

EURASIAN JOURNAL OF ECONOMICS AND FINANCE

www.eurasianpublications.com

GOOD GOVERNANCE AND ECONOMIC GROWTH: AN INVESTIGATION OF THAILAND AND SELECTED ASIAN COUNTRIES

Paitoon Kraipornsak

Chulalongkorn University, Thailand

Email: kpaitoon@chula.ac.th

Abstract

Good governance has been placed an important factor in economic development especially in developing countries. Consequently, good governance is set to be one of the development goals in the millennium of the United Nations. The paper aims at comparatively investigating level of governance of Thailand and few other Asian countries. The study examined Worldwide Governance Indicator (WGI) comparatively among selected Asian countries. High percentile ranks of the WGI were found in advanced economies. Framework of production function is used to quantitatively analyze effect of being good governance on income per head. The production function was estimated for 16 Asian countries during 1996 – 2016 using the fixed effect model indicated by the Hausman Test. The result showed that apart from capital per head and total factor productivity growth, the good governance can additionally be a significant factor that contributes to growth of income per head. A higher composite governance index by 1 percent from the past year can help raise country's income per head by US \$31.34 or 0.54 percent per year. For Asian developing countries, the good governance is therefore a crucial factor that can contribute significantly to their growth.

Keywords: Cross Countries Comparison, Governance, Growth of Income Per Head, Least Square Dummy Variable Model, Production Function, Worldwide Governance Index

JEL Classifications: C23, G30, O04, O05, P51

1. Introduction

Good governance has been regarded as a key factor that plays role in modern economic development. It is revealed to enhance country's competitiveness and help keep the economy operating most efficiently. In contrast, bad governance can cause the economy to not reach its full potential. Corruption as a component of bad governance indicates only part of resources is taken to be used in economic activity. As a consequence, the public cannot gain full benefit from the activities.

Good governance can also support a UN Sustainable Development Goal (United Nations, 2017) as being an action to effective administration, strengthening the rule of law. In addition, good governance can promote sustainable economic growth with a high level of productivity and innovation.

The paper aims at comparatively investigating level of governance of Thailand and few other Asian countries. It also analyzes the relationship between good governance and economic growth to clearly show its contribution of good governance to growth. Since those countries can

be categorized in various different levels of development in terms of income per head; it is therefore interesting to examine whether countries with higher levels of income generally have better governance. Good governance indices of the Worldwide Governance Indicators (Kaufmann *et al.* 2010) of the World Bank are used as a proxy of level of governance.

The definition of good governance and its role on development will firstly be presented. The paper will then discuss on role of good governance on economic growth. Level of income per head and governance index of selected Asian countries are examined comparatively. Investigation of relationship between the governance index and income per head will then be explored in the next section. To examine relationship between income per head and good governance index, an econometric model of production function is used to analyze the growth using panel data of 18 Asian countries during 1999 – 2015. Analysis and conclusion will be presented in the last section.

2. Governance and Indicator

Recently, good governance has been widely accepted as a priority in economic development especially in developing countries. Good governance can be assumed to help boost the economy as it supports effectiveness and efficiency of development. Consequently, good governance is set to be one of the Millennium Development Goals of the United Nations (2007 and 2017).

Different meanings of good governance were defined; however most of them described connecting a well-qualified administration and institution (Kaufmann *et al.* 2010). Competency of administration and institution can assure sustainable progress of economic development.

Dixit (2009) defined good governance in regarding to legal and social institution and structure that support transactions and activities of the economy. The institution and structure is strengthened by property rights protection, contract enforcement, and collective action provision taken. Governance is considered important to economic activities and transactions as markets and economic activity and transactions cannot function well in its absence. Good governance was secured for three essential prerequisites of market economies: security of property rights for incentive to invest or save, contract enforcement to fulfill its promised role in transaction, and collective action to avoid free riding.

Municipal Association of Victoria, Victorian Local Governance Association, Local Government Victoria and Local Government Professionals (2016) define good governance as being about best possible processes for making and implementing decisions of the government. It consists of accountability, transparency, rule of law, responsiveness, equitability and inclusiveness, efficiency and effectiveness, and participation. Good governance is considered to be important since it gives local community confidence in its council. In addition to that, good governance conveys the government to better decisions and meet its legislative responsibilities.

Fukuyama (2013) had an effort to measure governance from various approaches. He made an effort to define governance as ability of government to enforce rules and to provide services. Nevertheless, the paper pointed out definition and measurement of governance conceptually by laying out 2 separate dimensions namely capacity and autonomy and suggested few components that can make them up. The paper suggested disaggregation of components of states namely by function, region, and level of government. The governance can then be measured by capacity and autonomy for all these components.

The United Nations defined good governance as well-resourced allocation and management that can lead to responding to mutual public interest (United Nations, 2007, 2017). Government must provide adequately all necessary public goods and services with the best allocation and distribution of available resources. The good governance is therefore related to governmental provisions of basic public goods and services both formally and informally. Correspondingly, governance must deal with processes of basic public goods and services the government has to provide for people consistent with human rights, democratic process, public participation, transparency, accountability, and responsiveness (Cheema, 2005).

As the world has been successfully developed in the past decades, it has yet increased income inequality and vulnerability to the world economic trends. To solve for solutions, policies should be effective and focused on generating positive outcomes of development. To resolve for

present challenges of the world development, it is essential to improve governance for the world's betterment. Good governance is therefore described, in the other perspective, as process through which states together with non-states implement policies within a given set of rules to strengthen the ability of groups and individuals to generate specific outcomes (World Bank, 2017).

Realizing the important role of good governance, quite a number of offices in various countries have constructed governance index to monitor for their successful outcomes of development. Nevertheless, the Worldwide Governance Indicators (WGI) has been constructed including more than 200 countries since 1996 (Kaufmann *et al.* 2009). Therefore, this paper adopted the WGI to be used so as to be consistently comparable in cross country analysis.

The WGI consists of 6 dimensions of governance namely (1) voice and accountability, (2) political stability and absence of violence/terrorism, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption. These indicators integrate views of a number of enterprise, citizen and expert survey respondents of institutes, international organizations, private firms, think tanks, and non-government organizations. This research dataset project is financially supported from the World Bank.

In Thailand, good governance is strictly defined. In details, there are quite similar components in most dimensions with the other international definitions such as accountability, transparency, rule of law, responsiveness, equity, efficiency and value of money, people participation, consensus orientation, and integrity (Sirisumphand, 2017). Nevertheless, a dimension of good governance in Thailand includes virtue and morality that are not focused in the Worldwide Good Governance Indicators of the World Bank. Partly, exclusion of virtue and morality of good governance dimension of the World Bank and the others could be because virtue and morality are quite abstract and difficult to measure. They are considered essential factors for Eastern societies including Thailand.

3. Governance in Thailand and Some Selected Asian Countries

The WGI of the World Bank is used in this study. It is generally accepted for research in addition to be consistent for comparison among countries studied in this paper.

The WGI comprises 6 dimensions as discussed above. The WGI of all the six dimensions are measured in terms of standard normal statistics or score (Z-Score) and percentile rank. It indicates that the governance situation in Thailand is in a mid-scale however its trend is declining during 1996 – 2015.

Measuring in terms of the Z-Score, it is estimated to be in the middle range of -1 to 1. This range of Z-Score indicates relatively the governance situation in Thailand is on average or in a middle range among countries studied in the studies. Specifically, the dimensions of government effectiveness (3), regulatory quality (4), and rule of law (5) are remaining in the mid-scale at around Z-Score of zero or close to zero; the dimensions of accountability and voice (1), political stability and absence of violence/terrorism (2), and control of corruption (6) show a deteriorating trend of -0.5 to -1.0 during the recent years (Figure 1).

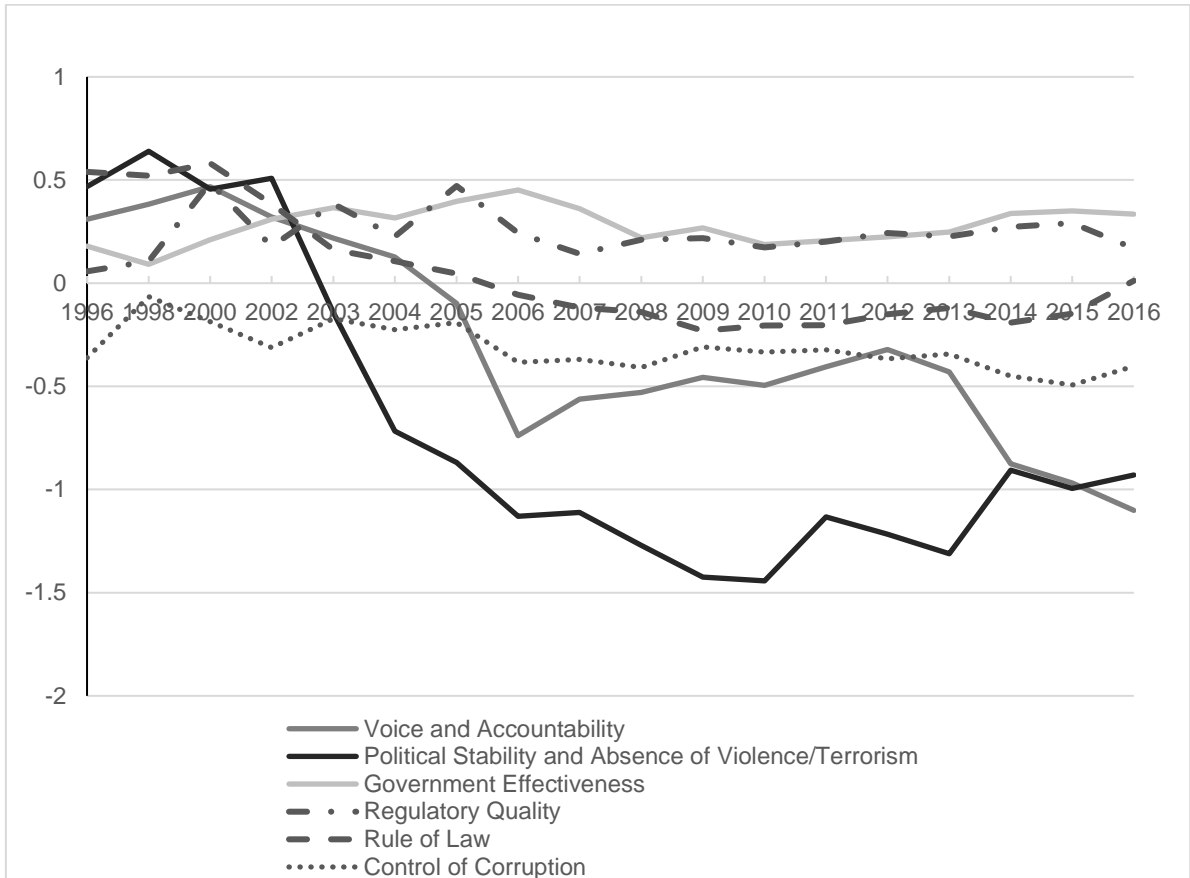


Figure 1. Z-Score of the WGI in Thailand

Source: The World Bank, *Worldwide Governance Indicator (WGI)*.

Note: * Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.

Similarly for the WGI measured in terms of percentile rank, the WGI in Thailand in terms of percentile is estimated to be at a mid-rank of around 50 – 60. In more detail, the dimensions of government effectiveness, regulatory quality, and rule of law are persisting in the mid-range at a percentage of 50 - 60; the dimensions of accountability and voice, political stability and absence of violence/terrorism and control of corruption show a deteriorating trend of 15 – 40 percentile rank. Since the percentile rank is simple to identify when compared to the Z-Score, the percentile rank is used in the WGI study (Figure 2).

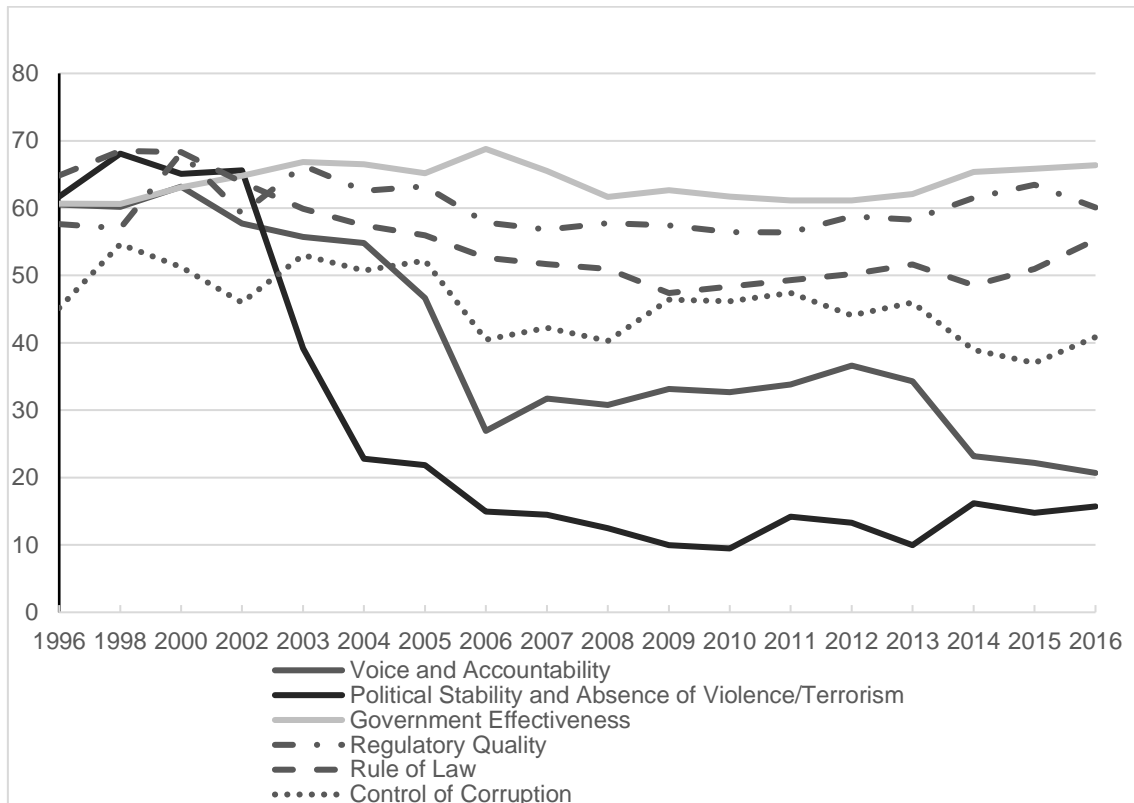


Figure 2. The Percentile Rank of WGI in Thailand
 Source: The World Bank, *Worldwide Governance Indicator (WGI)*.

The WGI provides numeric information; simply, it does not describe qualitatively how (good or bad) the level of governance index actually is. Comparative analysis of the WGI among countries can be helpful. The study therefore compared the WGI of Thailand to those of some selected Asian countries for deeper detail. Other six Asian countries were therefore selected to do the comparison of the WGI with Thailand; namely, China, Indonesia, Japan, Malaysia, Philippines, and Singapore.

The percentile rank is used in the following comparative study. When compared Thailand's WGI to those of Philippines and Indonesia, it is found that the WGI of Philippines and Indonesia are in the mid-range closely to those of Thailand (Table 1). Specifically, four out of six dimensions of the WGI of Indonesia are lower than those of Thailand; namely, government effectiveness (dimension 3), regulatory quality (dimension 4), rule of law (dimension 5), and control of corruption (dimension 6). Five out of six dimensions of the WGI of Philippines are lower than that of Thailand namely the four dimensions mentioned earlier and voice and accountability (dimension 1) in addition. The other two dimensions of the WGI of Indonesia namely voice and accountability (dimension 1) and political stability and absence of violence/terrorism (dimension 2) are contrarily higher or better than that of Thailand. The only one dimension of the WGI of Philippines namely voice and accountability (dimension 1) is higher than that of Thailand.

Table 1. Six Dimensions of WGI (1996, 2006, 2015 and 2016) (Percentile Rank)

	1996	2006	2015	2016
Thailand				
1. Voice and Accountability	61.06	26.44	23.65	20.69
2. Political Stability and Absence of Violence/Terrorism	57.97	14.49	15.71	15.71
3. Government Effectiveness	62.93	67.32	65.87	66.35
4. Regulatory Quality	58.33	57.84	63.46	60.1
5. Rule of Law	64.11	52.63	53.85	55.29
6. Control of Corruption	50.24	44.39	43.75	40.87
Indonesia				
1. Voice and Accountability	23.56	43.27	52.22	50.25
2. Political Stability and Absence of violence/Terrorism	13.04	9.66	24.76	33.33
3. Government Effectiveness	37.07	43.41	46.15	53.37
4. Regulatory Quality	57.35	43.14	47.12	50
5. Rule of Law	39.71	27.75	39.9	38.94
6. Control of Corruption	30.73	22.93	38.46	42.79
Philippines				
1. Voice and Accountability	55.77	45.19	51.72	50.74
2. Political Stability and Absence of Violence/Terrorism	30.43	8.21	20.95	10
3. Government Effectiveness	49.76	54.15	57.69	51.92
4. Regulatory Quality	59.8	50.49	52.88	53.85
5. Rule of Law	50.72	43.06	42.31	36.54
6. Control of Corruption	51.22	22.44	41.83	34.13
China				
1. Voice and Accountability	12.02	6.25	4.93	6.9
2. Political Stability and Absence of Violence/Terrorism	41.06	28.5	27.14	27.14
3. Government Effectiveness	46.83	56.59	68.27	67.79
4. Regulatory Quality	47.55	48.53	44.23	44.23
5. Rule of Law	36.36	37.32	43.75	46.15
6. Control of Corruption	43.9	36.59	50	49.04
Malaysia				
1. Voice and Accountability	50	32.21	36.45	33
2. Political Stability and Absence of Violence/Terrorism	61.84	54.11	54.29	50
3. Government Effectiveness	76.1	85.37	76.92	75.96
4. Regulatory Quality	72.55	67.16	74.52	75.48
5. Rule of Law	65.07	65.55	71.63	71.15
6. Control of Corruption	71.22	65.37	65.87	61.54
Japan				
1. Voice and Accountability	80.77	76.92	79.31	77.83
2. Political Stability and Absence of Violence/Terrorism	86.47	86.96	82.38	86.19
3. Government Effectiveness	81.46	89.76	95.67	95.67
4. Regulatory Quality	73.04	87.25	85.1	90.38
5. Rule of Law	90.43	89.95	89.42	88.46
6. Control of Corruption	84.39	90.24	91.35	90.87
Singapore				
1. Voice and Accountability	55.29	35.58	42.86	36.95
2. Political Stability and Absence of Violence/Terrorism	85.02	93.72	93.33	99.52
3. Government Effectiveness	100	99.51	100	100
4. Regulatory Quality	100	98.04	100	100
5. Rule of Law	89.47	92.34	96.63	96.15
6. Control of Corruption	96.59	97.56	97.12	97.12

Source: The World Bank, *Worldwide Governance Indicator (WGI)*.

When compared to China, most dimensions of the WGI of both China and Thailand are similarly in the mid-percentile rank in some dimensions and rather low ranks in a few dimensions (Table 1). Recently, the WGI of Thailand are higher in dimensions 1 (voice and accountability), 4 (regulatory quality), and 5 (rule of law). It is noticeable that the WGI of China is higher in dimensions 2 (political stability and absence of violence/terrorism), 3 (government effectiveness), and 6 (control of corruption). The WGI of China in those three dimensions (2, 3, and 6) have been improved significantly until they were higher than those of Thailand in recent years.

In addition, status of the WGI of Thailand has been deteriorated sharply in dimensions 1 (voice and accountability), 2 (political stability and absence of violence/terrorism), 5 (rule of law), and 6 (control of corruption) in recent years. Particularly, the fallen percentile rank is obviously seen in dimensions 2 (political stability and absence of violence/terrorism) and 1 (voice and accountability) to percentile rank of 15.71 and 20.69, respectively.

The WGI of Malaysia has generally been higher than that of Thailand in all dimensions in recent years (Table 1). Exception is only in dimension 1 (voice and accountability) in the past of which Thailand was better. It is interesting to note however that the WGI in dimension 1 of both countries has a decreasing trend over period of the study. In addition, the WGI in dimension 1 of Malaysia is the only one of the six dimensions that was lower than 50 percentile rank.

When comparing Thailand to Japan and Singapore, where both countries are advanced economies, it can be obviously seen that all dimensions of the WGI of both countries have been higher than those of Thailand (Table 1). Nevertheless, the WGI in dimension 1 (voice and accountability) of Singapore is in general not very much higher than that of Thailand. It should be noted that apart from dimension 1, the other dimensions of the WGI of Singapore are in very high percentile ranks of up to 100. The WGI in all dimensions of Japan are generally found to be high as much as 75 – 95 percentile ranks.

4. Quantitative Analysis of Good Governance and Economic Growth

It is hypothesized that well qualified administration and institution or being good governance can lead to efficient resource allocation and well management. It can be a supportive factor inducing economic functioning and growth. Therefore the higher WGI means to support of growth and leads to higher income per head.

The World Bank (2007) studied quality of governance comparatively among countries and its role on economic development. The study realized that control of corruption is one of the six WGI's dimensions. The study found that countries in which they can control corruption well were those developed economies.

Importance of good governance was discussed in detail by the World Bank (2017). The report requested for the governments' attention to place priority on good governance. The report proved and pointed out the role of good governance that supported achievement of economic development in various goals namely economic growth, economic equity, and economic stability and sustainability. The study also analyzed and indicated that income per capita has a positive relationship with absence of bribery and corruption.

The World Bank (2017) also extended the study to discuss on impossible achievement of countries to be out of any middle income trap. Middle income countries such as Thailand often experienced situations in which low income workers in the rural area migrate to work in industries and services in urban or cities. The migration is generally beneficial to the economy wide as the process that can raise the income of the country as a consequence. The process is going up to a stage of limitation when the benefit reaches diminishing marginal returns to labor. Any further benefit of rapidly increasing income of workers can then be fulfilled only by additional contributions of a factor called total factor productivity growth. The growth of total factor productivity can be obtained by enhancing efficient allocation of resources of factors across sectors.

In addition to the total factor productivity growth, those middle income countries still need to upgrade and improve their qualified facilities and complicated process of productions. Private and public participation and coordination is essential for advance development. Good governance is a part to help enhance the efficient resource allocation. Policies of government needs to be implemented efficiently and effectively achievable by the good governance.

Relationship between income per capita as a proxy of stage of development and governance indicator was analyzed in Quibria (2014). A simple regression line of a composite index of governance on logarithm of real GDP per capita was estimated. The slope coefficient of the estimated regression line was found to be 0.4710 with R-squared of 0.6320. In addition, relationships between various dimensions of the WGI and the income per capita were also estimated. The study found the slope coefficients ranging between 0.391 and 0.526. It was 0.391 for voice and accountability, 0.403 for political stability, 0.483 for regularity quality, 0.496 for corruption perception, 0.513 for rule of law, and 0.526 for governance effectiveness.

The study in this section is to analyze and show effect of good governance and success of economic management. The relationship between a good governance index and income per capita is estimated by an econometric model and analyzed to demonstrate the hypothesis. Good governance is therefore a significant factor contributing to the successful outcome of economic development, mainly due to its effect on efficiency and effectiveness of the economic management. Income per capita is the main index to be used for the successful and sustainable development in this study.

This study categorized countries in the world into 5 groups by income per head following the classification of the World in 2016 using Gross National Income per capita; namely, (1) low income countries: having by \$1,045 or less, (2) middle income countries: \$1,045 and less than \$4,125, (3) upper middle income countries: \$4,125 and less than \$12,736, (4) High Income non-OECD countries, and (5) High Income OECD countries. In addition, rationale of the grouping of the high income OECD countries and the high income non-OECD countries is due to the difference that main income of the OECD countries are from industry and services while main income of the non-OECD countries are from some specific sources; i.e., petroleum oil, gas, and natural resources. In general graphical investigation (Figures A1 – A6, in Appendix), they show the higher WGI in all dimensions consistently accompanied with higher income groups of countries.

The study employs framework of production function to examine contribution of governance and income per capita. The aggregate production function is written in Cobb Douglas functional form as written in Equation (1) below.

$$\ln Y_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 CI_{it} + \alpha t + \varepsilon_{it} \quad (1)$$

Where

Y is real per capita Gross Domestic Product.

K is real per capita capital stock.

CI is composite governance index. The CI is not in terms of logarithm as it is in percentage.

t is time trend.

Data of 16 Asian countries during 1996 – 2016 are drawn and used in the estimation of the model (list of Asian countries used in the estimation of the model can be seen in Table 2 below). Data set of Y and K are from the World Bank. CI is calculated from the WGI.

Details of variables are as follows.

GDP measured in constant 2010 price (US\$) divided by labor force is proxy of Y.

Gross Fixed Capital Formation (GFCF) measured in constant 2010 price divided by labor force is proxy of K

The averaged WGI of all 6 dimensions is calculated by giving equal weight for each dimension is proxy of CI. The calculated composite CI is also divided by number of population. This adjustment is essential in order to create for the new CI that is comparable across different countries. More people implies more difficulty for good administration.

Both per capita GDP and per capita GFCF are calculated in terms of per labor force.

Countries were selected mainly depending on availability of data for all relevant variables used in the model. Nevertheless, data of GFCF in 2016 has not yet been available for Japan and China; the study estimated it by using growth of Gross Capital Formation (constant 2010, US\$) in 2016 to estimate for GFCF (constant 2010, US\$) in 2016.

Panel data by Least Square Dummy Variable (LSDV) model was used in the estimation of Equation (1). The model can absorb effects of particular time invariant specific factors of countries and avoid biased estimate. The Hausman Test for random effect was calculated and was found to be 121.7631, which confirmed the fixed effect. The result is shown as in Table 2).

Table 2. Estimated result of Equation (1)

Dependent variable: Log(Real per capita GDP)	
Sample: 1999 2016	
Cross-sections included: 16	
Variable	Coefficient
Constant	5.7270*** (37.2386)
Log(Real per capita capital stock)	0.4149*** (19.4893)
Composite governance index	4971.4450*** (4.3505)
Time trend	0.0184*** (13.8042)
Estimated country specific fixed effects	
Bangladesh	-0.992139
Brunei	0.321659
Cambodia	-0.952233
China	-0.442017
India	-0.717437
Indonesia	-0.296760
Israel	1.218937
Japan	1.341565
Korea	0.766283
Malaysia	0.480639
Pakistan	-0.406802
Philippines	-0.285220
Singapore	1.158080
Sri Lanka	-0.195734
Thailand	-0.064161
Vietnam	-0.884685
Adjusted R ²	0.9971
Sum squared residual	1.6468
F Statistic	5434.7580***
Hausman Chi Squared Statistic	121.7631***

Note: *, **, and *** shows statistical significance at the 10%, 5%, and 1% levels, respectively. t-statistics are given in the parentheses.

Source: Author's estimation

In general, the estimated production function is found to be consistent with the hypothesis and theoretical framework. Good governance has a significantly positive contribution to growth in income per head. Capital stock per head positively affects growth of income per head. Productivity growth or trend of growth of income per head is 1.8 percent per year on average. Country specific factor indicates ranking from the lowest of Bangladesh to the highest of Japan. In addition, those high income countries are all having positive specific effect.

To examine the effect of being good governance on growth, the study used the estimated model to calculate for the result. Assuming that Thailand's CI increases (improves) by 1 percent from that in 2016, given the other factors remaining the same, simulation of the estimated model indicates that the effect of improvement of the composite governance index can raise income per head by US \$31.34 per year or 0.53 percent. The result is however of partial equilibrium analysis. In practice, the other factors affecting the growth is dependent on all influential factors.

Regarding Thailand's long term strategic plan in the future 20 years (in 2036) stated in the current 12th National Economic and Social Development Plan (2017 – 2021) (Office of the National Economic and Social Development Board, 2017), the government aims to change the stage of economic development to become a high income country from existing upper middle income country. To fulfill this stiff target, the growth of income per head is estimated to grow by at least 4 percent per year on average for 20 years. Taking into consideration that Thailand's growth of income per head being less than 4 percent for the recent few years (2.57 percent per year during 2011 – 2016), therefore, the improvement of governance can be a significant part of the achievement.

4. Conclusion

Good governance can be defined as competency of administration and institution leading to efficient resource allocation and management. Good governance is therefore related with governmental provision basic public goods and services both formally and informally.

Worldwide governance indicator (WGI) has been constructed under support of the World Bank is used to be indicator of governance in this study. The WGI is composed of 6 dimensions and included most of countries in the world (214 countries in 2016). The study examined the WGI comparatively among selected Asian countries. It suggested that the high percentile rank of WGI are mostly advanced economies.

Framework of production function is used to analyze effect of being good governance on income per head. A composite index of the six dimensions of WGI was constructed by averaging all the dimensions with equal weights. The production function was estimated for 16 Asian countries during 1996 – 2016 using the fixed effect model indicated by the Hausman Test. The result showed that apart from capital per head and total factor productivity growth, the good governance can additionally be a significant factor that contributes to growth of income per head.

By simulation, if an economy can successfully manage to achieve higher (composite) governance index by 1 percent from the past year, it can help raise the selected Asian country's income per head by US\$ 31.34 or 0.54 percent per year. Taking account of Thailand's income status of being upper middle income country with average growth of income per head by 2.57 percent per year during 2011 - 2016, it can be seen rather hard for Thailand to shift up the population's income to become a high income country without improvement of governance.

References

- Cheema, G. S., 2005. *Building democratic institutions: governance reform in developing countries*. New York: Kumarian Press.
- Dixit, A. K., 2009. Governance institutions and economic activity. *American Economic Review* 99(1), pp. 5-24. <https://doi.org/10.1257/aer.99.1.5>
- Fukuyama, F. 2013. *What is governance?* Working Paper 314. Washington, DC: Center for Global Development.
- Kaufmann, D., Kraay, A. and Mastruzzi, M., 2010. *The Worldwide Governance Indicators: methodology and analytical issues*. World Bank Policy Research Working Paper No. 4370, World Bank Development Research Group.
- Kaufmann, D., Kraay, A. and Mastruzzi, M., 2009. *Governance matters VIII: aggregate and individual governance indicators, 1996 – 2008*. Policy Research Working Paper No. 4978. World Bank Development Research Group.

- Municipal Association of Victoria, Victorian Local Governance Association, Local Government Victoria and Local Government Professionals, 2016. *Good governance guide: helping local governments govern better*. [online] Available at: <<http://www.goodgovernance.org.au/about-good-governance/>> [Accessed on 10 January 2018].
- Office of the National Economic and Social Development Board, 2017. *National economic and social development plan (2017 – 2021)*. Bangkok.
- Quibria, M. G., 2014. *Governance and developing Asia: concepts, measurements, determinants, and paradoxes*. ADB economics working paper series No. 388. Asian Development Bank.
- Sirisumphand, T. 2017. Promotion and development of good governance. Lecture Note presented in the good governance for sustainable development of the 4th training program for senior executive government office, Rama Garden Hotel, Bangkok, 4th March.
- United Nations, 2007. *Public governance indicators: a literature review*. Department of Economic and Social Affairs, New York.
- United Nations. 2017. *The sustainable development goals report*. New York.
- World Bank. 2007. *A decade of measuring the quality of governance: governance matters 2007 worldwide governance indicators, 1996-2006*. Washington, D.C.: World Bank.
- World Bank. 2017. *World development report: governance and the law*. Washington, D.C.: World Bank.
- World Bank Group. 2017. *The Worldwide Governance Indicators (WGI)*. [online] Available at: <www.govindicators.org> [Accessed on 10 January 2018].

Appendix

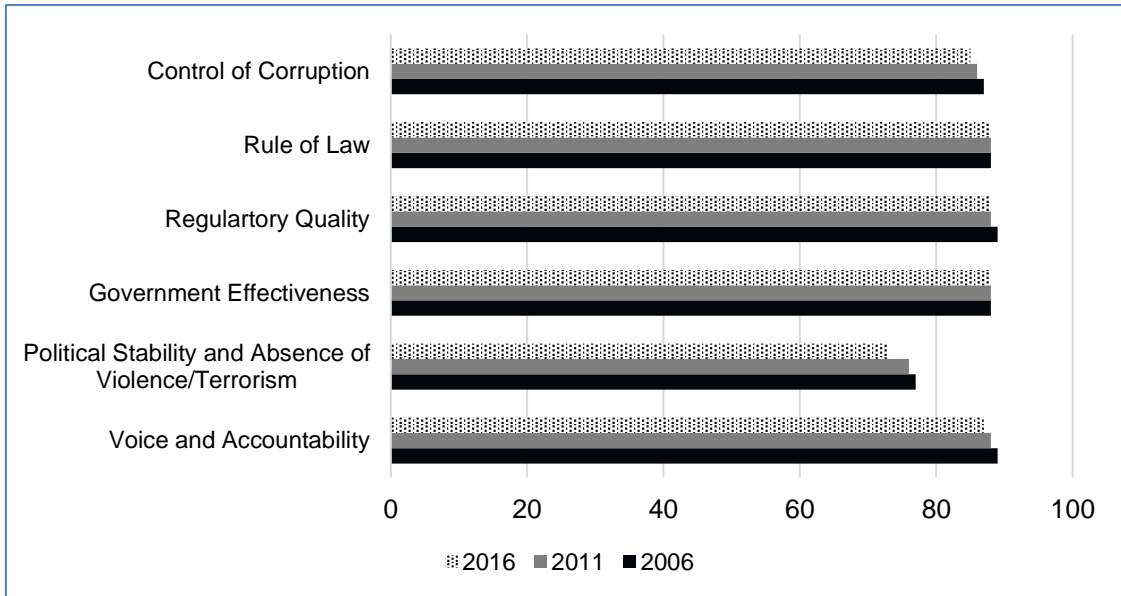


Figure A1. Worldwide Governance Indicators of High Income OECD
Source: The World Bank Group (2017)

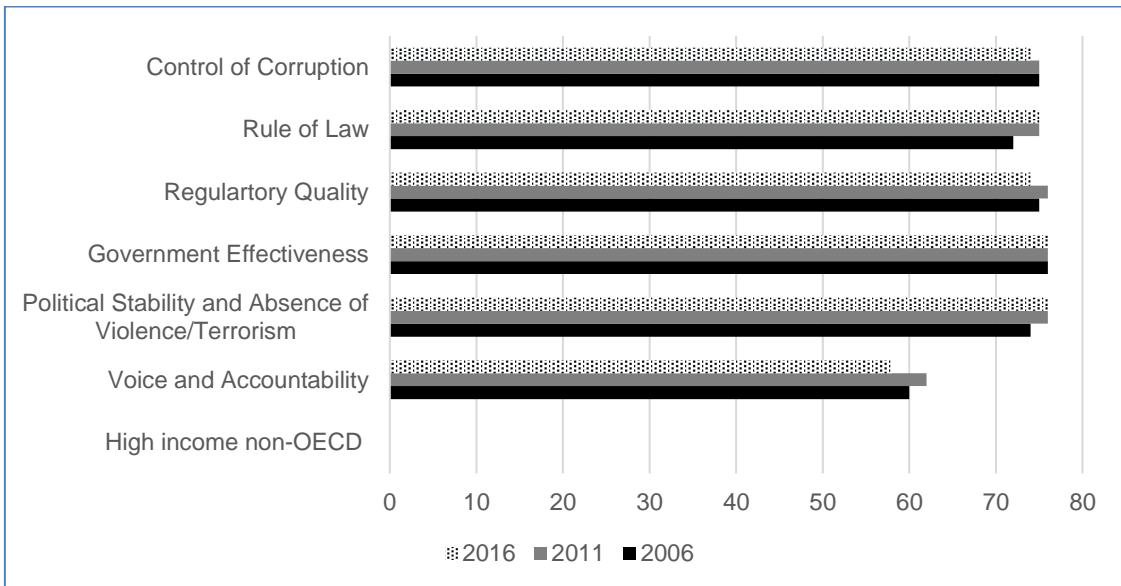


Figure A2. Worldwide Governance Indicators of High Income non-OECD
Source: The World Bank Group (2017)

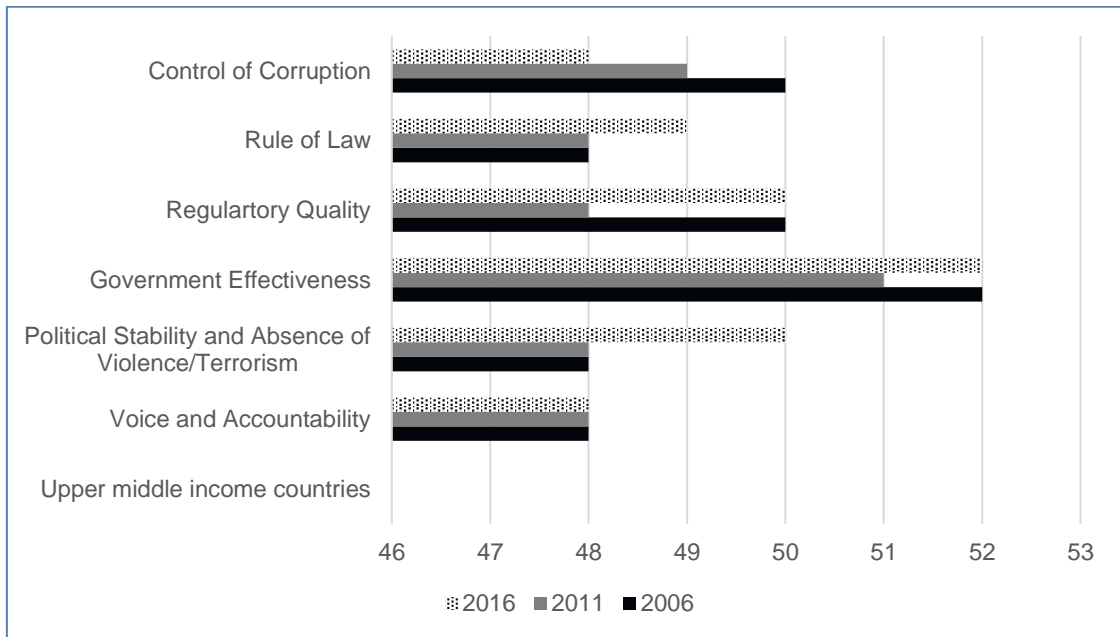


Figure A3. Worldwide Governance Indicators of Upper Middle Income Countries
 Source: The World Bank Group (2017)

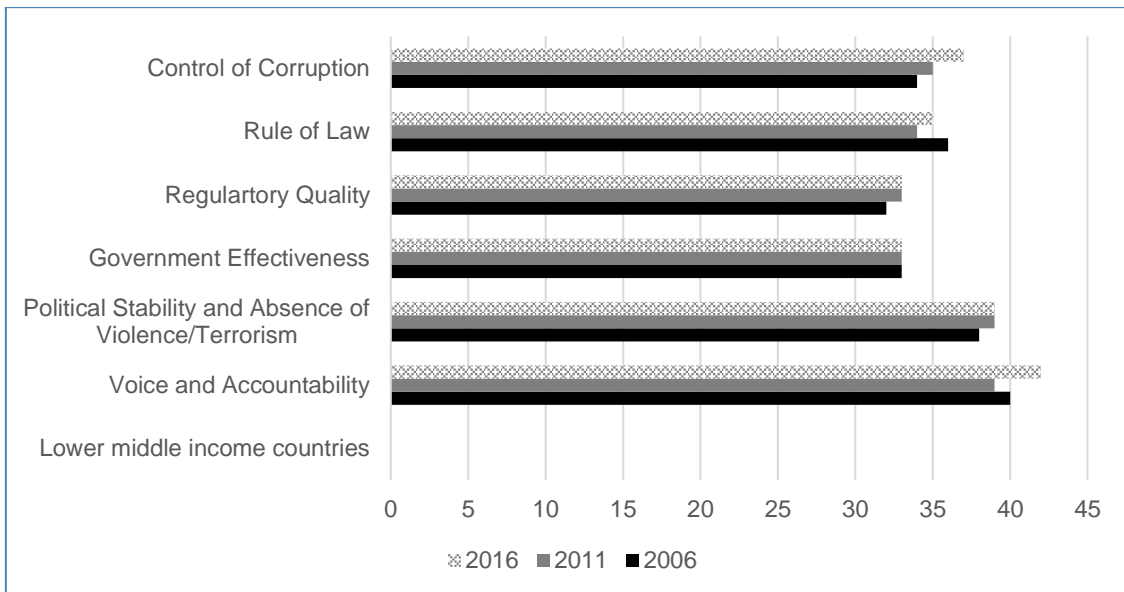


Figure A4. Worldwide Governance Indicators of Lower Middle Income Countries
 Source: The World Bank Group (2017)

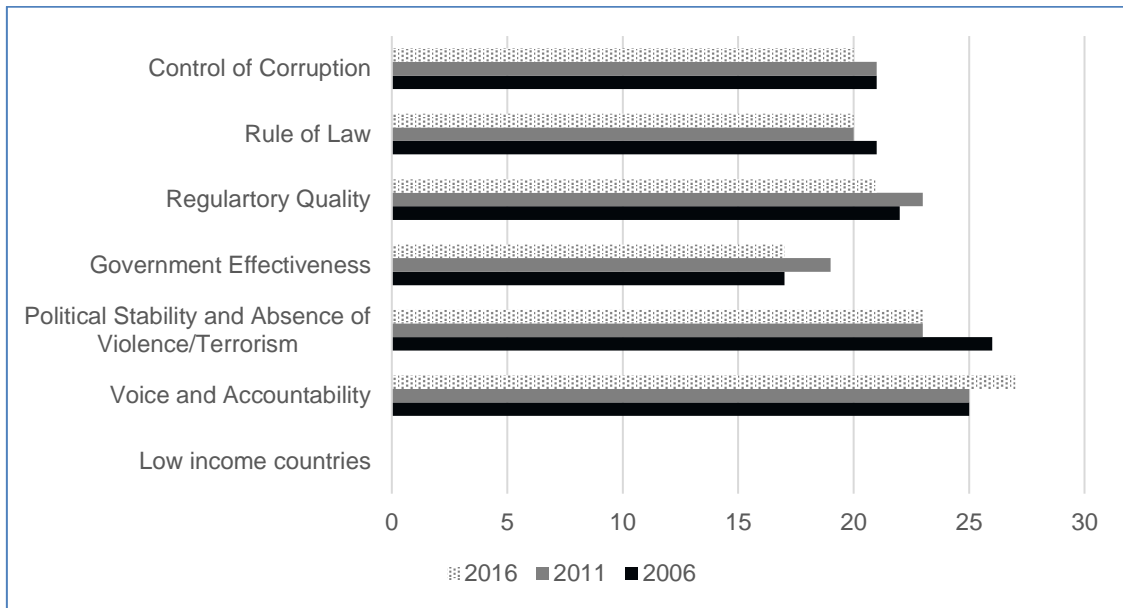


Figure A5. Worldwide Governance Indicators of Low Income Countries
Source: The World Bank Group (2017)