

## Governance and Tax Revenue in Asean Countries

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**Abstract:** Tax revenue is influenced by many factors. Existing studies reveal that political stability, level of corruption, quality of the policy, income per capita, share of agriculture to the GDP, and market openness are some of the factors influencing tax revenue. This study aims to analyze the influence of governance by using some indicators, such as political stability, government effectiveness, quality of regulation, law enforcement accountability and control on corruption in tax area through empirical analysis of ASEAN countries. Descriptive analysis and causality methods are employed in this study. causality method is used to determine the relationship between observed variables using panel regression. The results of the study indicate that the control on corruption, voice and accountability and political stability variables have significant negative effects on the tax ratio, while rule of law and quality of regulatory variables have positive impact on the tax ratio.

**Keywords:** *Governance, Taxation, political stability*

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### 1. Introduction

Theoretically, there is a relationship between taxation and investors' decision to make portfolio investment (Mossin, 1968 and Stiglitz, 1969). The impact of taxation on investment depends on how the law defines types of taxable income (Mankiw, 2007). Tax evasion is often found in practice and analysis of the causes of it has been conducted. On the other hand, Empirical studies on tax compliance have been done in various countries. Blanthorne (2000) and Bobek (2003) showed that non-compliance taxpayers' behavior is strongly influenced by several variables such as attitudes, subjective norms and perceived behavioral control. According to the study by the International Tax Compact in 2010, causes of tax evasion and tax avoidance in developing countries are including lack of tax regulations and weak tax administration. Bradley (1994) and Siahaan (2005) conducted studies on level of compliance of corporate tax payers with tax professional as the respondents. Both of the studies use theory of individual behavior and organizational behavior. Tax compliance are also influenced by cultural value of modern or traditional (Inglehart and Welzel 2005; Gereffi, 1989; Bergman, 2002). The level of religious beliefs also have a positive effect on the tax compliance. (Barro and McCleary (2003). Gereffi (1989), Lobkowski (1991), and You and Khagram (2005) also agreed that certain cultural values (hardworking, loyalty and punctuality) in East Asian countries are much better than in Latin America in recent years and these affect tax compliance in Asian countries.

Beside the various factors mentioned above, tax revenue is also affected by political stability, level of corruption, and quality of the policy. Imam and Jacobs (2007) showed that tax collection is affected by the real per capita income, the share of agriculture to the GDP, market openness, inflation and corruption. Gupta (2007) found that several structural factors, such as GDP per capita, the share of agriculture to GDP, foreign debt, and institutional variables such as corruption and political stability, have a significant effect on state's revenues. In Indonesia, the study of taxpayer compliance also performed by Mustikasari in 2007. The results showed that for the tax professional who had a high moral obligation, the intention of non-compliance to the tax was low and vice versa. The lower the perception of tax professional on its control would encourage tax professionals to obey tax obligation. A study by Mukhlis et al. (2014) showed that the factors that may affect tax compliance, especially Small and Medium Enterprises (SMEs) for paying tax, are justice, government's seriousness in dealing with corruption cases in taxation, tax rate, and how the income from tax spent for the benefits of the community. Beside influenced by tax compliance, tax target achievement is also influenced by the political economy condition (Riduansyah, 2003). His research showed that stable political and economic condition is important for the Bogor Local City Government to set the target on local tax revenues and levies.

Those two factors can be considered as two sides of a coin which determine the realization of the revenue. Rapid economic activity, supported by the stability of political and social conditions, provide an opportunity for regional government to maximize their revenue achievement.

Tax revenues in term of monetary value in Indonesia have been increasing from year to year with fluctuations within the year. However, the tax ratio has not significantly increased. Until 2014, Indonesian tax ratio was about 13 percent, lower than neighborhood countries such as Malaysia and Thailand which have tax ratio above 16 percent and far below South Korea that reach 24 percent. Low tax ratio indicates a loss of potential revenue that can be used as a source of development financing. It is also an indication of a sub-optimal taxation which means that there is a tax potential that cannot be collected. One of the possible reasons of this is the existence of tax evasion (Andreoni, Erard and Feinstein, 1998). Governance is one of the factors that determine tax compliance which lead to increasing or decreasing tax revenue. Kaufmann, Kraay, and Mastruzzi (2003), investigate the impact of institutions on tax morale. They use six proxies of the governance indicators, which the variables measure the process by which governments are selected, monitored, and replaced (voice and accountability, political stability and absence of violence), the capacity of the government to formulate and implement sound policies (government effectiveness, regulatory quality) and the respect of citizens and the state for the institutions that govern economic and social interactions (rule of law and control of corruption). This study aims to analyze the effect of governance on tax revenue. Governance in this study is represented by indicators such as political stability, government effectiveness, regulatory quality, law enforcement, accountability and control on corruption of tax revenues with empirical data of ASEAN countries.

## 2. Literature Review

**Tax Gap:** Tax gap is the difference between tax collected and tax liability (HM Revenue and Customs, 2013). Theoretically, the liability represents the tax that will be paid if all individuals and business entities legally eligible for paying taxes. Meanwhile, the US Internal Revenue Service (2005) defines the tax gap as "the difference between what taxpayers should pay and what they actually pay on a timely basis". Tax gap reflects the loss of tax caused by various reasons such as criminal attacks on the tax system or the taxpayer does not pay tax legally or illegally. In some cases, taxpayers hide income or assets, using designed schemes to avoid taxes payment obligation or different interpretations of the taxation system as the impact of complexity in tax regulation Toder (2007) defines the tax gap in two terms, the gross tax gap and the net tax gap. The gross tax gap represents the difference between the tax payable in the current year and the amount of tax paid by the taxpayer on time. The net tax gap is the gross tax gap in the current year deducted by the amount of tax payable paid by the taxpayer overdue (caused both paid voluntarily and as a result of billing efforts conducted by the tax authorities). According to the IRS (2005), the tax gap is the difference between the amount of the potential tax that may be collected and tax paid. Tax gap shows the potential revenues that have not been successfully realized by the tax authorities of a country. In the calculating of the tax gap, there is no difference problem in the structure of the taxation system problems on the both sides, the numerator and denominator. In the comparison with other countries, the use of the tax gap is considered more fair because tax structure such as differences in tax rates, the tax base and tax revenue component has been neutralized.

**Taxpayer Behavior:** From various studies, Ali (2013) concluded that the level of tax compliance highly affected by five factors, namely (i) the economic deterrence; (ii) the fiscal exchange; (iii) social influences; (iv) the comparative treatment; and (v) political accountability. Five indicators in certain situations can affect each other. Description of each indicator is as follows:

**Economic Deterrence:** The economic theory states that the economic deterrence is influenced by factors such as tax rates that will have an impact on avoidance, and the possibility of fraud detection that will determine the cost. These indicates that if tax rates are too high, it will encourage taxpayers to avoid it. As soon as the sanctions would affect Taxpayer's intention not to commit tax evasion. Sanctions are not the controlled factor for intentions and on behavior. Therefore, determined sanctions influenced not only intention to behave disobedient but also disobedient behavior directly. The positive effect of sanctions is in line with the results of the study (MacCaleb, 1976; Cummings et al., 2009). The increase and the amount of the penalty will cause a

reduction in tax evasion and increase the level of tax compliance through the deterrent effect. The results of the study Benk et al. (2011) also showed that the sanction affects the taxpayer's intention to behave.

**Fiscal Exchange:** According to the theory of fiscal exchange, government spending can motivate the level of compliance to pay taxes. Therefore, the government can increase the level of tax compliance by providing goods needed by the citizen more efficient and accessible easily (Cowell and Gordon, 1988; Levi, 1988; Tilly, 1992; Moore, 2004 & 1998). Alm et al. (1992) noted that the level of tax compliance will increase when public goods and services are available. Therefore, the main concern of the taxpayers is what they get as a return for direct payment of their taxes in the form of public service (*quid pro quo*). Peoples want to pay taxes because they appreciate the goods provided by the government, recognizing for what they pay is needed both to fund the procurement of goods and services (Fjeldstad, 2001). The existence of positive benefits can increase the likelihood that the taxpayer will comply voluntarily. Instead, corruption by government officials (especially tax officials) will cause the public unwilling to pay taxes (Cahyowati, 2011). The efforts to improve taxpayer compliance base on the assumption that the taxpayer does not want to pay taxes so that should be forced. In fact, there are taxpayers who voluntarily want to pay taxes caused existence of tax morality, called the ethical factor. Many factors affect the tax morality, one of them is the establishment of good governance. Because tax revenue is executive's duty, so the establishment of good governance that is controlled by executive can be improved. From the results of a survey conducted by Alm & Torgler (2011), the factors that influence the tax morality are the confidence to government, fair tax administration, nationalism and democracy.

**Social Influences:** In the social influence models, compliance behavior and attitudes to the tax system is suggested to be influenced by the behavior and social norms of groups as individual's reference (Snively, 1990). The Planned Behavior Theory developed by Ajzen (1991) is one of the attitude theories applied in various of behaviors. Arniati (2009) also stated that the Planned Behavior Theory is one of the models of social psychology that is often used to predict behavior. The Planned Behavior Theory is a good predictor of behavior because it is balanced by the intention to carry out the behavior. For this reason the researchers use the Planned Behavior Theory to explain phenomena or factors that affect tax compliance. In the Planned Behavior Theory, behavior acted by the individual arises because of the intention to behave. The rising of intention to behave is determined by three factors, namely: (1) attitude toward the behavior; (2) the subjective norm; and (3) the perception of controled behavioral (Ajzen, 1991). Hanno and Violette (1996) studied the tax compliance, and found that the attitude and subjective norm had a positive effect on intentions and behavior of tax compliance. Blanthorne (2000) improved the Planned Behavior Theory by adding the ethic variables to examine the tax compliance behavior of two individual taxpayers groups. The first group was individual taxpayers that had an opportunity to disobey, and another group was individual taxpayers that did not have an opportunity to disobey. Blanthorne could not prove that attitudes influenced the tax compliance intentions. From this study, it was found that the influence of the surrounding people (sub-jective norms) and perception of controled behavioral affected negatively to the tax compliance intentions.

**Comparative Treatment:** The comparative treatment model was established base on the equity and positive theory that said "addressing inequities in the exchange relationship between government and Taxpayers would result in improved compliance" (McKerchar and Evans, 2009). One of the things that have to be considered in the implementation of tax in the a country was the presence of justice. This is because psychologically the Community recognized that the tax is a burden. Therefore, of course, people needed a certainty that they got fair treatment in the imposition and collection of taxes by the state. It did not aim to obstruct the operating of the existed tax system. This assessment was probably to affect not only the assessment of citizen but also how citizen saw each others (D 'Arcy, 2011).

**Political legitimacy:** According to the theory of political legitimacy, tax compliance was affected by the level of trust to the government (Tayler, 2006; Kirchler et al., 2008). Legitimacy could be described as a belief or trust to governments, institutions, and social arrangements that should be appropriate, accurate, fair, and work for the society's goodness. Political scientists discussed how the legitimacy of political and civil identification was managed. African countries after independence emphasized national development for ethnic identity has been more successful than those who allowed the major ethnic hatred politics. In the

subsequent empirical analysis we will look at the extent to which different theories of tax compliance contributes to explain public attitudes towards taxation in African countries selected.

### 3. Methodology

World Bank (in Kaufmann et al., 2010) defines governance as a government with authority on how to carry out the management of economic and social resources for development of a country. Furthermore, Kaufmann et al. (2010) describes governance into three indicators: (a) the process by which governments are selected, monitored and replaced; (b) the capacity of the government to effectively formulate and implement sound policies; and (c) the respect of citizens and the state of the institutions that govern economic and social interactions. Each of indicators consists of two variables with the following description:

(a) A process where the government are selected, monitored and replaced:

- *Voice and Accountability* (VA) - Having perceptions regarding how far a certain country's citizens can participate for selecting their government, as well as freedom of expression, freedom of association, and a free media.
- *Political Stability* (PS) - having perceptions of the likelihood that the government will be stable or overthrown constitutionally or with violence, including motivation for political violence and terrorism.

(b) Capacity of the government to formulate and implement sound policies effectively:

- *Government Effectiveness* (GE) - having perceptions of the quality of public services, the quality of the public officials and the degree of their independence from political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
- *Regulatory Quality* (QR)-having perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote the development of private sector.

(c) Respect of citizens and the state for the institutions that regulate economic and social interactions, including:

- *Rule of Law* (RL)-having perceptions how far agents are confidence and comply to the rules of society, and especially the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
- *Control of Corruption* (CC)-having perceptions how far the public power is exercised for private interest, including in small and big forms of corruption, as well as the role of elites and private interests.

The analytical methods used in this paper are descriptive method and causality. Descriptive method is used to describe the observed variables, whereas the causality method is used to determine the relationship between the observed variables by using panel regression. Panel regression analysis on Tax Ratio as the dependent variable, and Governance which consists of six elements as the independent variables. Panel regression model is as follows:

$$TR_{i,t} = \alpha + \beta_1 VA_{i,t} + \beta_2 PS_{i,t} + \beta_3 GE_{i,t} + \beta_4 RQ_{i,t} + \beta_5 RL_{i,t} + \beta_6 CC_{i,t} + \epsilon_{i,t}$$

Where:

*TR* = Tax Ratio (tax revenue to GDP ratio, in percent)

For six elements as independent variables that representate Governance are index number with the range of value nge -2.5 (the lowest value) to 2.5 (the highest value). The six-forming elements are:

- VA* = *Voice and Accountability*
- PS* = *Political Stability and Absence of Violence/Terrorism*
- GE* = *Government Effectiveness*
- RQ* = *Regulatory Quality*

$RL$  = Rule of Law  
 $CC$  = Control of Corruption  
 $\alpha$  = constant  
 $\beta$  = regression coefficient  
 $\varepsilon_{i,t}$  = Error

Selection on panel model is done using several methods of: (i) the Chow-test or the Likelihood Ratio Test (LR test). It is used to choose whether the model follows Pool Least Square (PLS) or Fixed Effect Model (FEM). (ii) the Hausman test. The results from the test are to determine whether the model follows Fixed Effect Model (FEM) or Random Effect Model (REM). Tax Ratio data is obtained from the World Bank, while the *governance* data is obtained from the Worldwide Governance Indicators. Observation covers the period from 2003 to 2012. The scope of the research is the Asean region. However, because of the limited availability of the data, Brunei Darussalam, Myanmar and Vietnam are not included in the analysis. Lack of tax ratio data for Laos (2003 s / d 2005) and Indonesia (2010 s / d 2012) is completed from CEIC Data.

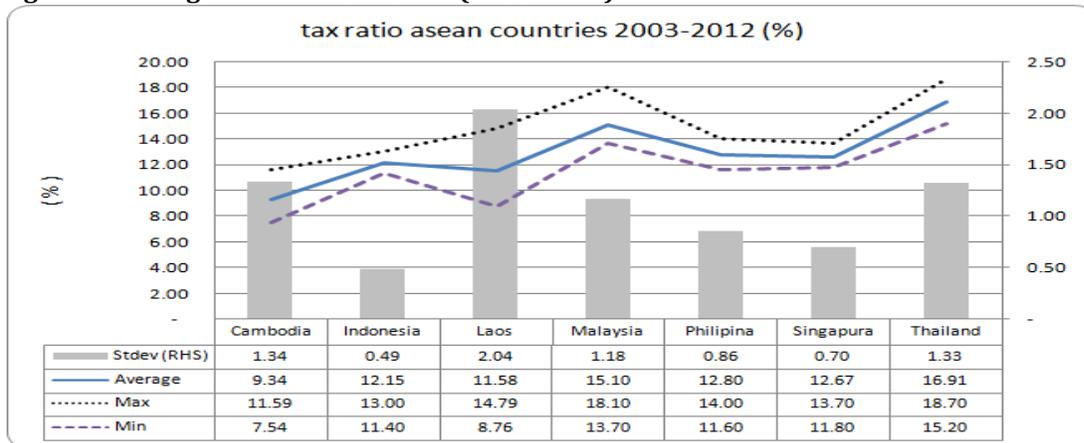
**Theoretical frame work:** This study is based on some theories. First is the theory of political legitimacy. The theory states that tax compliance is influenced by the level of citizen's trust to the government (Tayler, 2006; Kirchler et al., 2008). Legitimacy can be described as a belief or trust that governments, institutions, and social arrangements should be appropriate, accurate, fair and work for the all citizen's goodness. The second are the studies conducted by Bird et al. (2004) and Gupta (2007). Bird et al. (2004) found that factors such as corruption, role of law and regulations, play a key role for determining the tax revenue. While Gupta (2007) explained that corruption has a significant negative effect on revenue performance. Third thought is that state revenues depend on government efficiency. Good governance has a positive relationship with the tax system. Tax-to-GDP ratio can be increased by using a combination of good governance, macro-economic policy, and other policies. Benno (2003) showed that democracy, autonomy, trust in government and the courts, and the legal system have significant positive effects on tax morale.

#### 4. Data Analysis and Results

**Tax Ratio of ASEAN Countries:** In the period 2003 to 2012, the highest average tax ratio in ASEAN was in Thailand by 16.91%. Although it was in the highest rank position, the tax ratio of Thailand had a high standard deviation of 1.33%. Unstable political conditions in Thailand was one of the factors that caused the volatility of the tax ratio. Although the average tax ratio of Indonesia was in fourth rank position by 12.15%, the tax ratio of Indonesia was the least volatile than the other ASEAN countries. Indonesian tax ratio's standard deviation was 0.49%, less than Singapore that was in the second rank by 0.70%. The stability of the tax ratio in Indonesia was supported by the improvement in the political stability, in comparison with ther countries. During the observation period, the trend of political stability in Indonesia has increased. In 2003, Indonesia's political stability index of -2.12 that was the lowest index among the seven countries in ASEAN was observed. The index rised continuously so that in 2012 reached -0.57 (the fourth rank), with a trend increase in the index of 0.163 per year. Singapore as the most stable political country just had a trend of increase in the index around 0,029 per year. Meanwhile, in Thailand and Malaysia, the political stability indexes fell by -0.099 and -0.054 respectively. Assuming Indonesian political stability index increased by 0.163 per year, it can be predicted that in 2016 the political stability index will be positive (Figure 1).

However, with average tax ratio that was only in fourth rank, the movement of Indonesian tax ratio was relatively stagnant in comparison to other countries. the highest value of Indonesian tax ratio was just in sixth rank by 13.00% that occurred in 2008. While, Thailand could achieve a tax ratio by 18.40% in the same year. One of the factors that caused the low tax ratio is the low competitiveness of Indonesia. According to Schwab (2014), in the Global Competitiveness Index, Indonesia's competitiveness ranking rose from 38 in 2013 to 34 in 2014. However, among the ASEAN countries, Indonesia's competitiveness was still relatively low. The competitiveness index of Singapore ranked the second world, Malaysia ranked 20th, and Thailand ranked 31. In the report, one of the causes of the weakness of Indonesia's competitiveness was the issue of corruption. Corruption in Indonesia ranked 87 out of 144 countries, not better than Thailand (84), Malaysia (37), even Singapore (3).

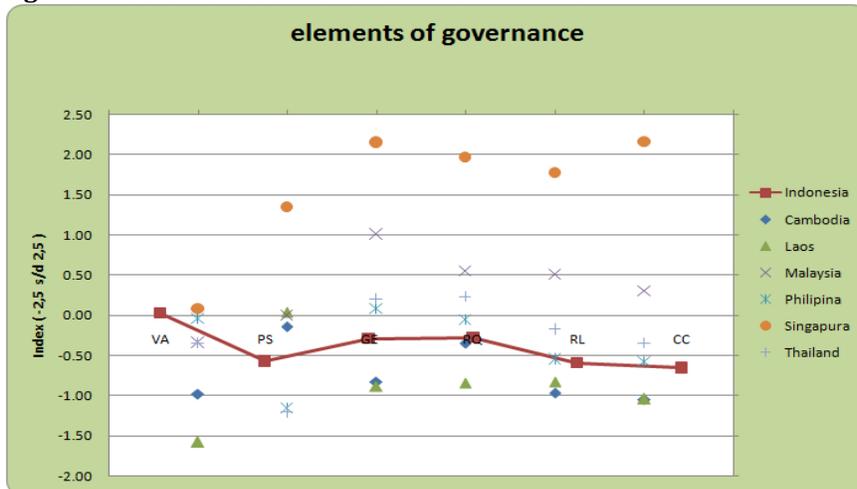
**Figure 1: Average Tax Ratio of ASEAN (2003-2012)**



Source: World Bank

**Governance:** Quality governance that includes voice and accountability, political stability and absence of violence / terrorism, government effectiveness, regulatory quality, rule of law and control of corruption is widely agreed and a social phenomenon that can significantly reduce tax revenues and seriously affect the growth of economics and economic development that in the end have an impact on state revenues. The quality of governance of a country is an important factor in the development process. Bird et al. (2008) showed that the tax structure was very responsive to the governance structure; state income taxes could boost their performance through improved governance structure. Various studies have tried to investigate the determinants of tax revenue (eg, Teera, 2003; Tanzi and Zee, 2000; Imam and Jacobs, 2007). Imam and Jacobs explained real income per capita, share of agriculture to GDP, trade openness and inflation, and corruption. From the six governance indicators, Indonesia was superior in voice and accountability (VA) indicator. Indonesia obtained VA index value by 0.03, slightly below Singapore's ranks that was in the first rank by 0.08. Indonesia's democratic process that began in 2000 is going well. The freedom of the press, multi-party elections, and the freedom of expression can run well without disturbing political stability. Except VA, five other governance indicators has negative value. From the five negative indicators, the Controlling of Corruption variable has the most negative value, so it is necessary to obtain high priority in the improving of governance. The controlling of corruption index value is -0.66 for Indonesia. This value is only higher than Cambodia and Laos who have a value of -1.04 for both of them. Meanwhile, the level of controlling of corruption for Singapore was in the top rank by a value of 2.58.

**Figure 2: Governance's Elements of ASEAN in 2012**



Source: www.govindicators.org

Besides the controlling of corruption, Indonesia Governance variable that also need to be given priority is the improvement of the rule of law (RL). This variable Indonesian index only reaches -0.60, above Laos (-0.83) and Cambodia (-0.97). The sixth of governance elements of the ASEAN countries are presented in Table 1.

**Table 1: Governance's Element of ASEAN in 2012**

	Cambodia	Indonesia	Laos	Malaysia	Philippine	Singapore	Thailand
VA	-0.98	0.03	-1.58	-0.34	-0.04	0.08	-0.34
PS	-0.14	-0.57	0.04	0.00	-1.16	1.34	-1.21
GE	-0.83	-0.29	-0.88	1.01	0.08	2.15	0.21
RQ	-0.35	-0.28	-0.84	0.55	-0.06	1.96	0.23
RL	-0.97	-0.60	-0.83	0.51	-0.55	1.77	-0.17
CC	-1.04	-0.66	-1.04	0.30	-0.58	2.15	-0.34

Source: www.govindicators.org

**Regression of Governance to tax ratio:** Statistical regression models should eligible Robustness and Stability, so that the coefficient does not change and will produce accurate forecasts. By including all variables, of the six independent variables that provide mixed results (Table 2). GE coefficient? PLS and FEM model is positive, while the Mode REM and FEM coefficient GE? is negative. Likewise, for the variable LR? PLS model provides a negative value, while the other models provide a positive value. Variable VA ?, PS? and CC? giving consistent results with relation to the TR? has a negative sign. While the RQ? also consistently have a positive relationship terhadap TR ?. If the model is used, it is not eligible robustness and stability. By looking at the value of Prob. GE variable? which amounted to 0960 showed that GE? showed no significant effect on the tax ratio, the next stage variabel GE? excluded from the model.

**Table 2: Results from Various Robustness Tests (All variable)**

Robustness Test	PLS		FEM		REM		FEM with SUR & White	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
VA?	-9.006	0.000	-3.081	0.022	-1.741	0.000	-3.212	0
PS?	-4.089	0.000	-0.736	0.361	-2.135	0.000	-0.694	0.018
GE?	12.011	0.000	0.101	0.955	-0.636	0.493	-0.0188	0.960
RQ?	8.285	0.000	6.325	0.001	2.442	0.001	6.424	0
RL?	-6.130	0.063	3.071	0.174	8.822	0.000	2.765	0
CC?	-7.286	0.000	-1.444	0.336	-6.174	0.00	-1.123	0.0001
Constant			10.775		11.099		10.767	
Effect (Cross) :								
_CAM--C			0.283		-1.76E-10		0.145	
_IND--C			3.911		1.31E-10		3.988	
_LAO--C			4.151		6.60E-11		4.048	
_MAL--C			-1.541		-3.86E-11		-1.422	
_PIL—C			2.217		-2.21E-10		2.359	
_SGP—C			-11.478		-8.04E-11		-11.661	
_THA—C			2.456		3.19E-10		2.542	
R-squared	-0.504		0.863		0.661748		0.974	
F Stat			29.95		20.54		178.54	
DW	0.489		1.246		0.727		2.017	

Source : Result of analysis

After GE? variable excluded from the model, the relationship of independent variables in the model against the tax ratio showed consistent and have a good stable coefficient direction at LS, FEM, REM and FEM with SUR & White. VA? variable, PS?, and CC? has a negative relationship with tax ratio (TR?). While the variable RQ? and RL? have a positive relationship. After GE variable? excluded from the model, models have shown stable results, it can be seen from the value of the regression coefficient sign that does not change the direction of the independent variables with the tax ratio (Table 3). To obtain the best panel regression models for the relationship between governance and tax ratio, two stages of testing has been conducted. Firstly, model selection between Pool Least Square (PLS) and the Fixed Effect Model (FEM) uses the Likelihood Ratio test (LR test). The test's result is Chi-square value of 63.5 with a probability of 0.000, so it can be concluded that a panel regression FEM is better than the PLS model. The second phase, to choose the best model between the Random Effect Model (REM) and the Fixed Effect Model (FEM) is by using the Hausman test. The obtained test's result is Chi-square value of 12.3 with a probability of 0.030. Then, it can be concluded that a panel regression FEM is better than REM. Based on those two tests, we can conclude that the Fixed Effect Model (FEM) is the most excellent models to know how the effect of governance to the tax ratio. Although Adjusted R<sup>2</sup> and F statistics are high, the value of the Durbin-Watson statistic is 1.24. It can be concluded that the regression above still contains the autocorrelation problem, so the model still needs to be cleared from these problems. To avoid any heteroskedastic problem, we use the option of White cross-section with panel regression options Seemingly Unrelated Regression panel regression (SUR). The result's analysis of regression is free from autocorrelation and heteroskedastic problems. By using five governance variables, we run the regression again and find a higher R<sup>2</sup> values of 97.5 percent, a larger F statistics by 206 and the Durbin-Watson statistic by 2.02. This model is free from the problem of autocorrelation.

**Table 3: Results from Various Robustness Tests (Minus variable GE?)**

Robustness Test	PLS		FEM		REM		FEM with SUR & White	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
VA?	-12.368	0.000	-3.119	0.007	-1.806	0.030	-3.152	0
PS?	-7.041	0.000	-0.720	0.333	-0.535	0.277	-0.764	0
RQ?	15.819	0.000	6.339	0.000	5.834	0.000	6.424	0
RL?	7.054	0.006	3.086	0.165	1.438	0.342	2.886	0
CC?	-10.419	0.000	-1.426	0.326	-3.750	0.001	-1.099	0.0001
Constant			10.791		10.773		10.790	
Effect (Cross)								
_CAM—C			0.194		-3.083		0.331	
_IND—C			3.910		1.148		3.998	
_LAO—C			4.037		1.180		4.271	
_MAL—C			-1.480		0.645		-1.494	
_PIL—C			2.248		0.087		2.311	
_SGP—C			-11.388		-2.409		-11.893	
_THA—C			2.480		2.432		2.477	
R-squared	-1.169		0.863		0.286		0.975	
F Stat			33.243		5.133		206.062	
DW	0.432		1.244		1.031		2.024	

Source: Result of analysis

The capacity of the government to effectively formulate and implement policies that either more (represented by the variable GE and RQ) in conjunction with the tax ratio, is reflected in Regulatory Quality (RQ), which is a reflection of policy implementation of its mandate. Variables GE and RQ have a correlation coefficient of 0.96. Then the inclusion of GE and RQ variables together cause multicollinearity problem. The

effects of each variable to the tax ratio are as follows: Firstly, the variable control of corruption (CC) has a negative effect on the tax ratio. The higher corruption (which is reflected by the low index CC) will lead the lower tax ratio. The poor control of corruption index that reflects the high level of corruption in Cambodia (-1.04), Laos (-1.04) and Indonesia (-0.66) cause the low tax ratio in those countries. The average tax ratio from 2003 to 2012 are 9.34% for Cambodia, 11.58% for Laos, and Indonesia by 12.15%. Corruption is a key factor behind the poor performance of revenue in some developing countries. There is a strong evidence that show that some steps taken to reduce corruption are expected to increase tax revenue significantly (Gupta, 2007). It is supported by the research's result of Ghura (1998) that stated that an increase of corruption will reduce state revenue.

Secondly, the variable of Political Stability (PS) has a negative effect on the tax ratio. The easier the government was overthrown, the higher the political tension and the presence of terrorist acts (as indicated by the low value of the index of PS) will cause the lower tax ratio. This is consistent with theoretical models constructed by Cukierman, Edwards and Tabellini (1991), where political instability and polarization determine the equilibrium efficiency of the tax system and the combination resulted by tax revenues. They provide evidence to support a model that shows that a higher degree of political instability and polarization causes a decrease in higher tax revenues. The results of other studies that support these findings was Jafari et al. (2010). It was concluded that political stability has a positive and significant impact on Foreign Investment in the Middle East and North Africa (MENA). Similar results of the research by Biglaseir and Brown (2009), which assesses political stability on Foreign Investment. Alesina et al (1996) using a sample of 113 countries with the observation period from 1950 to 1982 also concluded that the instability had a negative and significant effect on the rate of growth. Thirdly, the variable of Rule of Law (RL) provides a positive effect on the tax ratio. The higher the society's obedience to the law, enforcement of contracts / agreements, high confidence in the police and prosecutors, and low levels of violence will cause tax ratio to increased. Theoretically there is a relationship between the rule of law and economic growth. This relationship is usually focus on enforcement of contracts / agreements, trust in law enforcement agencies and the eradication of corruption (Haggard and Lydia, 2011).

Other results of the researches also showed the impact of the rule of law in a different formulation of the economy, such as the impact of anarchy (Hirshleifer, 1995), extortion (Konrad & Skaperdas, 1998), and violations of the law (Dixit, 2004). The results showed the devastating effects of civil conflict on economic growth. According to Collier (2007), civil war tended to reduce growth of about 2.3% per year. Even, state's failure and personal insecurity associated with criminal activity also influenced the development (Ayes, 1998; Buvinc & Morrison, 1999). Fourth, Regulatory Quality (RQ) variable had a positive influence on the tax ratio. The good government's ability to formulate the good policies and regulations for the development of the private sectors would increase the tax ratio. This is in line with research Loayza et al. (2005) who conducted research on the effects of regulation on economic growth in industrialized countries and developing countries. According to him, by the dynamics of the industries, informality was an important channel in which regulation affects macroeconomic performance and economic growth. This paper concludes that a heavier regulatory burden, particularly in product and labor markets, reduces growth and induces the development of the informal sector. If this effect can be suppressed, it would increase the overall pro forma institution. Fifth, the variable of Voice and Accountability (VA) gives a negative effect on the tax ratio.

The higher the government control over the freedom of press and freedom of association, it will cause tax ratio to decrease. This indicates that the freedom of the press is very useful as controlling's instrument for development. Press makes people aware and conscious to political rights as citizens. But it is certainly contrary to the countries in the Arabian Peninsula, Singapore, and even Malaysia. Empirical evidence shows that there is an inverse relationship between the press's freedom with welfare. Dutta and Roy (2009) showed that the higher of a freedom of the press in certain country, the smaller the foreign investment. This explains why countries with low level of press freedom have large Foreign Direct Investment. Coyne and Leeson (2005) also describe the relationship between the freedom of press with the welfare of the people. The higher of the freedom of press is, the smaller the people's welfare. However, behind that's all, the empirical evidence also indicates that the higher of press freedom's degree, the higher the distribution of wealth. This explains why the Indonesian population wealth distribution (Gini ratio) is better since the reform era, even the second best in ASEAN after Singapore. Briefly, freedom of the press has a negative impact on economic

growth and foreign direct investment. However, freedom of the press is very effective to create equitable economic justice. Thus, the freedom of press has two effects that must be considered carefully by the government.

## 5. Conclusion and Recommendations

Based on the results of the discussion in the previous section, the following conclusions can be reached:

- Generally, the tax ratio will increase along with the higher income of a country. However, the tax ratio's *trend* of the lower *middle income countries*, where Indonesia is in the group, is relatively stagnant and even decreased by 0.03 percent per year. The lower middle income countries during the period of observation experienced tax ratio *trap*.
- Countries' tax ratio in lower middle income group is vulnerable to the crisis. The existed crisis influences the tax ratio in lower middle income group of countries to fall by 2%. Besides vulnerable to the crisis, it would need time up to five years to recover the tax ratio to pre-crisis levels.
- Movement pattern Indonesian tax ratio during 2003 to 2012 is lower than the lower middle income countries group, with a greater gap. In 2003, the tax ratio gap reached 1.3%, increased 2 times or to became 2.6% in 2012.
- Although the average tax ratio Indonesia is in the fourth rank, the tax ratio of Indonesia's is the most stable in the ASEAN countries. The economic and political stability in Indonesia is a factor that support the stability of the tax ratio.
- Panel regression model with *Fixed Effect Model* is the best model to determine the effect of Governance on the tax ratio. Among the six variables of governance, Government Effectivity (GE) has no effect on the tax ratio in the ASEAN countries.

The implication of this study, the government of Indonesia and the ASEAN countries, need to adopt policies that can increase the capacity of the state administration. In addition, the legitimacy of the state, such as improving the quality of bureaucracy capacity to implement policy to encourage people to become better and anti-corruption initiatives are also important to reduce inefficiency in the provision of public goods. Finally, improvements in governance and strengthening governance mechanisms that affect social development can provide advantages in social development. These policies will ultimately lead to transparency in the public finance, which is expected to increase the level of tax compliance.

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