Int. Journal of Economics and Management 11 (S2) : 287 – 307 (2017)

IJEM
International Journal of Economics and Management
Journal homepage: http://www.econ.upm.edu.my/ijem

Good Governance Mechanism, Agency Problems and Privatized SOEs Performance: Empirical Evidences from Indonesian Stock Exchange

HILDA ROSSIETA

Faculty of Economic and Business, Universitas Indonesia, Indonesia

ABSTRACT

Focusing on the unique agency problem faced by state-owned enterprises (SOE), this research investigates how key elements of the Good Governance (GG) mechanism affect the likelihood of high performance in privatized Indonesian SOEs through the IDX. The two key elements of the GG mechanism covered are: (i) Internal Rules and Restraints (IRR) and (ii) Competition. Using a binary logistic regression model that categorizes Price to Book Value of Equity (PBV) into high and low performance based on average value, this research uses six independent variables to measure the GG mechanism. Using a 218 firm-years sample derived from 21 SOEs privatized during 1991 to 2014, the empirical results suggest that the GG mechanism has an effect on privatized SOEs' performance level. The IRR variable, namely corporate restructuring and operating efficiency, increases the likelihood of privatised SOEs having high performance. These results indicate that privatization is capable of limiting conventional agency problems between privatized SOE managers and minority shareholders. For the Competition variable, market domination increases the odds of high performance. However, when IRR comes into play, the empirical evidence suggests that government ownership reduces the chance of having high performance. This research confirms, to an extent, the existence of expropriation of minority owners by the state as a majority owner.

Keywords: agency problems, competition, good governance mechanism, internal rules and restraints, partially privatized SOE performance

JEL Classification: M4, M49

*Corresponding author: Email : hilda.rosieta@ui.ac.id , enjum9@gmail.com

INTRODUCTION

Fortune Global 500 statistics show the proportion of state-owned enterprises (SOE) that have grown from 9% to 23% over the last decade, from 2005 to 2014 (PWC, 2015). Although much of the growth was driven by Chinese SOEs, the data suggests that SOEs have gained global influence and a growing force. Kowalski *et al*. (2013) found that out of the Fortune 2000 companies in 2010-2011, 204 companies (10.2%) have been identified as majority SOEs. Further, the study identified that among the largest SOEs in the world are those belonging to BRIICS countries, of which Indonesia and countries such as Brazil, China, India, Russia and South Africa are a part. In Indonesia, currently, the role of SOEs is the key to the national economy. In the year 2014, SOEs contributed around 40% of the state GDP and employed around 781,760 people. In addition, by the end of December 2014, market capitalization of the 20 listed SOEs held 26.41% of total capitalization of listed shares on the Indonesia Stock Exchange (https://www.export.gov/apex/article2, Mei, 2017). The growing importance of SOEs in the world economy, more specifically when considering Indonesia's position among the BRIICS countries, also the critical role of SOEs in the Indonesian Economy, has increased Indonesian SOEs' importance and therefore makes them an interesting research object.

From the perspectives of agency theory (Jensen and Meckling, 1983), corporate governance of SOEs is problematic mainly for two reasons. First, the state has a conflicting double role as owner and as regulator in the market in which they operate. Accordingly, when SOEs are inefficient, the state, as regulator, is capable of influencing the government to protect them from market discipline mechanisms such mergers, acquisition and liquidation. This could compromise the role of the state in the society which is expected to maintain market efficiency (Megginson and Netter, 2001). Second, the state, as the owner, often provides conflicting objectives for SOEs to pursue: commercial objectives and social objectives (Sapington and Sidak, 2009). For this reason, SOEs are often perceived as inefficient and having low profitability. Transformation of ownership from the state to private entities is seen as the alternative solution to overcoming the SOE agency problem and to improving their financial performance. However, empirical evidence regarding the effectiveness of privatization on performance are mixed (Dharwadkar *et al*., 2000).

The recent studies on the association between privatization and performance, which have been done mostly in China (Wei and Varela, 2003; Sun and Tong, 2003; Jefferson and Su, 2006; Ng *et al*., 2006), show mixed results (i.e., privatization is positively/negatively associated or not associated with privatized SOE performance). However, a previous study done by Mohan (2001) provides thorough and robust explanations for the mixed results across contexts regarding the effect of privatization on performance. He reviewed research on privatization conducted in both developed and developing countries during the 1990s, just after the privatization waves began in the UK. He concluded that agency problems under state ownership are not always more severe compared to private ownership. In other words, privatization does not always lead to better performance. Besides ownership structure, some factors, such as the condition of law enforcement, corporate governance and capital market development, are among the significant factors that determine privatized SOEs' performance. Although he used extensive samples from developed and developing countries, Mohan's study (2001) did not go further in investigating specifically how those factors affect privatized SOEs' performance. Using SOEs listed in various countries, Chang and Boontham (2017), to some extent, addressed the research issue of how privatization affects performance. Accordingly, they found that the association between the speed of state ownership relinquishment and privatized SOEs' performance has an inverted U-shape. However, although Chang and Boontham's (2017) research did slightly mention the agency problem, discussions regarding how Good Governance (GG) could affect performance are absent.

This research tries to fill the gaps of previous studies on the associations between privatization and performance by offering explanations on the unique SOE agency problem and how GG could affect privatized SOEs' performance. SOEs hold a strategic role in Indonesia, not only economically, but also politically (Theverton *et al*., 1998). The political role of Indonesian SOEs is consistent with article 33 paragraph 3 of the Indonesian Constitution, which states that:

> *"productions sectors critical for the national interest and affect public welfare shall be controlled by the State"*

Essentially, if privatization is associated with better performance, then, it is supposed to be consistent with national interests and public welfare. Therefore, investigating factors associated with successful privatization that lead to better SOE performance is an important issue in Indonesian settings. This research argues that due to unique agency problems, not only does Good Corporate Governance (GCG) affect privatized SOEs' performance (Mohan, 2001), but most importantly, the GG mechanism is the way to achieve better performance.

This research contributes to the literature by providing a real case of the unique SOE agency problem of facing conflicting objectives between commercial and social orientation, which is deeply rooted in Indonesia. Further, this research offers some explanations on how the GG mechanism affects privatised SOEs' performance. This research is important, as SOEs' influence and economic force are growing globally, as suggested by the BRIIC countries, of which Indonesia is one, phenomenon (Kowalski *et al*., 2013).

The paper is organized as follows. The first section is the Literature Review that covers the issue of development of GG in Indonesia within the context of the study, the agency problem in privatized SOEs, the GG mechanism and SOE performance. Then, the methodology sections are presented consecutively as follows: Hypotheses Development, Research Design, Empirical Results and Discussion. The paper ends with the Conclusions, including research implications and suggestions for future research development.

LITERATURE REVIEW

Development of the GG Mechanism in Indonesia

Definitions of governance are provided by several prominent institutions, including World Bank, UNDP, OECD, Institute of Governance - Ottawa, Commission on Global Governance, International Institute of Administrative Sciences and the Tokyo Institute of Technology (Weiss, 2000). Of all the definitions provided, this research uses the one provided by World Bank, as follows:

> *"Governance is defined as the manner in which power is exercised in the management of a country's economic and social resources". (Weiss, 2000, p. 797)*

Das (2001) evaluated the result of corporate restructuring and reform post-Asian Crisis across countries, including Indonesia, up to the first quarter of 2001. Among the interesting conclusions of his study was that some key areas of governance needed further improvements. One of the important improvements necessary for successful GG implementation is the governance mechanism, which consists of three key elements:

> *"(i) Internal rules and restraints (for example, internal accounting and auditing systems, independence of the judiciary and the central bank, civil service and budgeting rules); (ii) "Voice" and partnership (for example, public-private deliberation councils, and service delivery surveys to solicit client feedback); and (iii) Competition (for example, competitive social service delivery, private participation in infrastructure, alternative dispute resolution mechanisms, and outright privatization of certain market-driven activities).* (Public Sector Group, PREM Network, 2000)

In the area of Internal Rules and Restraints (IRR) as the first element of the GG mechanism, Indonesia has strengthened Corporate Governance Practice by introducing the Limited Liability Decree No.40/2007, which is aimed at increasing the effectiveness of the supervisory role of independent directors. In addition, Indonesia has been adopting international standards for both accounting (i.e., International Financial Accounting Standard – IFRS) as well as auditing (International Standard on Auditing – ISA).

Voice and partnership are the second elements of the GG mechanism and have been significantly improved in Indonesia mainly through increased freedom of press. Among the most important improvements is Law No.40 of 1999. Accordingly, press independence is protected by law, but at the same time the law also defines the principle, function, right, obligation and role of press in society. In addition, the law encourages the public to participate in developing press independence and to assure public right to obtain accurate and quality information.

Competition, as the third key element of GG, started to improve in Indonesia post-Asian Crisis during 1997/1998. Provision of public infrastructure was opened for private participation through transparent and competitive bidding (Das, 2001). Later, monopoly practices and unfair business competition were prohibited in Indonesia, as stated in Law No. 5 of 1999.

This research limits the scope on the first (i.e., IRR) and third (i.e., Competition) elements only, since the second element of GG (i.e., Voice and Partnership) is argued to be only remotely associated with SOE performance.

Agency Problem in Privatised SOEs

Considering Hodge's (2000) definition regarding privatization, this research defines privatization as transferring part of the state ownership to the public via the capital market. In some cases, such as in Indonesia, the state still holds a relatively high proportion of ownership, as only a small proportion of ownership is transferred to the public via IPO. Therefore, the conventional agency problem between principal agents is not applied in the privatized SOE context, but more on the problem between the public as a minority interest and the state as majority holder, or more often as controlling interest.

Generally, managerial perquisite consumption (i.e., discretions used by managers to enhance non-salary income and other on-the-job consumptions for their self-interest) and entrenchment (i.e., managers' actions aimed to reduce the effectiveness of mechanisms to control their behavior) are the form taken by agency problems found in private entities (Dharwadkar *et al*., 2000).

Besides the conventional agency problem due to principal–agent goal incongruence, the agency problem in privatized SOEs is more in conflicts of interest between principals (i.e., minority interest versus the state as controlling interest) and relates to the expropriation of minority interest (Cho, 1999). Accordingly, minority owners' right to appropriate returns on their investment is deprived by the controlling majority owner (Mork, Shleifer, and Vishny, 1988). For that reason, using ordinary methods (i.e., property rights contracts, incentives, compensation and monitoring systems) to overcome agency problems in the privatized SOEs would not be effective. This research argues that focusing on GG issues is the way to overcome the privatized SOE agency problem, as suggested by some previous studies, such as those done by Yaacob and Basiuni (2014), He *et al*. (2015), Khongmalai *et al*. (2009) and Dharwadkar *et al*. (2000).

GG Mechanism and SOE Performance

Considering the issues of minority interest expropriation in privatized SOEs, this research focuses on financial performance as the primary indicator for capital market inventors as minority interests. One of the reasons for the majority owner to expropriate minority interest is the conflicting double role of the state as the owner. The state also serves as regulator, who is supposed to maintain market efficiency. In this setting, when SOEs are inefficient, the state, as owner and regulator, is capable of influencing the government to protect the firm from market discipline mechanisms such as mergers, acquisition and liquidation. The GG mechanism is argued to be the solution for solving the privatized SOE agency problem, so that ideally, the minority interest could obtain their right to have optimal investment returns free from expropriation by the state as the owner of controlling interest.

Expropriation of minority interest allows privatized SOE managers to focus more on non-financial rather than financial objectives. Hence, managers' compensation and incentive systems are loosely tight to firms' performance, resulting in low motivation to achieve high firm performance. Moreover, SOEs' social objectives are often used by management as an escape clause for the firms' inefficiency and low performance. IRR, as the first element of the GG mechanism, is expected to create better monitoring mechanisms, incentives and reward systems. Therefore, interest alignment between SOE management and investors' interests with regard to firm performance would be improved.

The efficiency issues are derived from the assumption of pareto-optimal competitive equilibrium, in which the competitive market would continue to facilitate exchanges until the optimal level of efficiency is reached. Arguably, without the competitive market, exchanges might be limited, resulting in inefficient economic allocation in society. This research argues that privatization will not necessarily lead to better performance, unless it was facilitated by competition as one of the key elements of the GG mechanism.

HYPOTHESES DEVELOPMENT

The Effect of Internal Rules and Restraint on Privatized SOE Performance

Privatization drives the state as regulator to focus more on the main role of government in the economy, creating regulations supportive to market efficiency. Hence, privatization improves IRR, which provides incentives for the state to produce the right regulations, but at the same time, it also motivates privatized SOEs to focus on commercial objectives. This research covers organizational restructuring, agency costs (i.e., management decisions in the area of investment effectiveness and operating efficiency) and BOC oversight effectiveness as variables of IRR.

Organizational Restructuring and Privatised SOE Performance

Following privatization, deregulations of the real market escalate market competition and bring pressures to privatized firms. Aimed at surviving the changing and competitive business environment, most of the privatized entities undergo a certain degree of organizational restructuring (Kang and Shidvasani, 1995; Roland and Sekkat, 2000; Chong and Lopez-de-Silanes, 2002). The expected result of restructuring is increased efficiency of the privatized firms, which then allows the firms to achieve better performance.

If privatization improves IRR as a key element of the GG mechanism, and the state introduces new regulations to increase market efficiency accordingly, SOEs have to adjust their organisational structure to a new level of market efficiency. The first hypothesis drawn from this argument is presented below:

H1: For privatized SOEs, organizational restructuring is associated with the likelihood of higher performance.

Agency Costs and Privatised SOE Performance

Under private ownership, based on agency relationship arrangement, managers are bound by the contract to run the firm on behalf of the owner (Jensen and Meckling, 1983). Accordingly, due to economic self-interest as well as asymmetric information favourable to managers, managers do not always act in the best interests of the owner. This condition leads to the existence of agency cost, in which, due to managers' suboptimal decisions, the owner has to bear the consequences of having a firm value lower than the value if the firm was managed by him/herself. This research argues that operating efficiency and investment effectiveness are some forms of agency cost (i.e., managers' decisions that significantly influence firms' performance, yet, are often used by managers to serve their self-interests at the cost of firm value).

Privatization of SOEs puts the firm as the subject of property rights of assets (Alchian, 1977) and capital market discipline, hence, they provide the necessary incentive for investors to monitor firms' performance and make investment decisions. For SOE managers, increased market discipline and investor monitoring motivate them to increase the efficiency of the agency cost, which leads to high firm value. However, such activities would not be possible without an adequate governance mechanism, most particularly, IRR (Public Sector Group, PREM Network, 2000). On the other hand, SOEs may also be pressured to accommodate social objectives at the cost of firm value. This relates to the findings of Theverton *et al*. (1998), which suggest that in Indonesia, SOEs hold a strategic role not only economically, but also politically.

From this argument, therefore, this research proposes Hypothesis 2 as follows:

H2a: For privatized SOEs, investment effectiveness is positively associated with the likelihood of higher performance.

H2b: For privatized SOEs, operating efficiency is positively associated with the likelihood of higher performance.

Board of Commissioners (BOC) Oversight Effectiveness and Privatised SOEs' Performance Level

In the late 1990s, most Asian countries, including Indonesia, suffered an economic crisis related to weak corporate governance practices (Das, 2001). Responding to the circumstances, Indonesia developed reforms in the area of business regulations. One of the most important reforms was the introduction of Limited Liability Decree No.40/2007 (i.e., UU PT 40/2007), in which the supervisory function of the Board of Commissioner (BOC) (i.e., Independent Directors in one tier board - corporate governance system) is strengthened.

Under this decree, the BOC has better access to the internal sources of firms' information, hence reducing asymmetric information favourable to managers (i.e., Board of Directors - BOD). A well-informed BOC is expected to be more effective in conducting their supervisory role. In addition, the decree stated that despite the BOC's limited role as a supervisory body, the BOC and BOD have equal accountability before the law. This regulation provides strong incentives for the BOC to apply effective supervisions. Otherwise, they have to bear the negative consequences of the managers' opportunistic behaviour. Accordingly, BOC oversight as one of the GCG practices would be positively associated with performance (Bhagat and Bolton, 2008; Nur'ainy *et al*., 2013). However, BOC empowerment allows them to apply excessive supervisory control that might create difficulties for the BOD in effectively running the firms. In this case, the decree would have an adverse effect on performance, meaning that the GCG practices would be negatively associated with firms' performance (Bauer *et al*., 2004).

If the GCG regulations increase (decrease) effectiveness of the BOC's supervisory control, and increased (decreased) supervisory control positively (negatively) associated with firms' performance, hence, the third hypothesis provided is presented below:

H3: For privatized SOEs, the effectiveness of BOC supervisory control is associated with the likelihood of higher performance.

The Effect of Competition on Privatized SOEs Performance

Privatization reduces state domination and increases private participation in the market, which leads to improved competition. Ultimately, the competitive market is expected to provide incentives for privatized SOE managers to achieve high performance. In addition, considering the state as a controlling owner, SOEs often act as pioneers. Therefore, privatized SOEs tend to have a strong market base in certain industries relative to their competitors. Logically, if the commercial objectives are placed as the primary objective, then market domination would result high firm value consistent with privatized SOEs' minority interests. However, the competitive advantage of market domination, strengthened by proper incentives for management to deliver high firm value, would be surpassed by expropriation of minority interest when the state, as the controlling interest, has a social objectives agenda contradictory to commercial objectives. This research covers state ownership and market domination as variables of Competition.

State Ownership and Privatised SOE Performance

A high proportion of state ownership leads to high state domination of the firm to serve social objectives, such as: job creation and rural and technological development, which often contradict profit objectives as important indicators of firms' performance. Hence, reducing state ownership is argued to be the key factor in improving privatized SOEs' performance (Boycko and Shleifer dan Vishny, 1996; Paudyal, Saadouni, and Briston, 1998; Boubakri and Cosset, 1998; Eckel *et al*. 1997; Megginson *et al*., 1994; D'Souza *et al*., 2007). However, the positive side of state domination relates to the degree of market monopoly owned by the state. In this condition, state dominations might be positively associated with SOEs' performance, as the firms are likely to have a bigger market share compared to their competitors.

If privatization reduces state ownership, and state ownership on one hand is associated with state domination to serve the social objective, while on the other hand state ownership is also associated with bigger and stronger market share, then the fifth hypothesis is as follows:

H4: For privatized SOEs, state ownership is associated with the likelihood of high performance.

Market Domination and Privatised SOE Performance

Ramamurti (1997), Public Sector Group, PREM Network (2000), Vickers dan Yarrow (1988), Boubakri *et al*. (2005) and D'Souza *et al*. (2005) provide some empirical evidence suggesting that competition is one of the key factors that strengthens the positive effect of privatization on firms' performance. Privatization through Initial Public Offering (IPO) via the capital market is often consecutively followed by deregulation of the product/services market or the real market. Increased competition in the real market would make it more difficult for SOEs to achieve high performance. On the other hand, investors of the listed firms demand high firm performance and they make arbitrage investment decisions accordingly. Hence, the increased competition of the real market faced by listed firms provides strong incentive for managers to deliver high performance to attract investors. In addition, privatised SOEs in Indonesia tend to have stronger market base compared to their competitors. Based on these arguments, the research proposes the following hypothesis:

H5: *For privatized SOEs, market domination is positively associated with the likelihood of higher performance.*

RESEARCH DESIGN

The Sample

This research observes Indonesian SOEs that were privatized through the capital market by IPO during the years 1991 to 2010, or covering a 20-year time period. The data used mostly comes from the financial statements provided by IDX, which consist of audited financial statements published by Bapepam-LK (i.e., the Capital Market and Financial Institutions Supervisory Body). In addition, this research also uses the Indonesian Capital Market Directory, internal sources of the Ministry of Indonesian SOE, as well as individual websites of the privatized firms as data sources. The year of privatization is defined as the year of the first IPO.

Observation covers the following years after the year of privatization (D'Souza *et al*., 2005, 2007; Boubakri *et al*., 2004, 2005a, 2005b) up to the year 2014. More specific sample selection criteria are as follows:

i. Indonesian SOEs that have complete data during the post-privatization years.

ii. Listed in ISX during the years 1991 to 2014.

iii. Reporting period covers 1 January to 31 December.

Based on the sample selection criteria, 21 firms were identified using an unbalanced panel data of 24 years of observation from 1991 to 2014. After considering the data completeness and data outliers, 218 firm-years data were used for hypotheses testing. The list of SOEs included in this research sample is presented in Table 1 below.

Table 1 Privatised SOEs listed in the Indonesia Stock Exchange (IDX)
Used as the Research Sample

No.	Date of IPO	Company's Name	IDX Code
1	08 July 1991	PT. Semen Indonesia (Persero) Tbk, d/h Semen Gresik (Persero) Tbk	SMGR
2	19 Oct. 1994	PT. INDOSAT*	ISAT
3	19 Oct. 1995	PT Tambang Timah (Persero) Tbk	TINS
4	14 Nov. 1995	PT. Telekomunikasi Indonesia (Persero) Tbk	TLKM
5	25 Nov 1996	PT Bank Negara Indonesia (Persero) Tbk	BBNI
6	27 Nov 1997	PT Aneka Tambang (Persero) Tbk	ANTM
7	17-Apr-01	PT. Kimia Farma (Persero) Tbk	KAEF
8	4-Jul-01	PT. Indo Farma (Persero) Tbk	INAF
9	22-Dec-02	PT. Bukit Asam (Persero) Tbk	PTBA

Table 1 (Cont.)

10	14-Jul-03	PT. Bank Mandiri (Persero) Tbk	BMRI
11	10-Nov-03	PT Bank Rakyat Indonesia (Persero) Tbk	BBRI
12	15-Dec-03	PT. Perusahaan Gas Negara (Persero) Tbk	PGAS
13	18-Mar-04	PT. Adhi Karya (Persero) Tbk	ADHI
15	29-Oct-07	PT. Wijaya Karya (Persero) Tbk	WIKA
14	12-Nov-07	PT Jasa Marga (Persero) Tbk	JSMR
16	17-Dec-07	PT Bank Tabungan Negara (Persero) Tbk	BBTN
17	9-Feb-10	PT Pembangunan Perumahan (Persero) Tbk	PTPP
18	10-Nov-10	PT. Krakatau Steel (Persero) Tbk	KRAS
19	11-Feb-11	PT. Garuda Indonesia	GIAA
20	19-Dec-12	PT Waskita Karya (Persero) Tbk	WSKT
21	28-Jun-13	PT Semen Baturaja (Persoro) Tbk	SMBR

* PT Indosat has been sold to strategic partner on 15 Des 2002, hence become non SOEs firm since then.

Model and Variables

To test the hypotheses, this research used the following binary logistic regression model:

$$\text{Prob.(Performance=1)i,t} = f(\beta 1\ REST + \beta 2\ AGCOST_{ATR} + \beta 3\ AGCOST_{EFF} + \beta 4\ CGRULE + \beta 5\ GOVT + \beta 6\ MDOM + \beta 7\ SIZE_{TS} + \beta 8\ Bank_{Non})i,t \quad (1)$$

The empirical model suggests that the likelihood of privatised SOEs i at time t of having high performance (Prob. (Performance = 1)i,t is associated with the GG mechanism, in particular the elements of (i) IRR and (ii) Competition. Further, four variables are covered for IRR, namely: Organisational Restructuring (REST), Investment Effectiveness (AGCOST_ATR), Operating Efficiency (AGCOST_EFF), and BOC Oversight Effectiveness (CGRULE). In addition, Competition consists of two variables: Government Ownership (GOVT) and Market Domination (MDOM). Lastly, this research controls the effect of size on the performance by Sales Volume (SIZE_TS) and Type of Industry, whether the firm belongs to a bank or non-bank industry (Bank_Non). The binary logistic model is used to overcome normality as well as heteroscedasticity issues found when the data is tested using the linear regression model.

Measurements of the Dependent Variable

SOEs' performance as a dependent variable is measured by a dummy variable, coded 1 for high performance group when the PBV ratio is above average, and 0 for the group below average.

Measurements of Independent Variables: IRR

IRR cover four variables. The first variable is Organisation Restructuring (REST), defined as the existence of assets and ownership restructuring, financial restructuring and other type of restructuring (Weston *et al*., 2004) as suggested in the disclosures of financial statements or other types of formal publication. The measure is a dummy variable, 1 if organization restructuring is identified and 0 otherwise (D'Souza *et al*., 2007)

The second variable is manager's decision in the area of Investment Effectiveness measured by Assets Turnover, calculated as the ratio of total sales for the year to average total assets at the beginning and the end of the year.

The third variable is the manager's decision in the area Operating Efficiency. A highly efficient operation suggests that managers consume the resources mainly to create revenue, and hence, would positively associate with firms' performance. This research measures Operating Efficiency by ratio of operating expenses to total revenue for the year. Consequently, higher Operating Efficiency is indicated by a lower ratio, which is associated with higher performance. Therefore, to maintain the logical consistency as stated in Hypothesis 2b, this research converts the ratio into a negative value. In this way, a higher level of efficiency is represented by a higher ratio value.

The fourth variable is BOC oversight effectiveness (CGRULE). The introduction of Limited Liability Decree No. 40/2007 has significantly empowered the BOC to perform oversight functions. The measurement is a dummy variable, 1 for the period of post-implementation of the Decree and 0 otherwise.

Measurements of Independent Variables: Competition

This research includes two variables in Competition. The first variable is Government Ownership (GOVT). A lower proportion of state ownership indicates lower tendency of state domination, which means a higher degree of market competition. Accordingly, GOVT is measured by the percentage of state ownership in the privatized SOEs.

The second variable is market domination. Higher market concentration indicates higher domination of SOEs within a particular industry, and hence, lower market competition. This research measures market domination using the *Hirschman-Herfindahl Index*, which indicates the degree of market domination of firm i within any particular industry (Huang *et al*., 2017). The following formula is used to determine the index:

$$HHI = \sum_{t=1}^{n} (Zi / Zt)$$

Zi: yearly sales of firm i;

Zt: total yearly sales of the competitor firms belonging to a particular industry

Due to data availability, the competitor firms covers only listed companies. However, in term of sales volume, these firms control a significant proportion of the whole market in any particular industry.

Measurements of Control Variables: Firm's Size and Banks/Non-bank Industry Type

Bigger size firms tend to operate closer to the economies of scale level, and hence they are more likely to have a higher level of efficiency, and thus better performance. Therefore, this research controls for the effect of economic scale on firms' performance by using LnTotal Sales as a measure.

This research includes banks and non-bank firms as a sample. Due to its function as a financial intermediary and its important role in national financial stability, generally the banking industry is highly regulated. One of the regulatory consequences is that banks' performance is relatively more stable compared to other industries. In addition, a few Indonesian SOE banks have a relatively bigger size (i.e., mean of Ln Sales is 23.19 for banks and 22.40 for non-banks, statistically significant at p value less than 1%) and higher market domination (i.e., mean of HHI is 34.24% for banks and 19.02% for non-banks, statistically significant at p value less than 1%) compared to non-bank SOEs. For that reason, this research also controls for the industry type, which differentiates banks from non-bank firms. A dummy variable was used to differentiate industry types, coded 1 for banks and 0 otherwise.

EMPIRICAL RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistics for categorical variables used in this research are presented in Table 2 below.

Table 2 Frequency Distribution of Categorical Variable

Variable	Description	1		0	
		Freq.	%	Freq.	%
Class _PBV	Performance; 1=high; 0= low	93	42.08	128	57.92
CGRULE	BOC Effectiveness; 1 = effective; 0 = ineffective	101	45.70	120	54.30
REST	Organisation Restructuring; 1 = occurred; 0 = did not occurred	106	47.96	115	52.04
Bank_Non	Types of Industry; 1 = banks; 0 = non-banks	45	53.7	173	46.3
Total sample is 218 firm year or 100%					

Table 2 shows that the proportion of high performance data (44,0%) is slightly lower than low performance data (56%). In addition, 53.7% of the sample has effective BOC oversight or belongs to the period prior to the introduction of Limited Liability Decree No. 40/2007. Of the sample, 46.3% belongs to the ineffective group. Considering organisational restructuring, the proportion is almost perfectly balanced: 50.5% of the sample conducted organisational restructuring after privatization and 49.5% did not do the restructuring. Most of the data items used in this research are from non-bank SOEs, which represent 79.4% of the sample, while bank SOEs only cover 20.6%. Descriptive statistics for non-categorical variables used in this research are shown in the following Table 3.

Table 3 Statistic Descriptive of Non-Categorical Independent Variable

Variable	Minimum	Maximum	Mean	Std. Deviation	Skewness
GOVT	0.15	0.99	0.66	0.13	0.56
MDOM	0.02	0.81	0.26	0.21	0.99
AGCOST_ATR	0.09	2.06	0.73	0.53	0.51
AGCOST_EFF	0.43	1.25	0.80	0.15	0.05
SIZE_TS	18.93	25.22	22.75	1.28	-0.27

Descriptive statistics suggest that although the SOEs have been privatised, the proportion of GOVT is still relatively high (i.e., 66%). In general, SOEs deal with a relatively competitive market with a mean of HHI Index of 26%. The mean value of AGCOST_ATR equal to 73% means that privatised SOEs could only generate revenue of 73% of their total assets. Considering operating efficiency, the mean value of AGCOST_EFF indicates that SOEs' operating costs have consumed 80% of their revenue. This research converts the value of Total Sales into natural logistic form (Ln) to get levels with digit numbers of other independent variables used in the model.

Multivariate Analysis

Having treated the data outlier, the empirical results of the hypotheses testing are presented in the following Table 4.

Table 4 The Results of Empirical Tests

Independent Variable	Prob. (Performance = 1) = f (β0 + β1 REST + β2 AGCOST_ATR + β3 AGCOST_EFF + β4 CGRULE + β5 GOVT + β6 MDOM +β8 SIZE_TS + Bank_Non)									
	Exp. Sign.	Model 1			Model 2			Model 3		
		Key Elements of GG Mechanism covering Internal Rules and Restraints + Competition			Key Elements of GG Mechanism covering Internal Rules and Restraint Only			Key Elements of GG Mechanism covering Competition Only		
		B		Exp (B)	B		Exp (B)	B		Exp (B)
Constant	+/-	-16.47	**	0.00	-19.26	**	0.00	-14.65	***	0.00
Internal Rules and Restraint										
REST	+/-	1.20	***	3.33	1.21	***	3.33	NA		NA
AGCOST_ATR	+	0.38		1.46	0.28	*	3.33	NA		NA
AGCOST_EFF	+	0.63	***	1.07	0.65	***	1.07	NA		NA
CGRULE	+/-	0.04		1.04	-0.10		0.91	NA		NA
Competition										
GOVT	+/-	-0.53	*	0.59	NA		NA	-1.77		0.17
MDOM	+	0.68	**	1.97	NA		NA	2.06	**	7.85

Table 4 (Cont.)

Control Variable										
SIZE_TS	+	0.86	***	2.36	0.97	***	2.64	0.62	***	1.86
Bank_Non	+/-	1.24		0.00	1.57	**	4.88	1.22	**	3.38
Binary Logistic Statistic										
Omnibus Tests of Model Coefficients		0.00%			0.00%			0.00%		
Nagelkerke R Square		44.52%			44.34%			27.29%		
Hosmer and Lemeshow Test		36.84%			5.00%			68.69%		
Overall Percentage Correct - The Model		75.22%			76.60%			69.72%		

*** : sig. at p <=1%; **: sig. at p <=5%; * ; sig. at p <=10%

Dependent Var : Prob. (Performance =1) measure by Odds Ratio of High to Low Performance Level. The performance is measure by Price to Book Value ratio, Coded 1 for High Performance when the PBV value is above the average, and 0 otherwise.

Independent Var. : (i) REST : Corporate Restructuring -Dummy variable, Coded 1 for the existence of organization restructuring and 0 otherwise; (ii) AGCOST_ATR: Investment Effectiveness measured by Assets Turnover Ratio; (iii) AGCOST_EFF: Operating Efficiency measured by Ratio of Operating expenses to Total Revenue; (iv) CGRULE : Introduction of Limited Liability Decree No. 40/2007 - Dummy variable, Coded 1 for the period of post Decree implementation and 0 otherwise; (v) GOVT: Government Ownership - Percentage of state ownership; (vi) MDOM : Market Domination - Hirschman-Herfindahl Index, indicate degree of market domination of firm i within any particular industry ; (vii) SIZE_TS : firms' size measured by Total Sales ; (viii) Bank_Non : Dummy for Industry Type, Coded 1 for Banks and 0 otherwise

For robustness purpose, this research tested the empirical model three times: (i) full model (Model 1a); (ii) the model that covers variables of IRR only (Model 1b); and (iii) the model that covers variables of Competition only (Model 1c). Empirical evidence shows that the models are statistically significant, as indicated by the results of the p value of Omnibus Tests of Model Coefficients, which are less than 1% all over. The test results of Nigelkerke R-square, which range from 27.29% to 44.52%, suggest that the models are relatively powerful. This is consistent with the Overall Percentage Correct of the Model that spread from the value of 69.72% to 75.22%.

The result of the Hosmer and Lemeshow test for fit (HL fit test) show that full Model 1a is 36.84%, suggesting that no significant difference between model prediction and observation exists. However, the HL fit test result for Model 1b is relatively low (i.e., 5.00% or equal to the threshold of statistical significant of 5%) indicating significant difference between Model 1b prediction and observation. Contrasting to the HL fit test result of Model 1b, the HL fit test result of Model 1c reaches the level high of 68.69%.

The results of the hypotheses testing is suggested by the p value of Beta as well as the Odds Ratio (OR), which is denoted as Exp(β) in Table 4 above. This research defines OR as the odds of SOEs having high performance relative to 1. In general, the likelihood (i.e., percent change) of SOEs having high performance is equal to (Odds Ratio – 1)*100%. Therefore, the value of OR indicates the way independent variables associated with percent change of Odds for SOEs of having high performance in three different ways: (i) between 0 and less than 1 indicates negative association, (ii) equal to one suggests no association, and (iii) more than one indicates positive association.

Referring to Model 1a and Model 1b, two independent variables of IRR are found to be statistically significant. These are:

- REST with β equal to 1.20 in Model 1 and 1.21 in Model 2, p value less than 1% and OR equal to 3.33 in both Model 1a Model 1b, meaning that each event of organizational restructuring increases the likelihood of privatized SOEs having high performance by around 20% to 21% compared to those that do not do the restructuring.
- AGCOST_EFF, with β equal to 0.63 in Model 1a and 0.65 in Model 1b, both have p value less than 1% and OR equal to 1.07 in both Models, suggesting that for every increase of Operating Efficiency ratio, the odds of having high performance increase by around 63% to 65% .

Therefore, this research shows the two IRR variables are statistically significant, indicating that H1 and H2b are supported by the data.

As for Competition, the empirical results show that both variables are statistically significant, with the following conditions:

- GOVT variable is statistically significant only in Model 1a with β = -0.53, p value less than 10% and OR = 0.59, suggesting that for each increased percentage of GOVT, the odds of having high performance decrease by 53%.
- MDOM variable is statistically significant in both Model 1a and Model 1c, with β=0.68, p value less than 5% and OR = 1.97 in Model 1a, and also, β=2.06, p value less than 5% and OR = 7.85 in Model 1c, indicating that for each HHI increase in market domination, the odds of having high performance increase by 68% in Model 1 and 206% in Model 1c.
- Accordingly this research suggests that H5 is supported by the data, while H4 is partially supported by Model 1a only.

Looking at the MDOM variable, the coefficient regression is positive only in Model 1c, in which variables related to IRR were excluded from the equation. Arguably, elements of the GG mechanism are substitutions of one another. Therefore, when the elements of IRR are absent, the Competition elements become stronger. This is consistent with the value of coefficient regression and its significance of the MDOM variable, which is changing from +0.66 with a p value higher than 10% in Model 1a to 3,248, with a p value less than 1% in Model 1c. More interestingly, MDOM becomes less statistically significant when it goes together with GOVT in Model 1a. This could be interpreted that state domination reduces the positive effect of market domination on the likelihood of high performance.

Empirical results for control variables are as follows:

- SIZE_TS as a control variable shows consistent results across Models, suggesting that the higher the sales volume, the more likely an SOEs is to have high performance. This result is consistent with economies of scale theory, in which bigger firms tend to be more efficient, and hence are more likely to have high performance.
- With regards to types of industry, partial empirical evidence is suggested by Model 1b and

Model 1c, which means that the banking industry increases the likelihood of SOEs having high performance. Most likely, this is due to the banks' size and market domination, which are significantly bigger that non-bank SOEs.

The Association between IRR with Privatized SOEs Performance

The finding on organizational restructuring is consistent with the theory of privatization that assumes government would maintain market efficiency (Megginson and Netter, 2001) by introducing certain necessary regulations or deregulations. Hence, privatized SOEs need to make some necessary adjustments in organisational structure to deal with the new level of market efficiency, otherwise they fail to become a high performer. This finding is consistent with the findings of previous studies such as that done by Kang and Shidvasani, (1995), Roland and Sekkat (2000) and Chong and Lopez-de-Silanes (2002).

With regards to managers' decisions that affect agency cost, the research finds only Operating Efficiency is associated with the likelihood of high performance, but not with Investment Effectiveness. This can be interpreted as some support for the view regarding effect of privatization on managers' decisions associated with agency cost. Due to the existence of capital market discipline and property right of assets (Alchian, 1977), privatization provides SOEs' managers incentives to deliver high performance, and hence optimize agency cost. However, the results of Investment Effectiveness would most likely to be seen in the long run, so, most likely they would be enjoyed by the consecutive managers in the future. On the other hand, Operating Efficiency has instant effect on earnings level as a performance indicator that is highly appreciated by capital market investors. Therefore, the benefit of Operating Efficiency would most likely be enjoyed by the managers in charge. To some extent, this finding indicates that privatization is a successfully overcome conventional agency problem of the SOEs, in which managers' decisions are in line with principals' interests (i.e., minority shareholder) to achieve high firm value.

The Association between Competition with Privatized SOE Performance

The negative association between government ownership and the likelihood of high performance suggests that the state as the majority owner often burdens SOEs to serve social objectives, which undermines their commercial objectives. Moreover, the positive effect of market domination is weakened when negative effect of government ownership on the likelihood of high performance is working. Accordingly, when the state burdens privatised SOEs with social objectives, the positive effect of competitive advantage of privatised SOEs having a big market share on the likelihood of high performance is decreased. These findings provide support for the existence of unique agency problems faced by the privatised SOEs, namely expropriation of minority interest by the state as the controlling owner. To some extent, the empirical findings on the decreasing positive effect of market domination on the performance of privatised SOEs is consistent with Chang and Boontham's (2017) findings of an inverted-U shape of the associations between the state ownership relinquishment and the performance. Arguably, up to certain point, the positive effect of market domination associated with state ownership might cease and can turn into a negative effect as an ongoing deduction of the state support could be interpreted as an expression of doubt regarding the potential of the newly privatised firm to perform in the future (Chang and Boontham, 2017).

CONCLUSIONS

Motivated by the growing force and influence of SOESs in the global economy (Kowalski *et al*., 2013) and the important role of SOEs in Indonesia both economically and politically (Traverton *et al*., 1998), this research aims to investigate the effect of the GG mechanism on privatised SOEs' performance using agency theory as a framework for analysis. This research has some interesting findings that contribute to literature of SOE privatisation's effect on performance (Wei and Varela, 2003; Sun and Tong, 2003; Jefferson and Su, 2006; Ng *et al*., 2006, Mohan, 2001; Chang and Boontham, 2017).

Considering the development of GG in Indonesia after the Asian Crisis of 1997/1998, this research contributes to SOE privatisation and performance literature by providing empirical evidence for how the GG mechanism affects privatised SOE performance. The empirical evidence shows that the likelihood of privatised SOEs having high performance is positively associated with IRR variables (i.e., Organisational Restructuring and Operating Efficiency) and the Competition variable (i.e., market domination).

Using agency theory, this research shows that privatised SOEs in Indonesia have unique agency problems, namely conventional (Jensen and Meckling, 1983) and specific agency problems (Cho, 1999). IRR, as the first GG mechanism, to certain extent, has successfully overcome the conventional agency problem between agent and minority interest as one of the privatized SOE principals. However, Competition (i.e., market domination) as the third GG mechanism is unable to remedy the agency problem specific to privatized SOEs between capital market investors as minority interests and the state as controlling interest.

Among the most important implications of this research is that in Indonesia, the GG mechanism needs to be developed further to overcome the expropriation of majority interest by the state in privatised SOEs. Article 33 paragraph 3 of the Indonesian Constitution stated that the state shall control production sectors critical to the national interest and that affect public welfare. Naturally, social objectives are often put as priority at the cost of commercial objectives when the state acts as a principal of the privatized SOEs. Therefore, one of the ways to overcome the agency problem in the privatized SOEs is by reducing the state to a non-controlling owner. However, this solution is only open for production sectors that have no critical role for the national interest and that do not affect public welfare; otherwise, it would not be legitimate in Indonesia.

Empirical findings of decreasing the positive effect of market domination, which are consistent with Chang and Boontham's (2017) findings, implied that SOEs privatization should be done with caution, as too much or too little state ownership could be harmful to privatized SOEs performance.

Due to its limitations, this study could be developed further. One of the limitations is that this research focuses only on SOE privatization in the Indonesian context only, despite the growing importance of SOEs in the global economy. Further, research should address the global context, especially investigating whether the unique agency problems occurring in Indonesia are also applied in other BRIICS countries, along with investigation on how the GG mechanism affects privatized SOEs' performance in other BRIICS countries.

Another limitation is concerning how SOE privatization is conducted in Indonesia. This research focuses only on privatization done by way of IPO through the capital market. Further research should investigate the types of agency problems through other ways of transferring ownership, such as direct placement by strategic partner or corporate actions (i.e., merger/ acquisition with private companies).

REFERENCES

Alchian, Armen,1977, 'Some Economics of Property Rights', *Liberty Press*, 127-149

Astami, EW, Tower, G, Rusmin, R & Neilson, J, 2010, 'The effect of privatization on performance of state-owned-enterprises in Indonesia', *Asian Review of Accounting,* Vol.18, No.1, pp. 5-19

Bauer, R, Guenster, N, & Otten, R, 2004, 'Empirical evidence on corporate governance in Europe: The effect on stock returns, firm value and performance', *Journal of Asset Management*

Bhagat, S & Bolton, B,2008, 'Corporate governance and firm performance', *Journal of Corporate Finance*, Vol.14, pp. 257-273

Boubakri, N, & Cosset,JC ,1998, 'The Financial and Operating Performance of Newly Privatized Firms: Evidence from Developing Countries', *Journal of Finance,* Vol.53, pp. 1,081-1,110

Boubakri, N, Cosset, JC, & Guedhami, O, 2004, 'Privatization, Corporate Governance and Economic Environment: Firm-Level Evidence From Asia', *Pacific-Basin Finance Journal,* Vol.12, pp. 65-90

Boubakri, N, Cosset, JC, & Guedhami, O, 2005, 'Liberalization, Corporate Governance and the Performance of Privatized Firms in Developing Countries, *Journal of Corporate Finance,* Vol.11, pp. 767 - 790

Boubakri, N, Cosset, JC, & Guedhami, O, 2005, 'Post Privatization Corporate Governance: The Role of Ownership Structure and Investor Protection', *Journal of Financial Economics,* Vol.76, pp. 369 - 399

Dharwadkar, R, George, G, and Brandes, P, 2000, 'Privatization in Emerging Economies: an Agency Theory Perspective', *Academy of Management Review,* Vol. 25, No. 3, pp. 650 - 669

Bauer, R, Guenster, N, & Otten, R, 2004, 'Empirical evidence on corporate governance in Europe : The effect of stock returns, firm value and performance', *Journal of Asset Management,* Vol. 5, No 2, pp. 91 -104

Bhagat, S & Bolton, B, 2008, 'Corporate governance and firm performance', *Journal of Corporate Finance,* Vol. 14, No. 3, pp. 257-273.

Boycko, M , Shleifer , A & Vishny, R, 1996, 'A Theory Privatization', Economic Journal, pp.309-319

Boubakri, N. and Cosset, J.C., 1998, 'The Financial and Operating Performance of Newly Privatised Firms : Evidence from Developing Countries', *The Journal of Finance*, Vol. 53, No. 3, pp. 1081-1110

Boubakri, N, Cosset, J. C., & Guedhami,O, 2004, 'Privatization, Corporate Governance and Economic Environment: Firm-Level Evidence From Asia', *Pacific-Basin Finance Journal,* Vol. 12, pp. 65-90

Boubakri, N, Cosset, J.C , Guedhami, O., 2005, 'Postprivatization corporate governance: The role of ownership structure and investor protection', *Journal of Financial Economics,* Vol. 76, pp. 369-399

Boubakri, N, Cosset, J. C. & Guedhami, O., 2005, 'Liberalization, Corporate Governance and the Performance of Privatized Firms in Developing Countries', *Journal of Corporate Finance,* Vol. 11, pp. 767-790

Bruggink, TH, 1982, 'Public Versus Private Enterprise in The Municipal Water Industry: A Comparison of Operating Costs', *Quarterly Review of Economics and Business,* Vol.22, pp. 111 - 125

Chang, Shao-Chi and Boontham, W., 2017, 'Post-privatisation Speed of State Ownership Relinquishment : Determinants and Influence on Firm Performance', *North American Journal of Economics and Finance,* Vol. 41, pp. 82-96

Cho, N, 1999, Minority Shareholders seek reforms to protect rights in emerging markets, *Wall Street Journal,* Vol. September 13, pp. A.39

Chong, A., dan Lopez-de-Silanes, F., 2002, 'Privatization and Labour Force Restructuring Around the World', *World Bank Policy Research Working Paper, No. 2884,* Washington DC

Das, DK, 2001, 'Corporate Governance and Restructuring : A Post-Crisis Asian Perspective', Asia Pacific *Journal of Economic and Business,* Vol.5, No. 1, pp. 5-25

DeAlessi, L, 1974, 'An Economic Analysis of Government Ownership and Regulation: Theory and Evidence from the Electric Power Industry', *Public Choice,* Vol.19, pp. 1-42

D'Souza, J, & Megginson, WL, 1999, 'The financial and Operating Performance of Newly Privatized Firms in 1990s', *Journal of Finance* Vol.54, pp. 1397-1438

D'Souza, J, & Megginson, WL, 1999, 'The Financial and Operating Performance of Privatized Firms During 1990s', *The Journal of Finance,* Vol. LIV pp. 1397-1435

D'Souza. J, William M, & Robert N, 2005, 'Effect of Institutional and Firm Specific Characteristics on Post-Privatization Performance: Evidence From Developed Countries', *Journal of Corporate Finance*, Vol.11, pp. 747-766

D'Souza. J, William M, dan Robert N, 2007, 'The Effect of Changes in Corporate Governance and Restructurings on Operating Performance: Evidence of Privatizations', *Global Finance Journal*, Vol.18, pp. 157-184

Dharwadkar, R., George G., Brandes P., 2000, 'Privatization in Emerging Economies : An Agency Theory Perspetive', *The Academy of Management Review,* Vol. 25 No. 3, pp. 650 - 669

Eckel, C, Eckel, D, & Singal, V, 1997, 'Privatization and Efficiency: Industry Effect of the Sale of British Airways', *Journal of Financial Economics*, Vol.43, pp. 275-298

Frydman, R, Gray, CW, Hessel, M, & Rapaczyinski, A, 1999, 'Private Ownership and Corporate Performance: Some Lessons from Transition Economies', *Policy Research Paper,* No. 1830*,* World Bank.

Gupta, N, 2005, 'Partial Privatization and Firm Performance', *Journal of Finance,* Vol.60, pp. 987-1015

He, Y, Chiu, Y, Zhang, B, 2015, 'The impact of corporate governance on state-owned and non-state-owned firms efficiency in China, Vol. 33, pp. 252-277

Hodge, GA, 2000, *Privatization: an international review of performance*, Westview Press, Boulder, Colo.

Huang, Y, Xie, E, Li, Y, Reddy KS, 2017, 'Does state ownership facilitate outward FDI of Chinese SOEs? Institutional development, market competition, and the logic of interdependence between governments and SOEs', *International Business Review*, Vol. 26, pp. 176 – 188. Available from Science Direct (31 January 2017)

ICS, 2017, 'Indonesia - Competition from State Owned Enterprises', https://www.export.gov/apex/article2?id=Indonesia-competition-from-state-owned-enterprises, accessed at 30 May 17

Jefferson, GH., Su, J., 2006, 'Privatization and Restructuring in China : Evidence form Shareholding Ownership, 1995-2001., *Journal of Comparative Economics* 3(1), pp.146 - 166

Jensen, M.C. & Meckling, W.H., 1983, 'The Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure', *Journal of Financial and Economics* Vol. 3, pp. 305-360

Kang, J, & Shidvasani, A, 1995, 'Firm Performance, Corporate Governance and Top Executive Turnover in Japan', *Journal of Financial Economics,* Vol.24, pp. 217-254

Khongmalai, O, John CST, Siengthai, S, 2010, 'Empirical evidence of corporate governance in Thai state-owned enterprises', *Corporate Governance,* Vol. 10, No. 5, pp. 617-634

Kowalski, P; Max Buge, Monika Sztajerowska, Matias Egeland (2013). State Owned Enterprises, Trade Effects and Policy Implications. *OECD Trade Policy Papers* No. 147., OECD Publishing.

Laffont, JJ, & Tirole, J, 1993, *A Theory of Incentives in Procurement and Regulation,* The MIT Press. Available from: https://books.google.co.id/books?id=4iH4Z2wbNqAC&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false (June, 2016)

LaPorta, R, Lopez de Silanes, F, Shleiver A, & Vishny RW, 1998, 'Law and Finance', *Journal of Political Economy* Vol.106, pp. 1113-1150

LaPorta, R, dan Lopez de Silanes, F, 1999, 'Benefits of Privatization: Evidence from Mexico', *Quarterly Journal of Economics*, Vol.114, pp. 1193-1242

Megginson, W.L., & Netter, J.M., 2001, 'From State to Market: A Survey of Empirical Studies on Privatization', *Journal of Economic Literature,* Vol.39, pp. 321-389

Megginson, W, Nash, R, Netter, JN, & Poulsen, AB, 2004, 'The Choice of Private Versus Public Capital Markets: Evidence from Privatization', *Journal of Finance*, Vol.49, pp. 403-452

Megginson, WL, Nash, R, van Radenborgh, M, 1994, 'The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis', *Journal of Finance* Vol.49, pp. 403-452

Meyer, RA, 1975, 'Publicly Owned vs Privately Owned Utilities: A Policy Choice', *Review of Economics and Statistics* Vol.57, pp. 391-399

Mohan, TTR, 2001, 'Privatization: Theory and Evidence', *Economic and Political Weekly*, Vol.36, No. 52, pp. 4865-4871

Morck, R, Shleifer, A, & Vishny, RW, 1988, 'Management Ownership and Market Valuation', *Journal of Financial Economics,* Vol. 20, pp. 293 - 315

Ng, A., Yuce, A., Chen, E., 2006, 'State Equity Ownership and Firm Performance : China's Newly Privatized Firms. In : Conference Paper for the 30th Anniversary of the Journal of Banking and Finance, Beijing, China, June 2006.

Nur'ainy, R, Nurcahyo, B, Kurniasih, SA, Sugiharti, B, 2013, 'Implementation of Good Corporate Governance and Its Impact on Corporate Performance: The Mediation Role of Firm Size (Empirical Study from Indonesia)'. *Global Business and Management Research*: 91-104

Park, Y, 1997, 'Privatization and Employment in the Republic of Korea', Geneva: *International Labour Office,* pp.19-38

Paudyal, K, Saadouni, B, & Briston, R, 1998, 'Privatization Initial Public Offering in Malaysia: Initial Premium and Long Term Performance', *Pacific Basin Finance Journal,* Vol.6, No. 52, pp. 1-25

Public Sector Group, Poverty Reduction and Economic Management (PREM) Network, 2000, 'Reforming Public Institutions and Strengthening Governance – A World Bank Strategy', *the International Bank for Reconstruction and Development (IBRD) – The World Bank.* Available from: http://www1.worldbank.org/publicsector/Reforming.pdf (December, 2014)

PWC, 2015, 'State-Owned Enterprises – Catalysts for Public Value Creation?' https://www.pwc.com/gx/en/psrc/publications/assets/pwc-state-owned-enterprise-psrc.pdf, accessed at May 30, 2017

Ramamurti, R., 1997, 'Testing the Limits of Privatization: Argentine Railroads', *World Development* Vol.25, pp. 1973-1993

Ramamurti, R, 1992, 'Why Are Developing Countries Privatizing?', *Journal of International Business Studies,* Vol. 23 No. 2, pp. 225-249

Ramamurti, R, 2000, 'A Multilevel Model of Privatization in Emerging Economies', *Academy of Management Review*, Vol 25 No. 3, pp. 525-550

Roland, G, & Sekkat, K, 2000, 'Managerial Career Concern, Privatization and Restructuring in Transition economies', *European Economic Review* Vol.44, pp. 1857-1872

Rosser, A, 2003, 'Coalitions, Convergence and Corporate Governance Reform in Indonesia', *Third World Quaterly,* Vol.2, pp. 319-337

Sappington, D.E.M. & Sidak, J.G., 2003, 'Incentives for Anticompetitive Behavior by Public Enterprises', *Review of Industrial Organization*, Vol. 22, pp.183-206

Shirley, MM, 2002, 'Experience With Privatization: A New Institutional Economics Perspective', *Journal of African Economies,* Vol. 11, pp. 10-31