that strong governance not only serves to protect the rights of shareholders but also delivers a good quality of information (Kanagaretnam et al. 2007). The attributes of governance increase the quality of information delivered, protect shareholders' rights and increase investors' level of confidence. Good governance quality attracts more investors not just from local but also foreign markets which will eventually improve domestic market liquidity. Based on these arguments, this study postulates that governance quality at countries-level moderates the relationship between stock liquidity and dividend. To measure country-level governance, the World Bank has developed six indicators to assess six dimensions of governance quality in a country. The six dimensions include voice and accountability, political stability, government effectiveness, regulations quality, rule of law and control of corruption.

MODERATING EFFECT OF VOICE AND ACCOUNTABILITY

Voice and accountability are important components of governance because both government and citizens play a vital role in implementing the governance that works for the poor and the same time enhances democracy (Krishnan & Teo 2012). According to Goetz and Jenkins (2001, 2002), voice can be defined as a variability; informal as well as formal mechanism, in which people express their preferences, opinions and views, while accountability as

the nature of relationship between two different parties. According to Kaufmann, Kray and Zoido-Lobotan (1999), voice and accountability canter on freedom of expression, political rights and electoral expression. In the context of stock market liquidity, voice and accountability enable investors to participate in channelling their voice on what is expected of governments in regards to stock market performances and the governments' accountability in providing a better environment like policies which align with the voice of the citizens (e.g. investors). Based on this point, this study posits that:

H_1 Voice and accountability positively moderate the relationship between stock liquidity and dividend.

MODERATING EFFECT OF POLITICAL STABILITY

According to Kaufmann et al. (1999), political stability concerns the probability of domestic violence and terrorism, a premature takeover of government and obligatory stability in policies. In other words, political stability can be referred to as the magnitude of turbulence in a country (Meso, Datta & Mbarika 2006). Political instability might affect stock liquidity in a way that reduces the number of foreign as well as local investors' interests in investing in the country. According to Krishnan and Teo (2012), large theoretical studies suggest political instability will adversely affect the growth of economies. Countries with a relatively unstable political condition tend to adopt inefficient and less optimal policies such as excessive government consumption, inefficient selection of tax system and massive accumulation of external debt which eventually affect the growth of economies in a bad way (Cukierman, Edwards & Tabellini 1992). Sadowsky (1993, 1996) on one hand associates political stability with the level of foreign direct investment as well as the risk in involving with such investment. According to Sadowsky (1993, 1996), the greater the degree of turbulence, the greater the risk of investment in the country. Furthermore, according to Meso (2006), the level of political stability might influence the degree of involvement from local citizens towards engaging in productive economic activities. For instances, under the conditions of lower political stability, local citizens might invest their productive resources in the countries which provide greater returns with a stable environment or in assets that protect them against the loss of wealth (Meso 2006). Since the magnitude of political stability affects the number of foreign as well as local investors, this study posits:

H₂ Political stability positively moderates the relationship between stock liquidity and dividend.

MODERATING EFFECT OF GOVERNMENT EFFECTIVENESS

Government objectives can range from economics to social perspectives (Srivastava & Teo 2007). According to Kaufmann et al. (1999), the economic objectives of the government emphasize competitiveness. On the other hand, social objectives are concerned with improving the social lives of citizens by minimizing inequalities as well as poverty. This objective can only be achieved if the government are committed to its stakeholders in providing the goods and services (Kaufmann et al. 1999). Krishnan and Teo (2012) further emphasize, to achieve such objectives the government must be effective in creating and implementing good system and policies. In the context of stock market liquidity, government effectiveness not only helps in minimizing the inequalities by promoting rights protections for minority shareholders but also in attracting more foreign investors by increasing the confidence of investors towards the government's effectiveness in such rights protection (Amer Al-Jaifi et al. 2017). Thus, this study posits that:

H₃ Government effectiveness positively moderates the relationship between stock liquidity and dividend.

MODERATING EFFECT OF REGULATION QUALITY

Regulations quality can be referred to as regulatory framework that focuses on unfriendly market policies such as price controls, lack of supervision from banks and the burden of extreme regulations in specific areas such as business development and foreign trades (Kaufmann et al. 1999). In addition, Radaelli (2007) asserts the target of regulatory performance improvement includes reduction of burden, cost-effective regulation and improvement on the reliance over market-friendly alternatives towards regulations. In the context of stock market liquidity, regulations quality can improve stock liquidity by promoting market-friendly policies such as a greater financial market openness that attracts both foreign and local investors. According to Lee and Chou (2018), financial market openness facilitates operation of the domestic financial institution, eases the reduction of capital cost and attracts a greater number of investors which would

eventually improve the magnitude of capital market liquidity. Based on this argument, this study posits that:

H₄ Regulations quality positively moderates the relationship between stock liquidity and dividend.

MODERATING EFFECT OF RULE OF LAW

According to Kaufmann et al. (1999), rule of law can be referred to as the degree in which agents have assurance in and abide by the rules of society. These include the predictability and effectiveness of the judiciary, insights on the occurrence of misconducts and contract enforceability. In other words, these dimensions of governance concern the degree of achievement by society as a whole in developing a setting where fair and foreseeable rules are the basis for the social and economic interactions and emphatically, protection of property rights (Krishnan & Teo 2012). The emphasis on the protection of property rights improves investors' interest in the country. According to Brockman and Chung (2003), the main difference between liquidity across countries is the poor protection of shareholders. In other words, countries with poor shareholders protection tend to have lower liquidity with weak participation from investors. Under such condition of poor protection, investors will not be interested to invest in that country. Furthermore, Dumitrescu (2010) highlights that governance would affect market liquidity by improving the effectiveness of shareholders' protection that leads to greater liquidity. Since rule of law emphasizes on improving the fair and foreseeable rule as well as achieving greater shareholders' protection, this study suggests that a greater rule of law will lead to greater market liquidity through an increase in the number of participants. Thus, this study posits:

H₅ Rule of law positively moderates the relationship between stock liquidity and dividend.

MODERATING EFFECT OF CONTROL OF CORRUPTION

According to Ojha, Palvia and Gupta (2008), corruption is a complex term that has various connotations. Corruption can be defined as the acts in which a public official is used for personal benefits that contradict the rules of the game. United Nations Office on Drug and Crime (UNODC 2004) has classified corruption into several forms; embezzlement, bribery, abuse of discretion, theft, extortion, favouritism,

improper political contribution and exploiting conflicting interests. Corruption can be seen as a problem of information asymmetric and incentives through the principal and agent model (Klitgaard 1988). The principal in this model is the honest government public official while the person in charge of public servants is the agent and the one responsible for delivery of services to businesses and citizens is the client. This model predicts that when a public official has a monopoly of control and operates with a lack of accountability, problems of corruption will arise when there is information asymmetric between principals and clients, in which the agents have more information about administration than the principal and clients. In the context of market liquidity, control of corruption should therefore further reduce the level of monopoly and information asymmetric by the principal and increase the level of transparency and incentives for a firm to pay dividends. Therefore, this study posits:

H$_6$ Control of corruption positively moderates the relationship between stock liquidity and dividend.

Despite lots of empirical evidence supporting the positive association between governance quality and dividend in the past literature, there are also several studies

suggesting the negative tone on association between governance and dividend. For example, La Porta et al. (2000) provide two hypothesis namely outcome and substitute, where outcome hypothesis predicted positive association between governance and dividend. On contrary, the substitute hypothesis predicted negative association between governance and dividend. In substitute hypothesis, firms use dividend as a substitute for weak governance in order to maintain a good relationship with shareholders. Jiang et al. (2017) indicate a negative tone of governance quality by arguing that weak governance provides more room for informational effect of stock liquidity to influence dividend policy. Since, there are two possible relationships between governance and dividend, the study may not necessarily find the positive moderating effect of governance quality and on contrary may find the negative tone of governance quality that supporting substitute hypothesis as predicted by La Porta et al. (2000). Figure 1 explains the overall pictures of research framework in this study
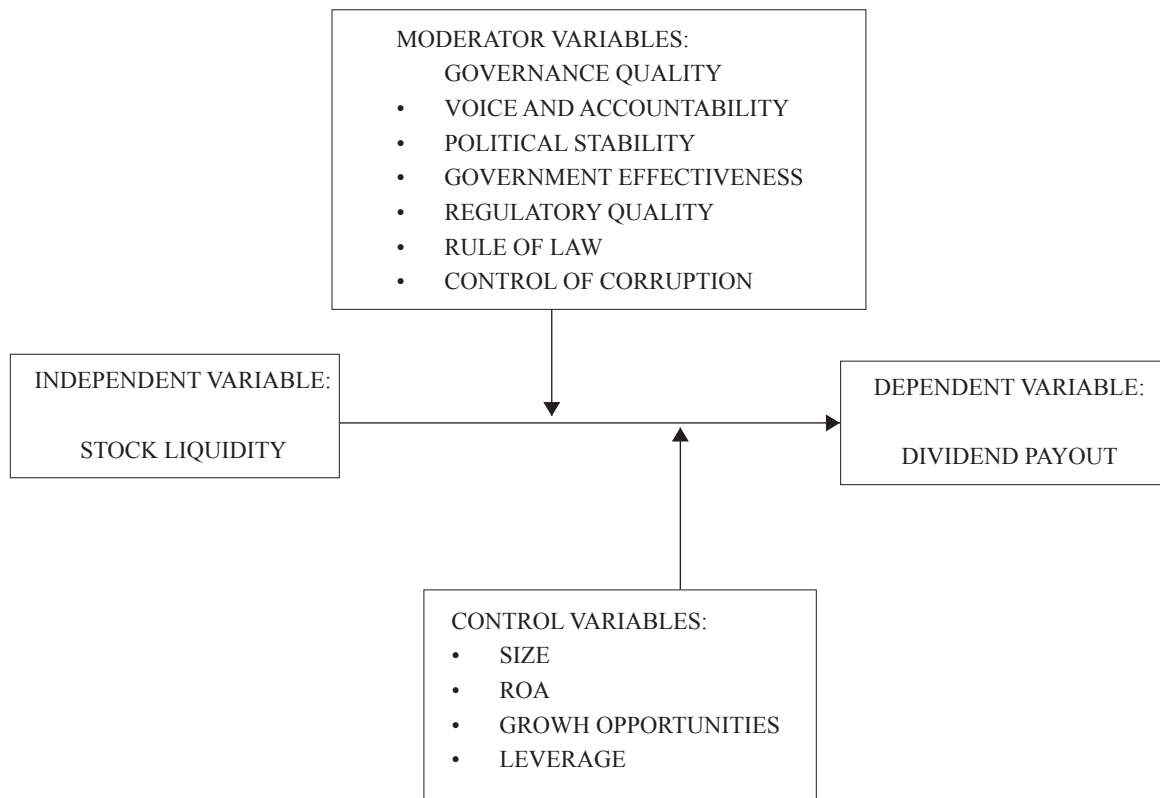
METHODOLOGY

FIGURE 1. Research framework

The data for this study were sourced from Datastream, Thomsan Reuters and World Bank Database. The sample comprised of 3398 firms listed in emerging market countries with a total of 22551 firm-year observations. The emerging market countries selected for this study consisted of 22 countries as listed by the International Monetary Fund (IMF) excluding China which found to be an outlier for several variables in the study. The listed countries include Argentina, Bulgaria, Brazil, Bangladesh, Colombia, Chile, Hungary, Indonesia, India, Mexico, Malaysia, Peru, Poland, Pakistan, Philippines, Romania, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela. This study covered 10 years of observations which ranged from the year 2006 to 2015. The study chooses to start from the year of 2006 onwards is because there are some missing data on governance quality from the previous year. All firms from each country were included except firms with incomplete financial data, firms in the financial sectors and firms with less than 30-trading days in a year. The collected data were analysed using Panel Data Logistic regression model. The study used the propensity to pay dividend (DIV) which takes value of 1 if firm pay dividend and 0 otherwise whereas proportion of zero absolute return (LESMOND) as a proxy for liquidity. The reason for choosing LESMOND measurement as the main proxy was because according to Lesmond et al. (1999), stock with high friction will have less frequent price movement and have greater zero returns than securities with much lower transaction costs. Thus, the occurrence of zero was used as a measure of illiquidity. Since the higher value of LESMOND illiquidity ratio indicates a lower level of liquidity, we multiplied the value by -1 for ease of interpretation. The moderating variables of the study consisted of six variables which were collected from the World Bank database. The six variables are voice and accountability, political stability, government effectiveness, regulations quality, rule of law and control of corruption. Whereas the selected control variables are firm size, profitability, growth opportunities and leverage. The study also added three fixed effects to control the variability effect of different countries, industry and year fixed effect using dummy variables. The variables were estimated using the following models:

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ VA_{it} + \beta4(Liquidity*VA)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8\ Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (1)

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ PS_{it} + \beta4(Liquidity*PS)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (2)

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ GE_{it} + \beta4(Liquidity*GE)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (3)

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ RQ_{it} + \beta4(Liquidity*RQ)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8\ Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (4)

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ RL_{it} + \beta4(Liquidity*RL)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8\ Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (5)

$Dividend\ Payout_{i,t} =$
$\alpha_{it} + \beta2\ Liquidity_{it} + \beta3\ CC_{it} + \beta4(Liquidity*CC)_{it} + \beta5\ lnSize_{it} + \beta6\ lnROA_{it} + \beta7\ Growth_{it} + \beta8Leverage_{it} + \theta_{it} + \alpha_{it} + \mu_{it} + \varepsilon_{it}$ (6)

Where dividend payout is denoted as firm cash dividend over earnings for *DIV* **β2** represented Lesmond liquidity ratio. **β3** is denoted as governance quality dimension namely *VA, PS, GE, RQ, RL* and *CC* for each different equation respectively. **β4** is denoted as the moderating variable or interaction term between six dimensions of governance quality namely voice and accountability (*Liquidity*VA*), political stability (*Liquidity*PS*), government effectiveness (*Liquidity*GE*), regulation quality (*Liquidity*RQ*), Rule of Law (*Liquidity*RL*) and control of corruption (*Liquidity*CC*) with liquidity ratio. **β5**, **β6**, **β7**, and **β8** were denoted as control variables namely firm size, profitability, growth opportunities (Tobin's Q) and leverage; each obtained from DataStream. Last but not least, represented by country fixed effect, industry fixed effects, and is represented by year fixed effects, whereas is represented by error term.

RESULTS

Table 1 presents the descriptive statistics of the variables used in the study excluding the dummy variables. To ensure the robustness of our results, several diagnostic tests were performed. Table 2 presents the correlation analysis. Based on Table 2, several variables indicate high correlation. For instance, the interaction term "*Liquidity*CC*" has a very high correlation value of 0.95 with "*Liquidity*RL*". *Liquidity*PS* and *lnSize* are categorized under the low correlation values of 0.30 to 0.50. Besides the correlation matrix analysis, the study also used the Variance Inflation Factor (VIF). Based on Table 3, the highest VIF is 21.18 and the mean VIF is 7.29. There are eight variables with VIF values larger than 4.0 and four of them are the interaction terms namely *Liquidity*GE*, *Liquidity*RQ*,

Liquidity*RL and *Liquidity*CC*. The correlation coefficient above 0.6 and VIF score above 4.0 are considered large (Hair et al. 2010). Thus, to overcome this problem, the study analysed each of the interaction terms separately to avoid multicollinearity and bias results. In other words, there was six separate analysis that examined the moderating factor of governance in six different dimensions. When the six proxies for governance were examined in six separate analysis, the VIF and correlation indeed did not rise above 4.0 and 0.60 respectively which solved the multicollinearity issues (See Appendix: Table 12 to 18).

This means the construct is truly distinct from each other and multicollinearity issues do not exist when the interactions term are examined individually. Furthermore, according to Hair, Ringle and Sarstedt (2013), although there is theoretical support for multiple moderators, researchers should analyse one moderator at a time to sustain the interpretability of the results. This further justifies why this study analysed the interaction terms individually and not as a group.

TABLE 1. Descriptive statistics

Variables	Observations	Mean	Std. Dev.	Maximum	Minimum
Dividend Payout	22551	0.685	0.464	0.000	1.000
Liquidity	22551	0.051	0.967	-11.213	0.616
VA	22551	0.033	1.002	-2.352	2.002
PS	22551	-0.021	0.992	-2.920	2.466
GE	22551	-0.025	0.988	-2.921	2.049
RQ	22551	-0.024	1.002	-3.806	2.965
RL	22551	-0.009	1.004	-5.082	3.459
CC	22551	-0.017	1.014	-2.788	4.272
Liquidity*VA	22551	0.165	1.138	-22.420	20.468
Liquidity*PS	22551	-0.199	1.153	-20.731	32.602
Liquidity*GE	22551	-0.214	1.176	-22.978	23.542
Liquidity*RQ	22551	-0.230	1.313	-32.518	26.114
Liquidity*RL	22551	-0.100	1.566	-36.331	34.140
Liquidity*CC	22551	-0.163	1.682	-42.974	22.577
Log (Size)	22551	15.019	2.558	6.390	23.350
Log (ROA)	22551	1.565	1.389	-9.166	6.476
Growth	22551	1.496	1.832	-0.084	163.546
Leverage	22551	46.302	22.388	-27.888	229.253

TABLE 2. Correlation analysis

Variable	Didend payout	Liquidity	VA	PS	GE	RQ	RL	CC	Liquidity* VA	Liquidity* PS	Liquidity* GE	Liquidity* RQ	Liquidity* RL	Liquidity* CC	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.00																	
Liquidity	0.08	1.00																
VA	-0.07	0.17	1.00															
PS	0.00	-0.21	0.07	1.00														
GE	0.02	-0.22	-0.22	0.77	1.00													
RQ	0.03	-0.24	-0.11	0.76	0.82	1.00												
RL	0.00	-0.10	0.25	0.69	0.81	0.72	1.00											
CC	0.02	-0.17	0.20	0.79	0.80	0.87	0.87	1.00										
Liquidity*VA	-0.02	-0.02	-0.07	-0.03	0.00	-0.10	-0.04	-0.12	1.00									
Liquidity*PS	0.00	0.27	-0.03	-0.11	-0.14	-0.09	-0.18	-0.15	0.45	1.00								
Liquidity*GE	-0.03	0.26	0.01	-0.13	-0.19	-0.13	-0.22	-0.19	0.25	0.81	1.00							
Liquidity*RQ	-0.03	0.39	-0.08	-0.08	-0.12	-0.11	-0.21	-0.17	0.47	0.79	0.85	1.00						
Liquidity*RL	-0.04	0.15	-0.03	-0.14	-0.17	-0.17	-0.22	-0.22	0.57	0.79	0.88	0.87	1.00					
Liquidity*CC	-0.04	0.25	-0.08	-0.11	-0.13	-0.14	-0.21	-0.21	0.63	0.81	0.83	0.91	0.95	1.00				
Log (Size)	0.26	0.13	0.13	-0.24	-0.34	-0.21	-0.30	-0.23	-0.11	0.07	0.06	-0.01	0.00	-0.04	1.00			
Log (ROA)	0.26	0.18	0.08	-0.08	0.02	-0.02	0.12	0.05	-0.01	-0.03	-0.06	-0.06	-0.07	-0.06	-0.22	1.00		
Growth	0.11	0.07	0.03	-0.04	-0.07	-0.04	-0.06	-0.03	-0.02	0.03	0.02	0.01	0.00	0.00	0.08	0.19	1.00	
Leverage	-0.13	0.14	0.23	-0.16	-0.21	-0.22	-0.09	-0.13	0.00	0.03	0.05	0.03	0.04	0.02	0.20	-0.09	-0.01	1.00

TABLE 3. VIF analysis

Variable	VIF	1/VIF
*Liquidity*CC*	21.180	0.047
*Liquidity*RL*	20.100	0.050
*Liquidity*GE*	12.420	0.081
CC	11.910	0.084
GE	10.640	0.094
*Liquidity*RQ*	9.580	0.104
RL	9.260	0.108
RQ	7.230	0.138
*Liquidity*PS*	3.930	0.254
*Liquidity*VA*	3.770	0.265
PS	3.740	0.268
VA	3.390	0.295
Liquidity	1.970	0.507
Log (Size)	1.350	0.739
Log (ROA)	1.250	0.800
Leverage	1.150	0.872
Growth	1.060	0.942
Mean VIF	7.290	

To alleviate the concerns for both potential heteroscedasticity and autocorrelation the study apply robust standard errors (Huber White sandwich estimator) in each model to solve for this problem.

RANDOM EFFECT LOGISTIC REGRESSION ESTIMATION

In Table 4 to Table 6, the study applies random effect logistic regression as the main method to estimate the model. Since the outcome of the variable is coded 0, 1 and there is little variation in outcome that change overtime, the study chooses random effect logistic regression over the fixed effect. This is because, the fixed effect regression analysis cannot asses the effect of variables that have little within group variation. Since the data from the study does not vary much from on year to the next, the study will have more observation and instruments when using random effect analysis. Since estimating multiple interaction terms simultaneously resulted in high multicollinearity, the study examined each of the governance quality dimension individually in separate analyses. Each dimension will be examined separately and classify into model I until model VI. Table 4 to Table 6 from each model shows the moderating effect for each individual analysis from the six different dimensions. From the six dimensions, four interaction terms show significant and negative relationship namely political stability, government effectiveness, regulation quality and control of corruptions. The first interaction term with significant results is Liquidity*PS which represents the moderating role of political stability with a z-value of -2.81 and a p-value of 0.005. The second interaction term with significant results is Liquidity*GE which represents the moderating role of government effectiveness with a z-value of -2.54 and a p-value of 0.011. The third interaction term is Liquidity*RQ which represents the moderating role of regulation quality with a z-value of - 2.91 and a p-value of 0.004. The final and fourth interaction term is Liquidity*CC which represents the moderating effect of control of corruption with a z-value of -2.5 and a p-value of 0.013. The remaining interaction terms Liquidity*VA and Liquidity*RL each represent voice and accountability and rule of law are not significant with a p-value larger than 0.05. All these analyses are robust after applying standard errors calculation to counter for potential both heteroscedasticity and autocorrelation.

The significant negative moderating effect of governance quality indicate that the presence of high governance quality lowering dividend payout. This finding is aligned with La Porta et al. (2000) substitute hypothesis. According to La Porta et al. (2000) substitute hypothesis, firm will use dividend as a substitute for weak governance in order to maintain a good relationship with shareholders. This may explain why the presence of higher governance quality negatively moderates the relationship between stock liquidity and dividend. Furthermore, Jiang et al. (2017) argued that weak governance makes more room for stock liquidity informational effect to influence dividend payout. In other words, the presence of good governance to mitigate information asymmetry makes the informational effect of stock liquidity become less significant resulting a negative moderating effect of governance quality on stock liquidity and dividend relationship. In short, the presence of good governance quality may not necessarily improve dividend payout, but they may use dividend as a substitute for a weaker governance in order to maintain a good relationship with their shareholder as posit by substitute hypothesis by La Porta et al. (2000).

TABLE 4. Moderating effect of voice and accountability and moderating effect of political stability
(Robust standard errors)

Variables	(Model I)			Variables	(Model II)		
	Moderating Effect of Voice and Accountability				Moderating Effect of Political Stability		
Dividend Payout	COEF	z-value	p-value	*Dividend Payout*	COEF	z-value	p-value
Liquidity	0.108	2.380	0.017	*Liquidity*	0.109	2.460	0.014
VA	-0.150	-0.740	0.462	*PS*	0.272	1.630	0.102
*Liquidity*VA*	0.013	0.300	0.767	*Liquidity*PS*	-0.085	-2.810	0.005
Log (Size)	1.423	24.140	0.000	*Log (Size)*	1.432	24.230	0.000
Log (ROA)	0.546	13.240	0.000	*Log (ROA)*	0.548	13.290	0.000
Growth	0.206	4.990	0.000	*Growth*	0.205	5.040	0.000
Leverage	-0.048	-15.840	0.000	*Leverage*	-0.048	-15.880	0.000
Country	Fixed effect included						
Industry	Fixed effect included						
Year	Fixed effect included						

TABLE 5. Moderating effect of government effectiveness and regulations quality (Robust standard errors)

Variables	(Model III)			Variables	(Model IV)		
	Moderating Effect of Government Effectiveness				Moderating Effect of Regulations Quality		
Dividend Payout	COEF	z-value	p-value	*Dividend Payout*	COEF	z-value	p-value
Liquidity	0.108	2.390	0.017	*Liquidity*	0.138	2.980	0.003
GE	0.655	3.940	0.000	*RQ*	-0.208	-1.130	0.257
*Liquidity*GE*	-0.086	-2.540	0.011	*Liquidity*RQ*	-0.104	-2.910	0.004
Log (Size)	1.436	24.250	0.000	*Log (Size)*	1.423	24.300	0.000
Log (ROA)	0.547	13.260	0.000	*Log (ROA)*	0.547	13.250	0.000
Growth	0.207	4.910	0.000	*Growth*	0.207	4.960	0.000
Leverage	-0.049	-16.070	0.000	*Leverage*	-0.048	-15.870	0.000
Country	Fixed effect included						
Industry	Fixed effect included						
Year	Fixed effect included						

TABLE 6. Moderating effect of rule of law and control of corruption (Robust standard errors)

Variables	(Model V)			Variables	(Model VI)		
	Moderating Effect of Rule of Law				Moderating Effect of Control of Corruption		
Dividend Payout	COEF	z-value	p-value	*Dividend Payout*	COEF	z-value	p-value
Liquidity	0.090	2.070	0.039	*Liquidity*	0.096	2.170	0.030
RL	0.265	1.390	0.164	*CC*	0.066	0.490	0.627
*Liquidity*RL*	-0.050	-1.780	0.075	*Liquidity*CC*	-0.074	-2.500	0.013

Log (Size)	1.433	24.290	0.000	Log (Size)	1.433	24.360	0.000
Log (ROA)	0.547	13.260	0.000	Log (ROA)	0.548	13.300	0.000
Growth	0.206	4.950	0.000	Growth	0.206	5.010	0.000
Leverage	-0.048	-15.890	0.000	Leverage	-0.048	-15.870	0.000
Country	Fixed effect included						
Industry	Fixed effect included						
Year	Fixed effect included						

OVERALL SCORES (AGGREGATE AVERAGE SCORES OF GOVERNANCE QUALITY)

The documented significant negative moderating effects of governance quality dimensions may drive by our choice on how to examine the moderating effects of governance quality. To alleviate this concern, we consider using aggregate average score of governance quality as alternative measure. Furthermore, according to Srinidhi, He and Firth (2014), the use of aggregate reduces the measurement error that is inherent in the use of any one structural variable. To obtain overall score of governance quality in that country we added together all six proxies to create average aggregate score of each country to proxy for governance quality. Table 7 reports the alternative measures of governance quality in the form aggregate average (GQ). Based on the table 7, the results show that interaction term "Liquidity*GQ" as alternative measures of governance quality in the form of aggregate average score negatively moderates the relationship between stock liquidity and dividend with z-value of -2.37.

TABLE 7. The moderating effect of governance quality on the relationship between stock liquidity and dividend across emerging market countries (Robust standard errors)

Dividend Payout	COEF	z-value	P-value
Liquidity	0.0980384	2.2	0.028
GQ	0.2446852	1.18	0.237
Liquidity*GQ	-0.0712086		
Log (Size)	1.434494	-2.37	0.018
Log (ROA)	0.5480313	24.33	0.000
Growth	0.2060145		
	-0.048376	13.29	0.000
		4.98	0.000
Leverage		-15.9	0.000
Country	Fixed effect included		
Industry	Fixed effect included		
Year	Fixed effect included		

ROBUSTNESS TESTS FOR ENDOGENEITY - OMITTED VARIABLES (FIRM FIXED EFFECTS REGRESSION)

TABLE 8. Robustness tests for endogeneity- omitted variables

Dividend Payout	COEF	Z	P>z
Lesmond	0.0013927	2.69	0.007
GQ	0.5055078	1.29	0.198
Lesmond*GQ	-0.0851445	-2.39	0.017
Log(size)	1.528738	15.22	0.000
Log(roa)	0.3510923	10.55	0.000
Growth	0.2025331	6.3	0.000
leverage	-0.0445122	-14.14	0.000
	0.0013927	2.69	0.007
Year	Fixed effect included		

To ensure the results are not influenced by the bias from the omitted variables, the study used the firm fixed effect regression analysis. As mentioned before, the data has little variation over time. So, the fixed effect analysis is inappropriate for data estimation. However, the inclusion of fixed effect that controls the time-invariant attributes may eliminate the cross-sectional relationship between stock liquidity and dividend payout. This may be associated with the omitted explanatory variables (Jiang et al. 2017). Therefore, the use of firm fixed effect regression should minimise the risk of omitted variable bias. Based on Table 8, the interaction between the Lesmond ratio and GQ has z-value of -2.39 and p-value of 0.017. The results are robust and statistically significant at 0.01% level using the fixed effect regression analysis.

ROBUSTNESS TESTS FOR ENDOGENEITY – REVERSE CAUSALITY (TWO STEP SYSTEM GENERALIZED METHOD OF MOMENTS)

TABLE 9. Robustness tests for endogeneity – reverse causality

Variables	Coef	Z	P>z
Dividend Payout (lag)	0.6869538	12.14	0.000
Lesmond	0.0000831	2.26	0.024
GQ	-0.0323678	-1.03	0.301
Lesmond*GQ	-0.0033303	-2.15	0.031
Log(size)	0.0234774	4.3	0.000
Log (ROA)	0.0438422	7.29	0.000
Growth	-0.0008372	-0.64	0.525
Leverage	-0.0009652	-4.41	0.000
Year	Fixed effect included		
Country	Fixed effect included		
Industry	Fixed effect included		
3rd order serial correlation (p-value)	0.186		
Differences Sargan test (p-value)	0.302		
Differences Hansen test (p-value)	0.800		

To ensure the results are not influenced by the bias from the reverse causality in the case of firm preferences over dividend payout are independent from the level of stock liquidity the study adopts the twostep system Generalized Method of Moment system (GMM) using aggregate average score of governance quality for overall picture of endogenous issue in this model. The study use xtabond2 command with orthogonal robust to solve for potential heteroscedasticity and autocorrelation problem. Based on Table 9, the interaction between the Lesmond ratio and GQ has z-value of -2.15 and p-value of 0.031. The model with lag of two was suffered from 2nd order of serial correlation, and therefore, the study use lag three, to improve the results as shown in the table 9. As a results, the study can reject the null hypothesis at 3rd serial correlation with p-value of 0.186. The table also shows that the instrument use in this model are valid and do not suffer from overidentification as shown by the Sargan and Hansen test with p-value of 0.302 and 0.800 respectively. This value indicate that this model is valid. The persistent significant negative moderating effect of governance quality on stock liquidity and dividend also indicate that the results are robust even after considering the endogeneity on reverse causality.

MANAGERIAL IMPLICATION

The empirical findings in this study can be used as a guidance by the investor in understanding and assessing the effect of governance quality in determining their preferences on stock liquidity or dividend. Specifically, the fund managers or investors can adopt the investment diversification strategy based on the preferences on governance strength in that country. Since, the strong governance provides less room for informational effect to influence dividend policies, investors or funds manager may less rely on stock liquidity informational effect to determine dividend policies but rather treating stock liquidity as a substitute (supporting liquidity hypothesis). On contrary, if the governance quality is weak a firm may use stock liquidity (informational effect) as a determinant of dividend policy as there are more room (significant effect) for stock liquidity to influence dividend policy under the condition of high information asymmetry (weak governance).

CONCLUSION

This paper investigates the moderating role of governance quality on the link between stock liquidity and dividend of emerging market countries from the year 2006 to 2015 using logistic panel random effects estimation model. Based on empirical results, the study shows that political stability, government effectiveness, regulation quality and control of corruption are among the factors that moderate the relationship between stock liquidity and dividend. Furthermore, the results also negatively significant using aggregate average score of governance quality. Surprisingly the results do not support the positive moderating effect as per the hypotheses but rather are negative with significant effect.

Since the higher proxy of governance quality measures the better quality of governance, it is reasonable that governance quality dimensions negatively moderate the positive relationship between stock liquidity and dividend. This is because weak governance provides the room for informational effects of stock liquidity On the other hand, strong governance quality reduces the room for informational effects of stock liquidity. Furthermore, substitute hypothesis posit that firm use dividend as a substitute for weak governance to maintain a good relationship with shareholders. In other words, the weaker the governance quality, the more dividend paid to substitute the weak governance in order to maintain a good relationship with their shareholder. Thus, this may explain why political stability, government effectiveness, regulation quality, control of corruption and aggregate

average score of governance quality negatively moderate the relationship between stock liquidity and dividend.

In short, this study contributes to the body of knowledge in two ways. First, while the link between stock liquidity and dividend is well established in past literature, assessing the factors that contribute to mixed findings is limited by the lack of research. Given this condition, this study examines the moderating factors that may contribute to the inconsistent findings by examining the moderating role of governance quality. Secondly, understanding the informational effect within emerging market environment setting helps outsiders to have a better understanding of the real reasons for dividend payouts and enables them to make a better decision with regards to the preferences on stock liquidity and dividend.

Future research should emphasize on examining governance quality at firm level to understand how governance quality react differently or similarly to stock liquidity and dividend relationship at country level. In addition, the comparison between governance quality dimension and aggregate average score of governance quality at firm level can be added as additional investigation.

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APPENDIX A

TABLE 10. Construct definition

Construct	Definition
Dividend Payout	Takes value of one if firm pay dividend and zero otherwise
Liquidity (LESMOND)	Proportion of zero absolute return
Log of Size	Firm size measure by natural logarithm of total assets.
Log of Return on Asset (ROA)	Firm profitability measure calculated as natural logarithm of net income over total asset
Growth (Tobin' Q)	Firm growth measure as market value of equity plus book value of total asset minus book value of equity, dividend by book value of total assets
Leverage	Firm leverage measure as the ratio of total liabilities over total assets
Countries Fixed Effect	Dummy variable equal to one for different types of countries
Industries Fixed Effect	Dummy variable equal to one for different types of industries
Year Fixed Effect	Dummy variable equal to one for each different year

TABLE 11. Governance dimensions, description, and concepts measured

Dimension	Description	Concepts measured
Voice and accountability	Captures the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.	1. Accountability of public officials 2. Freedom of political participation 3. Transparency of economic policy
Political stability	Measures the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism.	1. Government stability 2. Internal and external conflicts 3. Frequency of political killings
Government effectiveness	Captures the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	1. Institutional effectiveness 2. Bureaucratic quality 3. Quality of public administration

Regulatory quality	Captures the ability of the government to formulate and implement sound policies and regulations that permit and promote development.	1. Administrative regulations 2. Business regulatory environment 3. Trade policy
Rule of law	Captures the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	1. Property rights 2. Law and order 3. Law enforcement
Control of corruption	Captures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	1. Anti-corruption policy 2. Public trust in financial honesty of politicians 3. Frequency of household bribery

* Table 11 is only a sample list. Please refer to the World Bank's Worldwide Governance Indicators Web page (http://info.worldbank.org/governance/wgi/index.asp) for the complete list.

APPENDIX B

TABLE 12. Correlation analysis (Voice and Accountability)

Variable	Dividend Payout	Liquidity	VA	Liquidity*VA	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
VA	-0.066	0.169	1.000					
Liquidity VA*	-0.019	-0.024	-0.068	1.000				
Log (Size)	0.255	0.130	0.132	-0.115	1.000			
Log (ROA)	0.258	0.179	0.076	-0.013	-0.215	1.000		
Growth	0.105	0.074	0.031	-0.015	0.077	0.187	1.000	
Leverage	-0.133	0.141	0.229	-0.002	0.203	-0.088	-0.014	1.000

TABLE 13. Correlation analysis (Political Stability)

Variable	Dividend Payout	Liquidity	PS	Liquidity*PS	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
PS	0.003	-0.206	1.000					
Liquidity*PS	0.003	0.273	-0.110	1.000				
Log (Size)	0.255	0.130	-0.238	0.069	1.000			
Log (ROA)	0.258	0.179	-0.083	-0.028	-0.215	1.000		
Growth	0.105	0.074	-0.037	0.027	0.077	0.187	1.000	
Leverage	-0.133	0.141	-0.161	0.029	0.203	-0.088	-0.014	1.000

TABLE 14. Correlation analysis (Government effectiveness)

Variable	Dividend Payout	Liquidity	GE	Liquidity*GE	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
GE	0.018	-0.223	1.000					
Liquidity* GE	-0.029	0.264	-0.187	1.000				
Log (Size)	0.255	0.130	-0.341	0.062	1.000			
Log (ROA)	0.258	0.179	0.016	-0.060	-0.215	1.000		
Growth	0.105	0.074	-0.070	0.016	0.077	0.187	1.000	
Leverage	-0.133	0.141	-0.210	0.052	0.203	-0.088	-0.014	1.000

TABLE 15. Correlation analysis (Regulation Quality)

Variable	Dividend Payout	Liquidity	RQ	Liquidity*RQ	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
RQ	0.031	-0.236	1.000					
Liquidity* RQ	-0.029	0.385	-0.106	1.000				
Log (Size)	0.255	0.130	-0.212	-0.013	1.000			
Log (ROA)	0.258	0.179	-0.020	-0.058	-0.215	1.000		
Growth	0.105	0.074	-0.042	0.006	0.077	0.187	1.000	
Leverage	-0.133	0.141	-0.222	0.030	0.203	-0.088	-0.014	1.000

TABLE 16. Correlation analysis (Rule of Law)

Variable	Dividend Payout	Liquidity	RL	Liquidity*RL	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
RL	-0.004	-0.103	1.000					
Liquidity* RL	-0.036	0.153	-0.219	1.000				
Log (Size)	0.255	0.130	-0.301	0.002	1.000			
Log (ROA)	0.258	0.179	0.119	-0.065	-0.215	1.000		
Growth	0.105	0.074	-0.056	0.004	0.077	0.187	1.000	
Leverage	-0.133	0.141	-0.089	0.038	0.203	-0.088	-0.014	1.000

TABLE 17. Correlation analysis (Control of corruption)

Variable	Dividend Payout	Liquidity	CC	Liquidity*CC	Log (Size)	Log (ROA)	Growth	Leverage
Dividend Payout	1.000							
Liquidity	0.083	1.000						
CC	0.020	-0.166	1.000					
Liquidity* CC	-0.039	0.249	-0.211	1.000				
Log (Size)	0.255	0.130	-0.226	-0.035	1.000			
Log (ROA)	0.258	0.179	0.050	-0.060	-0.215	1.000		
Growth	0.105	0.074	-0.031	0.000	0.077	0.187	1.000	
Leverage	-0.133	0.141	-0.131	0.025	0.203	-0.088	-0.014	1.000

TABLE 18. VIF analysis (Six dimension of governance quality)

Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variable	VIF	1/VIF
Log (ROA)	1.16	0 .86	Liquidity	1.19	0.84	Log (Size)	1.24	0.81
Log (Size)	1.15	0.87	Log (Size)	1.18	0.84	GE	1.22	0.82
Leverage	1.11	0.90	Log (ROA)	1.17	0.85	Liquidity	1.19	0.84
Liquidity	1.10	0.91	PS	1.13	0.89	Log (ROA)	1.17	0.86
VA	1.10	0.91	Liquidity*PS	1.09	0.91	Liquidity*GE	1.11	0.90
Growth	1.05	0.95	Leverage	1.08	0.93	Leverage	1.08	0.92
Liquidity*VA	1.02	0.98	Growth	1.05	0.95	Growth	1.05	0.95
Mean VIF	1.10		Mean VIF	1.13		Mean VIF	1.15	

Variable	VIF	1/VIF
Liquidity	1.34	0.75
*Liquidity*RQ*	1.21	0.82
Log (ROA)	1.18	0.85
Log (Size)	1.17	0.85
RQ	1.13	0.88
Leverage	1.10	0.91
Growth	1.05	0.95
Mean VIF	1.17	

Variable	VIF	1/VIF
Log (Size)	1.22	0.82
RL	1.17	0.86
Log (ROA)	1.17	0.86
Liquidity	1.12	0.89
*Liquidity*RL*	1.09	0.92
Leverage	1.06	0.94
Growth	1.06	0.95
Mean VIF	1.13	

Variable	VIF	1/VIF
Log (Size)	1.19	0.84
Liquidity	1.18	0.85
Log (ROA)	1.17	0.85
*Liquidity*CC*	1.13	0.88
CC	1.12	0.89
Leverage	1.07	0.93
Growth	1.05	0.95
Mean VIF	1.13	