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PUBLIC SPENDING EFFICIENCY AND POLITICAL AND ECONOMIC FACTORS: EVIDENCE FROM SELECTED EAST ASIAN COUNTRIES

ABSTRACT: *This paper analyses public spending efficiency and the effect of political and economic factors on public spending efficiency in East Asian countries for the period 2000-2007. In the first stage, the non-parametric Data Envelopment Analysis (DEA) approach is used to estimate public spending efficiency scores. In the second stage, the Tobit regression model is then used to determine the effect of political and economic factors on public spending efficiency. Results of the study show that China is relatively efficient in public spending on education, health, and maintaining economic performance and stability, Japan on infrastructure, and Singapore on promoting public services. In addition, countries in East Asia are relatively less efficient in public spending for promoting equal income distribution. The results also indicate that political stability and financial freedom have a positive effect on public spending efficiency. However, voice, accountability, and civil liberties have a negative effect on public spending efficiency.*

KEY WORDS: *public spending efficiency, sata envelopment analysis, political and economic factors, East Asian countries*

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1. INTRODUCTION

Government spending has received considerable attention from both government and taxpayers due to its implications for economic growth. However, concern about the role of government and state has shifted towards empirical assessments of the efficiency and effectiveness of public sector activities (Afonso, Schuknecht and Vito-Tanzi, 2003). In recent years globalization has further raised public pressure on efficient allocation of resources as globalization creates a more mobile environment for capital flows (Afonso, Sckuknecht and Tanzi, 2006). Furthermore, governmental practices in East Asia started to receive considerable attention from foreign investors, especially with the ASEAN-China Free Trade Area that came fully into force on January 1, 2010. As a result, more transparent public spending practices are required from the government as public spending efficiency plays a key role ina country's economic success and stability (Tanzi and Schuknecht, 2000; Heller, 2003).

Economic theory has recognized public expenditure as the engine of economic growth. Lucas (1988) argues that public spending in education increases the level of human capital, which contributes to the knowledge-based economy and hence economic growth. Zagler and Dürnecker (2003) argued that fiscal policy instruments such as government spending on education, public infrastructure, research and development, and health have long-run effects on the country's economy. Realizing the importance of government expenditures, taxpayers demand efficient use of public spending.

Public spending efficiency is defined as the ability of the government to maximize its economic activities given a level of spending, or the ability of the government to minimize its spending given a level of economic activity. Hence, public spending efficiency could be used as an indicator to evaluate the effectiveness of government policy implementation on administration, education, health, income distribution, and economic stability. It is crucial for the government to spend the money collected from taxpayers efficiently, as it is accountable to its citizens. The fundamental question of economics is concerned with the efficient use of scarce resources. In this context the concept of efficiency provides an evaluation of a country's allocation of resources in promoting economic growth.

This paper analyses public spending efficiency and the effect of political and economic factors on public spending efficiency in the case of selected East Asian countries(Indonesia, Malaysia, Philippines, Singapore, Thailand, China, Japan and South Korea)for the period 2000-2007. Unlike previous studies, this

study analyses various types of government spending efficiency. Results from this study enable policymakers to identify sectors where government spending is inefficient so that governments can reallocate their resources efficiently. In addition, identification of the political and economic factors that affect public spending efficiency enables governments to make correct policy with regards to public spending. According to Becker (2008), public spending efficiency analysis is the best approach to gain insight into the practices by the country's authorities in their use of resources to achieve economic objectives. As pointed out by Haque and Osborn (2003), most of the studies done on public spending are based on a set of developed countries or a mixture of both developed and developing countries. Hence, the conclusions drawn cannot be directly extended to developing countries, due to significant differences in terms of composition of government expenditures and priority in economic objectives between developed and developing countries. Consequently, this study also fills a gap in the literature by analysing the effect of political and economic factors on public spending efficiencyin the case of East Asian countries.

The remainder of this article is organized as follows. Section 2 reviews studies on public spending efficiency. Section 3 discusses the method used in estimating public spending efficiency and the effect of political and economic factors on public spending efficiency. Section 4 presents and discusses the results. Finally, section 5 concludes.

2. LITERATURE REVIEW

In public finance literature, public spending on investment, consumption, social welfare or redistribution enhances economic growth and overcomes the stage of stagnation in an economy (Afonso, Ebert, Schuknecht and Thöne, 2005). This is particularly true as public spending leads to an increase in human capital, which enhances research and innovation activity (Afonso, Schuknecht and Tanzi, 2006; Zagler and Dürnecker; 2003). In addition, research and innovation is crucial for a country to sustain its competitiveness. Government spending, particularly on education, increases human capital and hence brings technological progress,which in turn leads to efficiency in the economy.

There are a number of studies that measure public spending efficiency and its determinants (among others, Borger and Kerstens, 1996; Afonso, Sckuknecht and Tanzi, 2003; Afonso and Fernandes, 2006; Afonso, Sckuknecht and Tanzi, 2006; Haque and Osborn, 2007; Rayp and Sijpe, 2007; Afonso and Fernandes,

2008; Becker, 2008; Feeny and Rogers, 2008; Angelopoulos, Philippopoulos and Tsionas, 2008). Their studies focus on public spending efficiency in education, health care, civil justice, infrastructure, economic stability, and economic efficiency. Results from these studies in the European countries are conclusive. They found wide dispersion in government spending performance within and across the countries studied. In addition, Afonso, Sckuknecht and Tanzi (2006) and Afonso and Fernandes (2008) found that per-capita income and education levels contribute significantly to public spending efficiency. This is consistent with the results of the studies by Borger and Kerstens (1996) and Rayp and Sijpe (2007).

The size of the public sector also plays a part in government spending efficiency. Afonso, Sckuknecht and Tanzi (2003) found that countries with a small public sector appear to be more efficient. This result is supported by Becker (2008). Becker (2008) also shows that countries with clear and citizen-friendly regulatory environments that are directly linked to their policy goals are relatively efficient in their public spending. This result is supported by Feeny and Rogers (2008) in their study on public spending efficiency in SIDS and Sub-Saharan African countries. They found that governance and literacy are the most important determinants of public sector efficiency. Rayp and Sijpe (2007) also found that development aid, less civil liberty, and good governance contributes to higher efficiency of government expenditure in the case of low and lower middle income countries. This result is supported by Adam, Delis and Kammas (2007) in their analysis of 19 OECD countries for the period 1980 to 2000. They found that quality of governance is more important than socioeconomic environment in influencing public spending efficiency. The results also show that countries that are efficient in their public spending are characterized by citizen-friendly regulatory environments, strong transparency regulatory practices, cost-effectiveness, and public spending directly linked with policy goals. On the other hand, Angelopoulos et al. (2008), in their study of public sector efficiency in both developed and developing countries, found that government efficiency largely depends on investment and the openness of the country.

A study by Gupta and Verhoeven (2001) found that education spending in Africa increased the efficiency level of public spending. A similar result was found by Fenny and Rogers (2008), where literacy and school enrolment are considered as important determinants of public sector efficiency in small island developing nations. Besides studies of a country's public spending efficiency, studies have also been done at the local government level (among others, Borger and Kerstens,1996, Afonso and Fernandes, 2003, and Afonso and Fernandes, 2008).

There are very few studies on public spending efficiency in the East Asian region. Most of the conclusions from the literature have been based on either developed countries or developing countries outside the East Asian region. As highlighted by Haque and Osborn (2007), there are significance differences in the composition of public expenditure and regulatory framework between developed and developing countries, making the conclusion somewhat vague. Hence, this study analyses public spending and the effect of political and economic factors on public spending efficiency in selected East Asian countries.

3. METHODOLOGY AND DATA

Measures of efficiency are based on the ratio of observed output levels to the maximum level that could have been obtained for a given input level. This maximum level constitutes the efficient frontier that will be the benchmark for measuring the relative efficiency of the observations. There are various techniques to estimate this frontier and these methods have recently been applied to examine the efficiency of public spending (Murillo-Zamorano, 2004). In our study we used the Data Envelopment Analysis (DEA) method based on Banker, Charnes and Cooper (1984) to estimate inefficiency. DEA is a non-parametric linear programming-based technique designed to calculate relative efficiency based on the sample countries' efficient production frontier (Casu and Molyneux, 2003). The most efficient countries operate on the frontier, while countries below the frontier are considered to be inefficient. According to Koop, Osiewalski and Steel (2000), economic growth can occur if a country is able to avoid inefficient use of resources and move closer to the world production frontier. We employ the output-oriented variable return to scale (VRS) model with the assumption that the government maximizes output in each economic sector given a fixed amount of expenditure. Equation 1 shows the Bankers, Charnes and Cooper (1984) model for calculating technical efficiency.

$$\max \theta$$

subject to

$$\sum_{j=1}^{n} \lambda_j x_{ij} \leq x_{io} \qquad i = 1,2,..., m$$

$$\sum_{j=1}^{n} \lambda_j y_{rj} \geq \theta y_{ro} \qquad r = 1,2,..., s$$

$$\sum_{j=1}^{n} \lambda_j = 1$$

$$\lambda_j \geq 0 \qquad j = 1,2,..., n \tag{1}$$

where DMU_0 represents one of the n DMUs under evaluation, and x_{io} and y_{ro} are the ith input and rth output for DMU_0, respectively. λ_j are unknown weights, where j = 1, 2, …n represents the number of DMUs. The optimal value of θ^* represents distance of sector from the efficient frontier. Hence, the most technical efficient country will have $\theta^*=1$ and the inefficient country exhibits $\theta^*<1$. The VRS model is a better representation of efficiency analysis with the assumption that output levels cannot be reduced proportionately with the levels of input. By solving the above mathematical programming problem, we are able to get public spending efficiency scores for each country's sector in each year for the period 2000-2007.

In the second stage, after having estimated the efficiency scores, we analysed the effect of governance, political, and economic policies on the efficiency of each sector's public spending by estimating a regression where the efficiency score is included as the dependent variable. Since the efficiency scores take a value between 0 and 1, we estimated a Tobit regression model on panel data based on Equation 2.

$$Eff_{jt} = \alpha + \beta_1 PS_{jt} + \beta_2 VA_{jt} + \beta_2 CL_{jt} + \beta_6 M_{jt} + \beta_7 T_{jt} + \beta_8 F_{jt} + e_{jt} \tag{2}$$

where:

Eff_{jt} = Efficiency score of country j at time t for each sector
PS_{jt} = Political stability of country j at time t
VA_{jt} = Voice and accountability of country j at time t measures the freedom of the citizen in the selection of government

CL_{jt} = Civil liberty of country j at time t as a proxy for political situation
M_{jt} = Money growth of country j at time t as a proxy of government monetary policy
T_{jt} = Trade freedom of country j at time t to measure country's openness in terms of trade policy
F_{jt} = Financial freedom of country j at time t to measure country's financial openness
e_{jt} = Error terms of country j at time t

Political stability (PS) is used to measure the governance of the country. A higher political stability index indicates that the country has less political risk and hence will increase the efficiency of public spending allocation, distribution, and stabilization (Musgravian indicators). Besides this, according to Rayp and Sijpe (2007), good governance enables the strengthening of rule of law and safeguarding of political stability, which results in higher efficiency of the government. On the other hand, the voice and accountability index (VA) measures the freedom of citizens in the selection of government, while civil liberty measures freedom of speech, assembly, demonstration, religion, equal opportunity, and excessive governmental intervention (Kaufmann, Kraay and Mastruzzi, 2009). A higher voice and accountability index indicates that citizens are in a position to select their own government, and hence the government is relatively more cautious in their spending which leads to higher public spending efficiency. Likewise, lower civil liberty (CL - higher value signifies less political freedom) indicates that the public exercises considerable freedom of speech, and this again might increase the efficiency level of the government. Nevertheless, higher voice and accountability and lower civil liberty might also reduce government efficiency, especially in developing countries, as it signals the sensitivity of government to popular opinion, which may halt the enactment of public sector reforms (Rayp and Sijpe, 2007).

Monetary growth (M) indicates how the government implements its monetary policy. As pointed out by Rayp and Sijpe (2007), higher monetary growth implies less budgetary constraints, and hence the government might be complacent in controlling its spending, resulting in a lower efficiency level. The openness of the country is measured by trade freedom (T) and financial freedom (F). These are positive indicators for public spending efficiency as more economic freedom in terms of trade and finance contributes more efficiency in government spending (Koop, Osiewalski, and Steel (2000). In addition, trade openness is expected to be positively related to public spending efficiency as it increases the degree of

international competition over labour and capital, which would penalize public inefficiency.

4. MEASUREMENT OF INPUTS AND OUTPUTS

In measuring efficiency it is important to correctly define the inputs and outputs. We divide public spending of the central government into two categories based on the study by Afonso, Sckuknecht and Tanzi (2005): Opportunity indicators and Musgravian indicators. The Opportunity indicators consist of spending on administration, education, health, and public infrastructure. They are used to reflect the quality of interaction between fiscal policies and market processes. Expenditureon infrastructure, communication, and information systems, which are categorized under public infrastructure, is believed to facilitate growth in the private production function as well as to reduce the transportation costs of private entities (Feehand and Matsumoto, 2002). Spending on education is also believed to increase the proportion of knowledge and skilled workers in the economy, which contributes to the development of human capital. In addition, Zagler and Dürnecker (2003) highlighted the importance of government spending on health care, which reduces illness and absenteeism, and hence increases the quantity of labour as well as its productivity in a country's economy. As a result the opportunity indicators are important as they contribute directly to economic growth (Devarajan, Swaroop and Zou, 1996)).

On the other hand, Musgravian indicators reused to measure government performance in terms of allocation, distribution, and stabilization. According to Afonso et al. (2003) the Musgravian indicators are used to measure the outcomes of the interaction of economic growth with the responses taken by the government in the market process. Hence, the economic stability indicator is used to achieve the stabilization objective of the government, whereas the allocation indicator serves as a signal for allocative efficiency. Efficiency in terms of allocation, distribution, and stabilization is crucial because it reflects the efficient use of public resources and high-quality fiscal policies by a particular country (Afonso et al., 2006). A sound fiscal policy is crucial because it contributes to macroeconomic stability and the sound policy mix of a country. It also creates expectations in the economy which foster economic growth in the long run (Afonso, Schuknecht and Thone, 2005). Table 1 presents the variables employed as inputs and outputs for both Opportunity and Musgravian indicators.

5. DATA

This study employs panel data from selected East Asian countries (Indonesia, Malaysia, Philippines, Singapore, Thailand, China, Japan, and South Korea) for the period 2000-2007. The countries were selected so as to compare the performance of ASEAN countries with the leading Asian countries and main trading partners. Data on various measures of inputs and outputs used to estimate public spending efficiency were obtained from Euromonitor International (2010), while data on political stability, voice and accountability, civil liberty, money growth, trade freedom, and financial freedom used in the second-stage regression are from Kaufmann, D., Kraay, A. and Mastruzzi, M. (2009).

6. RESULTS AND DISCUSSION

Table 2 shows the average efficiency scores of each country's economic sector for the period 2000 to 2007. China is relatively efficient in public spending on education and health, as well as in maintaining the economic performance and stability of the country. On the other hand, Japan is the most efficient in public spending on infrastructure with an efficiency score of 86.05%, followed by China and Singapore with efficiency scores of 77.33% and 76.13%, respectively. Singapore is found to be the most efficient in public spending for promoting public services with an efficiency score of 85.39%. The results also show that countries in East Asia are relatively less efficient in public spending for promoting equal distribution of income.

Table 1: Inputs and outputs vector on public spending efficiency

Opportunity indicators		
Sector	**Input**	**Outputs**
Administrative	Government expenditure on public services as percentage of total government expenditure	• Corruption in government • Regulatory quality • Government effectiveness
Education	Government expenditure on education as percentage of total government expenditure	• Secondary school enrolment • Adult literacy rate
Health	Government expenditure on health as percentage of total government expenditure	• Infant mortality rate • Life expectancy at birth • Immunization against measles

Infrastructure	Government expenditure on economic affairs as percentage of total government expenditure	• Electricity power transmission • Standard telephone lines per 100 inhabitants
Musgravian indicators		
Distribution	Government expenditure on social security and welfare as percentage of total government expenditure	• GINI coefficient (income inequality)
General economic performance	Total government expenditure per capita	• Percentage of employed population • GDP per capita • Annual GDP growth rate
Economic stability	Total government expenditure per capita	• 3 years moving average of GDP growth rate • Inflation rate

Table 2: Average technical efficiency scores of selected East Asian countries by economic sector (2000-2007)

Country	Education	Health	Infrastructure	Public services	Distribution	Economic stability	Economic performance
Indonesia	0.270	0.093	0.162	0.023	0.112	0.604	0.357
Malaysia	0.062	0.024	0.285	0.109	0.306	0.218	0.286
Philippines	0.072	0.086	0.056	0.040	0.246	0.465	0.351
Singapore	0.052	0.024	0.761	0.854	0.276	0.449	0.888
Thailand	0.054	0.015	0.084	0.155	0.121	0.350	0.580
China	0.806	0.835	0.773	0.043	0.507	0.903	0.960
Japan	0.105	0.009	0.861	0.381	0.024	0.102	0.530
South Korea	0.078	0.203	0.362	0.189	0.052	0.346	0.575

Table 3 presents statistics of government expenditure on education as a percentage of GDP and adult literacy rates for the selected East Asian countries for the period 2000 to 2007. The table clearly illustrates that China spends the lowest percentage of government expenditures on education yet is able to improve the level of education with an increase in the adult literacy rate from 90.9% in 2000 to 93.3% in 2007. In Japan and South Korea adult literacy rates are high but a substantial amount was spent in this area, so China has relatively efficient public spending on education.

Table 3: Average government spending on education and adult literacy rate for selected East Asian countries (2000-2007)

Country	Government expenditure on education (% of GDP)	Adult literacy rate (%)
Indonesia	0.754	90.350
Malaysia	5.900	90.375
Philippines	2.828	92.900
Singapore	3.652	93.488
Thailand	3.965	93.388
China	0.174	92.413
Japan	3.933	99.900
South Korea	2.952	98.138

Source: ©2010 Euromonitor International

Table 4 shows the statistics of government spending on health as a percentage of GDP and health effectiveness indicators such as infant mortality rates and life expectancy for the countries in East Asia for the period 2000 to 2007. The statistics indicate that China spent the least amount on health from its country income but wasable to achieve the highest infant mortality rate of above 30% from 2000 to 2007. This demonstrates China's relatively efficient public spending on health.

Table 4: Average government spending on health, infant mortality rate, and life expectancy for selected East Asian countries (2000-2007)

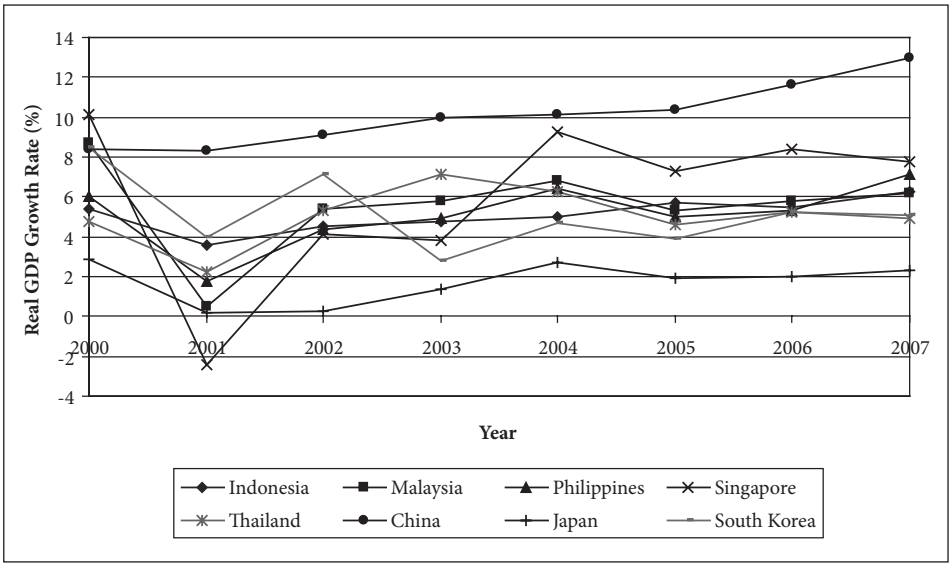
Country	Government expenditure on health (% of GDP)	Infant mortality rates per '000 live births	Life expectancy at birth: total population
Indonesia	0.257	29.763	67.163
Malaysia	1.802	7.850	73.425
Philippines	0.293	14.025	70.663
Singapore	1.020	2.500	79.138
Thailand	1.779	5.750	69.338
China	0.020	29.538	71.238
Japan	6.570	2.863	81.838
South Korea	0.159	4.275	77.475

Source: ©2010 Euromonitor International

The success of China in terms of economic performance and stability can be seen from its relatively high growth rates of real GDP, which exceeded 8% from 2000 to 2007. This is clearly illustrated in Figure 1, where the real GDP growth accelerates from2000 and reaches as high as 13% in 2007.Next, Japan is the most efficient in public spending on infrastructure, with a reported efficiency score of 86.05%, followed by China and Singapore with reported efficiency scores of 77.33% and 76.13%, respectively. This might be because Japan has relatively high technology public transportation and infrastructure, which are well-known in the rest of the world.

Singapore is found to be the most efficient in promoting public services with reported efficiency scores of 85.39%. According to Lim (1997), the Singaporean public services' efficiency is mainly due to less complexity in the government agency. Citizens are easier to mobilize and are able to react faster to government policies due to its small size compared to other countries in the region. In addition, maintaining the commitment to be free from corruption and nepotism further contributes to the success of the public services in Singapore.

Figure 1: Real GDP growth (%) for selected East Asian countries (2000-2007)



Source: ©2010 Euromonitor International

Table 5 present the estimation results of the factors that affect public spending efficiency. The results show that political stability has a positive effect on public

spending efficiency for both Opportunity and Musgravian indicators. This is particularly true as political stability reduces risk and smoothes the government's delivery process. Nevertheless, voice and accountability seem to be negatively related to public spending efficiency and are significant at the 1% level. This suggests that too much political freedom might have an adverse effect on government spending. Rayp and Sijpe (2007) point out that government tends to be overly sensitive to public opinion, which may prevent them from implementing public sector reforms due to a free public voice. This finding is reinforced by the result showing that efficiency of public spending in education, health, and infrastructure are negatively related to civil liberty. This again indicates that government tends to be overly sensitive to public opinion, hence slowing down the implementation of public sector policy (Afonso, Sckuknecht and Tanzi, 2006).

Trade freedom is found to be negatively related to government spending efficiency for Opportunity indicators and economic performance. However, financial freedom seems to be positively related to public service and economic performance efficiency. This might be due to the fact that financial liberalization enables the creation of more transparent government, which contributes to public service efficiency. According to Deliktas and Balcilar (2005), more liberal economies promote public spending efficiency. In addition, financial liberalization also increases capital inflow and investment opportunities from foreign country into the host country, hence increasing the level of economic output, which contributes to an increase in economic performance efficiency.

Table 5: Tobit estimation of public spending efficiency equation

	Education	Health	Infrastructure	Public services	Economic performance	Economic stability	Income distribution
Constant	1.040 (0.148) [7.019]***	1.521 (0.171) [8.880]***	0.733 (0.206) [3.556]***	-1.321 (0.141) [-9.349]***	0.850 (0.161) [5.288]***	0.811 (0.196) [4.146]***	0.209 (0.233) [0.895]
Political stability	0.061 (0.024) [2.491]**	0.090 (0.023) [3.944]***	0.354 (0.034) [10.456]***	0.110 (0.019) [5.646]***	0.153 (0.029) [5.253]***	-0.037 (0.032) [-1.149]	0.039 (0.025) [1.563]
Voice and accountability	-0.271 (0.114) [-2.363]**	-0.310 (0.106) [-2.927]***	-0.450 (0.120) [-3.758]***	0.107 (0.076) [1.414]	-0.310 (0.110) [-2.822]***	-0.360 (0.111) [-3.241]***	-0.158 (0.092) [-1.719]*
Civil liberties	-0.044 (0.049) [-0.897]	-0.081 (0.047) [-1.736]*	-0.146 (0.055) [-2.648]***	0.118 (0.037) [3.186]***	-0.062 (0.050) [-1.237]	-0.070 (0.052) [-1.340]	0.022 (0.036) [0.591]
Money growth	0.071 (0.119) [0.596]	0.118 (0.109) [1.090]	0.065 (0.219) [0.298]	0.000 (0.119) [0.001]	0.033 (0.123) [0.268]	-0.153 (0.152) [-1.005]	-0.131 (0.102) [-1.284]
Trade freedom	-0.008 (0.002) [-3.795]***	-0.016 (0.002) [-6.771]***	0.005 (0.002) [2.077]**	0.010 (0.001) [7.420]***	-0.007 (0.002) [-3.125]***	-0.004 (0.002) [-1.754]*	-0.002 (0.003) [-0.560]
Financial freedom	-0.003 (0.002) [-1.629]	0.001 (0.002) [0.442]	-0.004 (0.003) [-1.462]	0.009 (0.001) [5.925]***	0.009 (0.002) [3.936]***	0.003 (0.002) [1.706]*	0.001 (0.001) [0.567]
Sigma	0.143 (0.014) [10.193]***	0.139 (0.012) [11.250]***	0.205 (0.017) [12.363]***	0.105 (0.010) [11.439]***	0.145 (0.016) [9.301]***	0.150 (0.013) [11.148]***	0.144 (0.019) [7.723]***
Log-likelihood	33.861	35.510	10.756	53.632	32.769	30.532	33.296

Notes: ***, **, * denotes significance at 1, 5, and 10 % level respectively. Standard errors in parentheses and z-statistics in [ ].

7. CONCLUSION

This paper analyses public spending efficiency and the effect of political and economic factors on public spending efficiency in selected East Asian countries for the period 2000- 2007. By employing DEA and Tobit regression analysis, the study shows that China is relatively efficient in public spending on education and health and in maintaining economic performance and stability. The relative efficiency of China can be demonstrated by the fact that China spent the least amount on health from its country income but was able to achieve the highest infant mortality rate of above 30% from 2000 to 2007. Likewise, China spend the least percentage of government expenditure on education but was able to improve the level of education with an increase in the adult literacy rate of90.9% in 2000 to 93.3% in 2007.On the other hand, Japan is the most efficient in public spending on infrastructure. This might be due to the fact that Japan has relatively high technology public transportation and infrastructure, which are well-known in the rest of the world. Singapore is found to be the most efficient in promoting public services. The efficiency of Singapore's public services' is mainly due to less complexity in the running of its government agencies. Citizens are easier to mobilize and able to react faster to government policies due to its smaller size compared to other countries in the region. The results also show that countries in East Asia are relatively less efficient in public spending for promoting equal income distribution.

The results also show that the more politically stable the country, the more efficient it is. This result is consistent with theory and supports the results of Rayp and Sijpe (2007) and Feeny and Rogers (2008). The results also show that excessive political freedom has a negative effect on government spending efficiency. Civil liberty is also negatively related to spending efficiency in education, health, and infrastructure. This is consistent with Rayp and Sijpe's conclusion (2007) that a lower measure of civil liberty contributes to higher efficiency. The results also show that public services and economic performance efficiency are positively related to financial freedom, consistent with Rayp and Sijpe (2007) and Angelopoulos, Philippopoulos and Tsionas (2008).

The results suggest that governments should strive for political stability and liberalize their financial market in order to increase public spending efficiency. However, governments should be careful as unlimited political freedom could harm government spending efficiency.

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