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Does good governance matter for FDI inflows? Evidence from Asian economies

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This paper examines the effects of the six components of good governance on foreign direct investment (FDI) inflows in 15 Asian economies for the period 1996–2007 using a fixed effect model for panel data with heteroskedasticity corrected standard errors. The study also employs the feasible general least square (FGLS) and Prais-Winstein panel estimation methods in order to check the consistency of the results with the fixed effect model. The empirical results reveal that of the six components of good governance, political stability and absence of violence, government effectiveness, rule of law, and control of corruption are the key determinants of FDI inflows, as they exhibit consistent results under different models. However, the study finds no significant evidence with voice and accountability and regulatory quality in FDI inflows. The study reveals that human capital, infrastructure, lending rate, and GDP growth rate also have a significant influence on FDI inflows. We conclude that a country which can enhance its governance environment in general is likely to attract more foreign direct investment despite offsetting deficiencies in other dimensions of good governance such as voice and accountability and regulatory quality.

Keywords: FDI inflow; good governance; human capital; infrastructure; openness and market size

1. Introduction

Since the late 1990s, the study of the linkage between ‘good governance’ and foreign direct investment inflows (FDIs) has received attention from different scholars for a number of reasons. First, FDI is sensitive to ‘country specific political risk’, meaning that countries which have prudential laws and regulations and institutional efficiencies in order to protect the property rights and civil rights of an investor can better attract FDIs and vice versa (Mody and Srinivasan 1998, Hall and Jones 1999, Stevens 2000, Roll and Talbott 2001, Globerman and Shapiro 2003, Albuquerque 2003, Acemoglu et al. 2005, Li and Filer 2007). Second, FDI is elastic to the ‘transaction cost of investments’ which implies that foreign capital tends to flow in a country where investors can receive adequate financial returns from their investments (Coase 1937, North 1990, King and Levine 1993, La Porta et al. 1998, OECD 2001). In other words, transparency and accountability in operations, enforcement status of laws in case of violation of rules and contracts, and ease of doing business are viewed as the essential governance variables that reduce the transaction cost of investments. This, in turn, motivates investors to launch their capital in a foreign country. Finally, FDI is influenced by the ‘trust and confidence’ of the investors.
which basically refers to ‘the perception of investors’ regarding government fiscal and monetary policies as well as the macroeconomic stabilities of a country (Brewer 1993, Dunning 2002, Acemoglu and Johnson 2005). In fact, no one feels interest to invest in a country where institutional loopholes encourage corruption, red tape increases the transaction cost of investment, and where the government can expropriate investments. Thus, good governance infrastructure is widely considered as a prerequisite to FDI inflows in a country.

From this perspective, FDI inflows to China create a puzzle. China has become a major recipient of foreign direct investments among countries in Eastern, Southern and Southeastern Asia since the late 1980s. Figure 1 illustrates that China has achieved an exceptional growth rate in receiving FDI from countries in Eastern, Southern and Southeastern Asia in 2007 compared to 1996. However, other countries in Southern Asia like Bangladesh and Sri Lanka have performed very poorly in attracting FDI during the period 1996–2007.

China has a poor legal system and a poor record of property rights protection. Democracy, transparency and accountability are not integral to the Chinese community. On the governance environment index, China ranks the lowest of all 48 countries (Li 2005). Whereas countries like India, which has a democratic political system with checks and balances and a legal system based on the British Common Law tradition that provides good protection of property rights and civil rights, has only attracted one-tenth of China’s FDI amount. Thus, a question arises whether good governance indicators significantly affect a host country’s ability to attract FDI or not? This paper attempts to answer this question by studying empirically the effects of the ‘good governance

Figure 1. Net FDI inflows in selected countries in Asia (1996 and 2007).
indicators’ estimated by Kauffmann et al. (1999a, b) on the FDI inflows in 15 economies of Eastern, Southern and Southeastern Asia. It is to be noted that these governance indicators presently cover 212 countries and territories and are regarded as the best governance indices in the world (Kaufmann et al. 2009). Apart from these governance indicators, the study also considers some control variables like human capital, domestic capital, infrastructure, interest rate, trade openness, GDP growth rate, labour force, real GDP and arable land ratio to examine their impacts on FDI inflows. To our knowledge, there are only a few comprehensive empirical studies that investigate the link between the various components of good governance and FDI inflows in Asian economies and thus, this study is expected to add new knowledge in the FDI literature.

The study proceeds as follows, section 2 presents a theoretical framework of the study, section 3 operationalizes governance variables and other control variables of the study followed by data sources and their expected relationship with the dependent variable. Section 4 describes our statistical model. Section 5 discusses the results of the study, and finally, section 6 concludes with some policy remarks.

2. Theoretical framework

The theory of ‘comparative advantage’ attributed to David Ricardo (1817) can be traced as fundamental to the international capital flows. The underlying assumption of this theory is that international transactions are more likely to take place in countries that exhibit lower relative production costs. This theory also coincides with the general theory of ‘cost-benefits’, and ‘financial rate of return’ in that a rational investor feels interested to supply capital only if he finds reasonable returns on the cost of his investment. The above theories assume risk neutrality and focus on marginal productivity of capital or physical investment. However, when the risk neutrality assumption is removed, risk becomes an important factor upon which the FDI decision is made. The theory of ‘portfolio management’ by Tobin (1958) and Markwitz (1959) explains the reasons for FDI inflows to a particular country. Theories on ‘agency cost’ (Berle and Means 1932, Jensen and Meckling 1976), ‘transaction cost’ (Coase 1937, Williamson 1975), ‘modern property rights’ (Coase 1960, Demsetz 1967) and ‘information asymmetry’ (Arrow 1963, Akerlof 1970) explain that economic actors (investors) tend to undertake business activities in countries that can offer solid property rights protection and a congenial business environment by minimizing the different transaction costs of the business. Importantly, this transaction cost can be minimized when markets are integrated both at the national and international level. Since foreign players have larger volumes of assets with a broader access to international markets, the average transaction cost for an economy can be reduced through FDI. In other words, in an imperfect market, firms always have an incentive to create an internal market through common ownership in order to save certain marketing costs and to improve profitability. This internalization of markets across national boundaries leads to FDI. In tune with this, Dunning (1993) proposes ‘eclectic theory’ and concludes that FDI flows across countries due to location and ownership advantages, as well as power, to internalize transactions costs. However, with the rising pressures of globalization, competition and economic integration, the locational and ownership advantages presumably fail to explain why some countries attract more FDI compared to others. The theory of ‘institutions’ set forth by North (1990) that places emphasis on the quality of the governance infrastructure of a country, received attention by many scholars to explain the flows of modern foreign capitals across countries. The economic essence of this theory is that apart from the traditional ‘macro-economic
formal institutions such as constitutions, prudential laws and regulations, taxations, insurance and government policies as well as informal norms of behaviour like traditions, habits and customs affect the perception and willingness of investors to commit to foreign direct investment in a country. These rules and regulations limit opportunism and build transactional trust in financial transactions, and ultimately influence international players to engage in cross border transactions (North 1990). By the same token, Brewer (1993), King and Levine (1993), La Porta et al. (1997, 1998) examine effects of institutional environment like rules, regulations, government policies and informal codes of behaviour on FDI inflows and conclude that a status of well enforced prudential rules and regulations as well as stable government policies facilitate capital market development and FDI inflows. Globerman and Shapiro (2002) argue that the governance infrastructure of a country indicates the quality of its investment environment, and thus creates favourable conditions for attracting FDI as well as economic growth. According to Kaufmann (2005), the ‘development dividend’ of a good governance infrastructure is found to be 300%. This implies that a country that has $2000 per capita income per year can attain $6000 per capita income per year in the long-term if it improves its rule of law, controls corruption and ensures government effectiveness. This development is augmented not only through better flow of international capital but also through the effective use of domestic capital, public resources and human capital, which are crucial for economic development. Since 2003, a number of studies have further documented the link between institutional quality and international capital movements (Globerman and Shapiro 2003, Acemoglu et al. 2005, Alfaro et al. 2005, Fan et al. 2007). The focus has now been shifted to the application of institution theory or say, governance infrastructure elements to examine the pattern of FDI inflows across countries, in addition to the traditional macro economic factors.

3. Variables, data sources and their expected relationship

Good governance

In this paper, we primarily employ six good governance indicators estimated and updated by Kaufmann et al. (1999b, 2009). They are as follows:

(1) **Voice and accountability.** These capture the participation ability of people to select their government as well as freedom of expression, association and a free media. We like to term this variable as ‘VOA’. In empirical literature, Stasavage (2002) documents a strong relationship between the presence (absence) of political ‘checks and balances’ and FDI flows. He concludes that the average long-run effect of moving from an authoritarian system (i.e. few checks and balances) to a political system where the executive and legislature are controlled by separate parties (i.e. multiple checks and balances) would be an increase of 16% in private investment. Similarly, using different econometric techniques and periods, Harms and Ursprung (2002), and Busse (2004) argue that multinational corporations (MNCs) are more likely to be attracted to countries that have democracy. *Following the above empirical evidences, we expect a positive relation between voice and accountability and FDI inflows in our study.*

(2) **Political stability and the absence of violence.** Political stability and the absence of violence measure the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional means including politically motivated violence and terrorism. Political stability is essential if markets are to work effectively in guiding resource allocation and fostering confidence of economic...
agents in undertaking long-term investment. Political stability in the host country is indeed important, foreign firms are reluctant to invest their capital in areas of high uncertainty. It is to be noted that almost all the rapidly growing East Asian countries have maintained political soundness during the key development years and such a political stability has in fact enabled governments in East Asia to materialize their long-term plans into reality. Therefore, in this study, we like to term the political stability and absence of violence indicator as ‘PSAB’ and expect a positive link with FDI inflows.

(3) Government effectiveness. This indicates the freedom and quality of public and civil services and the quality of the government to formulate policies and implement them. We like to define this factor as ‘GOVE’ in our study and assume that this factor is positively related with inward FDI. Rammal and Zurbruegg (2006) examine the impact of changes in the quality of government regulatory effectiveness and governance practices on the direction of outward FDI flows between the five Association of Southeast Asian Nations (ASEAN) economies of Indonesia, Malaysia, Philippines, Singapore, and Thailand. The results show that a deterioration in the effectiveness and enforcement of investment regulations such as price controls and excessive regulation in foreign trade and business development have an adverse effect upon intra-ASEAN FDI and are significant factors in explaining the recent downward trend in ASEAN FDI flows.

(4) Regulatory quality. This postulates the ability of the government to formulate sound policies for private sector development. In other words, regulatory quality measures market-friendly policies such as lifting price controls or inadequate bank supervision as well as other efforts to lessen excessive regulations in areas of foreign trade and business development. According to the theory of political economics, governments are the controllers, regulators, and adjudicators of business sectors. Governments are also instrumental in creating legislation to regulate the economy, to frame the competitive environment and factor endowment, and to establish a regulatory environment in which business is conducted (Rugman and Verbeke 1998, Henisz 2000). Thus, regulatory quality is assumed to have a positive relation with inward FDI, in this paper we abbreviate this variable to ‘RQ’.

(5) Rule of law. This indicates the quality of contract enforcement as well as the likelihood of crime and violence. Rule of law in broad terms includes: an effective, impartial and transparent legal system that protects property and individual rights; public institutions that are stable, credible and honest; and government policies that favour free and open markets. These conditions encourage FDI and presumably private domestic investment as well, by protecting privately held assets from arbitrary direct or indirect appropriation. Globerman and Shapiro (2003) report that the quality of ‘governance infrastructure’ (i.e. legislation, regulation and legal systems) is a key determinant of both the location and amount of the United States’ FDI flows to 143 countries from 1995 to 1997. Lee and Mansfield (1996), conducted one of the first empirical investigations of the possible linkage between a developing country’s Intellectual Property Right (IPR) protection system and the volume and composition of US FDI in that country, and conclude that the strengthening of IPR protection has a positive effect on FDI inflows. In a more recent study, Javorcik (2004) examined the effect of IPR on the composition of FDI for a group of transition economies in Eastern Europe and the former Soviet Union. The study concludes that weak IPR protection has a negative effect on FDI in
technology-intensive sectors. Similarly, Nunnenkamp and Spatz (2004) investigated the IPR-FDI linkage using sectorally disaggregated FDI data for a large sample of host countries and argued that stronger IPR protection played a positive role in attracting FDI. Following the above empirical evidences, we expect that regulatory quality will be positively associated with inward FDI, and we term this variable as ‘ROL’.

(6) Control of corruption. This shows the extent to which public power is exercised for private gains including corruption as well as capture of the state by elites and private interests. We define this variable as ‘COC’ in this paper. With respect to the control of corruption, Vittal (2001) notes that if China manages to reduce red tape and corruption and enhance better rule of law and property protection, it could potentially double its FDI. Similarly, he argues that if corruption levels in India come down to those of Scandinavian countries, the GDP growth rate would increase by 1.5% and FDI will grow by 12%. Likewise, Wei (2000) analyzes data on FDI from 12 source countries to 45 host countries in the early 1990s and finds that high levels of corruption have a significant negative effect on investment. In a similar vein, Brunetti and Weder (1997) report that weak respect for the rule of law and high levels of corruption have a large negative effect on private investment in the 60 countries they examined. Based on their results, the authors argue that had Nigeria (a high corruption country) been able to reduce graft levels to those of Hong Kong (a low corruption country) over the 15-year period (1974–1989) of their study, it would have been able to increase its investment rate by more than 5% – from 16% to over 21% of GDP. Following the above empirical evidence, we expect that ‘control of corruption’ will be positively associated with inward FDI.

Beside the above good governance elements, FDI is also influenced by market related economic determinants like market size, level of domestic investment, openness, interest rate and GDP growth rate, and efficiency related economic determinants such as infrastructure, human capital, labour force and natural resource endowment of the host economy. In this paper, we use the above market and efficiency related economic determinants as control variables of the study. The description of the control variables and their expected relations with FDI are given below:

(a) Market size. Endogenous growth theory indicates that countries with a larger market size are expected to grow faster because of the benefits of the scale of economies. Therefore, it is presumed that inward FDI will tend to flow in countries that have larger market size, as a substantial market provides opportunities to foreign investors’ to enjoy the lower per unit costs of production and distribution. Moreover, large market size may generate ‘agglomeration economies’ that lower costs for all producers in the market (Krugman 1991). Further, the ‘market adoption theory’ signifies that foreign firms primarily target the domestic market for achieving high growth and then expand to the regional and international markets for ensuring better returns from their investment. A significant number of studies use real GDP as a measure of market size (Mbekani 1997, Chen 1997, Morisset 2000, Chakrabarti 2001, Ramirez 2006, Adhikary and Mengistu 2008). As GDP represents good approximation about the size of the economy, this study considers real GDP as an indicator of market size and expects to have a positive and significant relation with FDI inflows.

(b) Human capital. Human capital is generally considered a complementary factor to physical capital. It implies skilled people, that is, skill acquired by individuals through a
process of investment in education, health and training. Knowledge is now regarded as a new factor of production, innovation and growth. Nelson and Phelps (1966) suggest that a large stock of human capital makes it easier for a country to absorb new products or ideas that have been discovered elsewhere. In essence, the differences in the level of a countries’ education or human capital lead to differences in their capacity (1) to invent new technologies; (2) to adapt and implement technologies developed elsewhere; and (3) to attract other factors such as investment in physical capital, which also contribute to economic growth and development. The World Bank (1993) finds that a 10% increase in the primary and secondary school enrollment ratio can lead to a 0.3% increase in the growth rate of per capita GDP. This implies that countries with more human capital are likely to grow faster and the increased growth rate, in turn, motivates foreign investors to supply capital. In tune with the World Bank’s measurement of human capital, in this paper, we consider the level of secondary school educational attainment ratio as a proxy of the stock of human capital and assume that a positive relation exists between human capital and FDI inflows.

(c) **Domestic investment.** The theoretical linkage between domestic flow of funds and FDI inflows ought to be positive, albeit with mixed results. For instance, some scholars think that FDI could be a threat to the young growing companies/firms with limited capital outlays in comparison with MNCs, since young domestic firms will be unable to compete against the MNCs with huge capital outlays. As a result, this could possibly lead to the extinction of such small local firms. Conversely, the experience of emerging economies, especially FDI driven economies in East Asia, confirms that FDI and domestic investment are complementary. Clearly, FDI can play a complementary role with domestic investment by working together with local firms in the form of ‘joint ventures’. The first reason for an investment to be carried out jointly by more than one firm is when the cost of the project is enormous. Due to joint venture investment, it would be much easier to share costs and complement the managerial skill gap that is absent in many developing countries. Therefore, it has been assumed that the more the domestic capital flourishes in a country, the more the international capital flows and thus we include domestic capital in our study. Following the empirical literature, we use the ‘fixed capital formation to GDP ratio’ as a proxy of domestic capital (Moosa and Cardak 2006).

(d) **Infrastructure.** A sound infrastructure minimizes the cost of doing business by increasing effective labour hours. Cross-country studies by Canning and Bennathan (2000) indicate that infrastructure, particularly telecommunications infrastructure, significantly increases economic growth rate. It is widely believed that the combined effects of low investment levels and poor infrastructure shrink sizable manufacturing activity and often lead to a low level of productivity (Sachs et al. 2004). Thus, physical infrastructure such as communication services, road networks, energy sources, schools and health services are regarded as some of the key infrastructure required for better FDI inflows. In this study, we chose the number of telephones per 1000 people as a proxy of infrastructure following the study of Canning and Bennathan (2000).

(e) **Interest rate.** The impact of the interest rate (i.e. the lending rate by the commercial banks) on FDI flows is found to be ambiguous in many studies (Bende et al. 2000, Banga 2003). We can argue that a high lending rate represents the high cost of capital for entrepreneurs and this (high cost of capital) ultimately demands the higher internal rate of returns (IRR) on the investment. A high cost of capital discourages potential entrepreneurs from undertaking businesses activities. On the contrary, a high lending rate in the host country may motivate foreigners to supply capital as they usually have
low cost capital. This further implies that international joint ventures can be done easily with countries that have a shortage of low cost capital. Therefore, we include interest rate as a determinant of FDI inflows and consider commercial banks’ lending rates to represent interest rates in a country.

(f) **Openness.** The degree of trade openness of a given country is assumed to be one of the necessary stimulants to attract FDI. Accordingly, the catching-up theory explains that other things being equal, the faster the rate of innovation in advanced economies, the higher the scope of growth via imitation for laggard economies. Clearly, the higher the technology flows from the leader to the follower via international trade, *ceteris paribus*, the faster the diffusion process is likely to be (Baumol *et al.* 1994). World Bank (1993) studies 51 countries during the period 1960–1989 and concludes that economic openness (the degree of trade liberalization) has a statistically positive impact on the total factor productivity (TFP) growth. Also, Ang (2008) notes that a one percentage point increase in trade openness generates about a 1.094–1.323 percentage point increase in FDI inflows in China. However, in order to indicate openness, some scholars use ‘export as a percentage of GDP’ (Sin and Leung 2001, Moosa and Cardak 2006) while others use ‘total trade volume as a percentage of GDP’ (World Bank 1993). Sachs and Warner (1995) have developed a dummy variable considering five individual dummy variables on the specific trade related policies of a country for measuring the degree of openness, this measurement is viewed as more robust than simple indicators. Therefore, in this study, we use Sachs and Warner’s (1995) dummy variable as an indicator of trade openness.

(g) **Labour force.** One of the main reasons for foreign investors looking abroad is the availability of cheap labour that would decrease their production costs, compared to the country of origin (Dunning 1993). UNCTAD (1994) reports that the growth rate of a labour force positively affects FDI inflows. The endogenous growth theory hypothesizes that labour abundant countries are more likely to develop varied skills at a lower cost which can be deployed in different fields for augmenting growth. In order to define labour force, Barro and Sala-i-Martin (1999) note that the working age population (aged between 15 and 65) could be the best variable to measure the scale effects, however, the data on working age population has major problems of measurement, especially for poorer countries. In this case, they note that the total population instead of the working age population can be considered as an indicator of labour force. On the contrary, some scholars like Lucas (1993), Schneider and Frey (1985), and Wheeler and Mody (1992) use product wage (nominal wage/GDP deflator) as a measure of labour force. However, following Barrow and Sala-i-Martin (1999), this study considers total population as a proxy for labour force and expects a positive relation with FDI inflows.

(h) **Growth in GDP.** A government that has generated an impressive economic growth rate in the past is likely to attract more foreign investors to its country. The simple reason is that the stable GDP growth rate represents soundness and stability of economic policies, and the effectiveness of the government institutions which are mainly looked for in international transactions. A high GDP growth rate also indicates how well-off consumers are in a country (Globerman and Shapiro 2003). An impressive GDP growth rate measures the buying ability of a country which, in turn, shows economy of scale. Fan *et al.* (2007), encouraged by past growth performance, note that foreign investors overflow China in anticipation of improved institutions. Thus, a significant and positive relation is expected between GDP growth rate and FDI inflows in a country.
(i) **Natural resource endowment.** The factor natural resource endowment in this study has been proxied by arable land ratio to total land. In general, the relations between natural resource endowment and FDI inflows are expected to be positive, since the abundance of such resources motivates foreign firms to be engaged in various sectors. However, the ‘Rybezynski Theorem’ suggests that an abundance in natural resources may retard the development of other lines of production, such as manufacturing, through the ‘Dutch Diseases’ effect. In this case, therefore, a negative relationship may be expected between FDI inflow and an abundance of arable land. Thus, the effect of the abundance of arable land on FDI inflows is ambiguous. However, in this study, we expect a positive relation between them.

In summary, inward FDI is attracted by the governance infrastructure, market related economic determinants and efficiency related economic determinants. This paper, however, seeks to measure the effects of good governance elements on FDI inflows keeping other elements as control variables. In doing so, the independent and control variables which are discussed in this section and their expected relations with FDI inflows are summarized in Table 1. The study covers the whole period (1996–2007) wherein the governance data is available and includes 15 economies namely: China, Hong Kong, Indonesia, South Korea, Singapore, Malaysia, Thailand, Philippines, Vietnam, Cambodia, Brunei, India, Pakistan, Bangladesh, and Sri Lanka which are important economic players in Asia.

### 4. The basic econometric model

The question we seek to address in this paper is whether the good governance elements, as measured by Kaufmann *et al.* (1999, 2009), affect FDI inflows over time and across countries? In doing so, we also consider the impact of physical, human and macroeconomic factors on FDI inflows as control variables. Accordingly, a summary form of our model is specified as follows:

\[
\ln \text{FDI}_{it} = \lambda + \psi \text{GGI}_{it} + \beta \text{CV}_{it} + \epsilon_{it}
\]  

Where the dependent variable, \( \ln \text{FDI} \), is the natural logarithm of the net FDI values in flows rather than in stock; \( \lambda \) is a common fixed effect term; GGI is the vector of good governance index; CV is a package of policy and intuitional variables included in the model as relevant control variables, \( \psi \) and \( \beta \) are the parameters of governance indices and control variables respectively and \( \epsilon \) is idiosyncratic errors. The subscript \( i \) indexes the countries under study and \( t \) denotes the year.

Since good governance again is to be broken down into six components according to the plan identified in section 2 of this paper, our final model becomes as follows:

\[
\ln \text{FDI}_{it} = \lambda + \psi_1 \text{VOA}_{it} + \psi_2 \text{PSAB}_{it} + \psi_3 \text{GOVE}_{it} + \psi_4 \text{RQ}_{it} + \psi_5 \text{ROL}_{it} + \psi_6 \text{COC}_{it} + \beta \text{CV}_{it} + \epsilon_{it}
\]  

Where, VOA, PSAB, GOVE, RQ, ROL and COC represent index of voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption respectively as indicators of good governance. \( \psi_1 \sim \psi_6 \) are the parameters of the six good governance indicators; \( \ln \text{FDI}, \text{CV}, \lambda, \beta \) and \( \epsilon \) are the same as defined in Equation (1).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>+/-</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice and Accountability (VOA)</td>
<td>Voice and accountability index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Political Stability and Absence of</td>
<td>Political stability and absence of violence index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Violence (PSAB)</td>
<td></td>
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<tr>
<td>Government Effectiveness (GOVE)</td>
<td>Government Effectiveness index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Regulatory Quality (RQ)</td>
<td>Regulatory quality index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Rule of Law (ROL)</td>
<td>Rule of law index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Control of Corruption (COC)</td>
<td>Corruption index</td>
<td>+</td>
<td>Daniel Kauffman Good Governance data base</td>
</tr>
<tr>
<td>Human Capital</td>
<td>Secondary school enrollment ratio</td>
<td>+</td>
<td>WDI database</td>
</tr>
<tr>
<td>Domestic Capital</td>
<td>The ratio of fixed capital formation to GDP</td>
<td>+</td>
<td>WDI database</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Telephone/1000 people</td>
<td>+</td>
<td>WDI database</td>
</tr>
<tr>
<td>Lending Interest Rate</td>
<td>Bank lending interest rate</td>
<td>-</td>
<td>WDI database</td>
</tr>
<tr>
<td>Log (GDP)</td>
<td>Real GDP</td>
<td>+</td>
<td>WDI database</td>
</tr>
<tr>
<td>Labor Force</td>
<td>Population size</td>
<td>+</td>
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<tr>
<td>Growth in GDP</td>
<td>Growth in GDP</td>
<td>+</td>
<td>WDI database</td>
</tr>
<tr>
<td>Arable Land Ratio</td>
<td>The ratio of arable land to total land of each country</td>
<td>+</td>
<td>WDI database</td>
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</table>
The model takes both the cross-section dimension and the time-series dimension into consideration. In line with this, a test for heteroskedasticity is conducted using the Breusch-Pagan test and the White test, and hence the null-hypothesis of homoskedasticity is rejected at 1% and 10% significance levels, respectively. This implies that there is evidence of heteroskedasticity in which the error variance is not constant. Consequently, a test for serial correlation for error terms is conducted using the Wooldridge test for autocorrelation in panel data, the result yields a p-value of 0.5761, which implies there is no evidence of serial correlation (first order autocorrelation) and hence, the error terms are not correlated. Moreover, though the stationary test for panel data is a recent phenomenon, this study employs the Levin-Lin-Chu test for stationarity and confirms that the null-hypothesis of non-stationarity is rejected at the1% significance level, i.e. the data is stable with a constant mean, variance and standard error.

5. Empirical results and main findings

(a) Descriptive statistics

The descriptive statistics shown in Table 2 reveal that the average inward FDI in logarithmic form is about 8.37 with a sample range of almost zero (minimum) and 10.831 (maximum). This implies that countries under study largely vary with receiving FDI over the study period. For instance, net FDI inflow to China in 2007 is recorded at about $67.82 billion which is extremely high in comparison to Bangladesh and Sri Lanka that receive a meagre $0.81 billion and $0.23 billion respectively during the same year. The six components of good governance indicators also vary largely from country to country with a huge range. For example, political stability and the absence of violence index vary from a minimum value of −2.44% to about 58.7%. This may be due to the fact that countries in South Asia such as Sri Lanka and Pakistan have suffered from serious political instability whereas most of the East Asian countries enjoyed political stability. The political soundness of the East Asian countries could be one of the key reasons for their economic success including higher FDI inflows as well. Similarly, government effectiveness and rule of law indices vary from a minimum of −1.12% and −1.2% to a maximum of 73% and 69% respectively. This indicates that countries in South, East and Southeastern Asia are largely heterogeneous in providing quality public and civil services, formulating and implementing sound policies, and ensuring the rule of law for their people. The same is found to be true regarding regulatory quality and the control of corruption that vary from a minimum of −1.05%, and −1.32% respectively to a maximum of
66.8% and 68.3% respectively. However, the voice and accountability index shows a minimum average fluctuation among the six components of good governance that varies a minimum of $-1.7\%$ to a maximum of $0.75\%$ during the sample period. This indicates that Asian countries under study exhibit more or less similar characteristics in the case of the participation ability of the people to select their governments as well as freedom of expression and a free media.

Among the control variables, the human capital index which is proxied by a secondary school enrolment ratio shows a wide variation in the sample period. Although the average secondary school enrolment ratio for the whole sample is about 66.6%, a close look at Table 2 reveals that it has a very wide range from 15% (minimum) to 102% (maximum). This large variation indicates that those countries that achieved the highest secondary school enrolment ratio are from East Asia. Similarly, the average domestic investment, that is proxied by the ratio of fixed capital formation to GDP, is found to be 25% on average with a range of 10.4% (minimum) and 43.1% (maximum). Moreover, the physical infrastructure variable which is proxied by the number of telephones per 1000 people has a wide variation from about less than one telephone (minimum) to about 182 telephones per 1000 people in some countries. Further, the lending interest rate varies from about 5% in some countries to about 32.2% in other countries. All these imply that not all countries in the region practice similar macro-economic policy measures.

With respect to GDP growth rate, another wide range of variation is found among countries in the study where the whole sample average growth rate is about 5.4% with a minimum growth rate of $-13\%$ and a maximum growth rate of 13.5%. This provides a further indication that some of the countries, mostly in South Asia, have experienced very low performance and even negative GDP growth, while most of the countries in East Asia such as China achieved a growth rate of 13.5% in some years. The countries considered in this study also vary in terms of their arable land endowments. Accordingly, the mean arable land ratio for the full sample is about 21%, with a minimum range of 0.87% and a maximum range of 62%. This gives us evidence that some countries in the sample suffer from high arable land scarcity while others are endowed with high arable land resources.

In summary, countries included in the study depict a wide gap with regard to quality of

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observation</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnFDI</td>
<td>180</td>
<td>8.372</td>
<td>2.638</td>
<td>0</td>
<td>10.831</td>
</tr>
<tr>
<td>VOA</td>
<td>180</td>
<td>-0.388</td>
<td>0.667</td>
<td>-1.7</td>
<td>0.75</td>
</tr>
<tr>
<td>PSAB</td>
<td>180</td>
<td>3.460</td>
<td>11.935</td>
<td>-2.44</td>
<td>58.7</td>
</tr>
<tr>
<td>GOVE</td>
<td>180</td>
<td>6.905</td>
<td>18.049</td>
<td>-1.12</td>
<td>73</td>
</tr>
<tr>
<td>RQ</td>
<td>180</td>
<td>6.778</td>
<td>17.420</td>
<td>-1.05</td>
<td>66.8</td>
</tr>
<tr>
<td>ROL</td>
<td>180</td>
<td>5.702</td>
<td>15.967</td>
<td>-1.2</td>
<td>69</td>
</tr>
<tr>
<td>COC</td>
<td>180</td>
<td>4.556</td>
<td>13.616</td>
<td>-1.32</td>
<td>68.3</td>
</tr>
<tr>
<td>Human Capital</td>
<td>180</td>
<td>66.581</td>
<td>22.752</td>
<td>15</td>
<td>102.256</td>
</tr>
<tr>
<td>Domestic Capital</td>
<td>180</td>
<td>24.895</td>
<td>7.279</td>
<td>10.383</td>
<td>43.114</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>180</td>
<td>41.643</td>
<td>48.043</td>
<td>0.248</td>
<td>182</td>
</tr>
<tr>
<td>Lending Interest Rate</td>
<td>180</td>
<td>10.654</td>
<td>4.857</td>
<td>5</td>
<td>32.154</td>
</tr>
<tr>
<td>Openness</td>
<td>180</td>
<td>115.547</td>
<td>95.984</td>
<td>22.187</td>
<td>462.463</td>
</tr>
<tr>
<td>Log (GDP)</td>
<td>180</td>
<td>11.323</td>
<td>0.655</td>
<td>9.9</td>
<td>12.8</td>
</tr>
<tr>
<td>Log (Population Size)</td>
<td>180</td>
<td>7.651</td>
<td>0.889</td>
<td>5.481</td>
<td>9.121</td>
</tr>
<tr>
<td>Arable Land Ratio</td>
<td>180</td>
<td>20.988</td>
<td>16.486</td>
<td>0.871</td>
<td>62.103</td>
</tr>
</tbody>
</table>
governance, human capital, infrastructure, and other macro-economic variables and thereby their ability to attract inward FDI.

(b) Regression results

The empirical results based on FEM, FGLS and Prais-Winston panel-estimation methods with corrected heteroskedasticity standard errors are presented in Table 3. The empirical results from all three estimation techniques reveal that Political Stability and Absence of Violence (PSAB) in a host country is crucially important for stimulating FDI inflow. This is perhaps due to the fact that foreign firms are reluctant to invest their capital in areas of high uncertainty, and hence, host economies should maintain a stable political atmosphere that will foster confidence among foreign firms to invest their capital.

Government Effectiveness (GOVE), which refers the capacity of the state to implement sound policies, has been found to be a statistically significant determinant in explaining FDI inflow to a host economy. This has been much confirmed in the case of successful East Asian economies in that they, in general, have consistently improved government regulatory effectiveness and governance practices in attracting huge FDI inflow in their respective countries.

In line with this, the empirical results reveal that the Rule of Law (ROL) variable is also an important component of good governance infrastructure that plays a positive role in facilitating FDI inflows to a host economy. The implication is that an effective, impartial and transparent legal system that protects property and individual rights and public institutions that are stable and credible encourage not only foreign investors to undertake long-term investment, but also increase domestic investment in a sustainable way. Moreover, institutionalizing an effective rule of law is also instrumental in protecting intellectual property rights and thereby promoting innovations and inventions.

Table 3. Regression results under different estimation methods.

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>FE</th>
<th>FGLS</th>
<th>Prais Winsten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice and accountability</td>
<td>1.142 (.1033)</td>
<td>-0.0615 (.0446)</td>
<td>-0.4099 (.3078)</td>
</tr>
<tr>
<td>Political stability and</td>
<td>0.2452*** (.0857)</td>
<td>0.0489*** (.0248)</td>
<td>0.1650* (.0877)</td>
</tr>
<tr>
<td>absence of violence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government effectiveness</td>
<td>0.2494** (.1112)</td>
<td>0.3908*** (.1074)</td>
<td>0.4705* (.2621)</td>
</tr>
<tr>
<td>Regulatory quality</td>
<td>0.1405 (.0936)</td>
<td>-0.0015 (.0353)</td>
<td>0.0372 (.1167)</td>
</tr>
<tr>
<td>Rule of law</td>
<td>0.4031* (.2169)</td>
<td>0.1156*** (.0555)</td>
<td>0.2617*** (.1037)</td>
</tr>
<tr>
<td>Absence of corruption</td>
<td>0.1032 (.0803)</td>
<td>0.2058*** (.0367)</td>
<td>0.1961** (.0876)</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.0025 (.0546)</td>
<td>0.0099*** (.0030)</td>
<td>0.0122* (.0074)</td>
</tr>
<tr>
<td>Domestic capital</td>
<td>0.0017 (.0501)</td>
<td>0.0087* (.0052)</td>
<td>0.0094 (.0271)</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.0538*** (.0157)</td>
<td>0.0049*** (.0021)</td>
<td>0.0245* (.0137)</td>
</tr>
<tr>
<td>Lending interest rate</td>
<td>0.1528* (.0896)</td>
<td>0.1338*** (.0113)</td>
<td>0.1348** (.0625)</td>
</tr>
<tr>
<td>Openness</td>
<td>0.0101*** (.0041)</td>
<td>0.0011 (.0011)</td>
<td>-0.0010 (.0040)</td>
</tr>
<tr>
<td>Log (GDP)</td>
<td>3.6965 (3.693)</td>
<td>-0.4204 (.2983)</td>
<td>-0.6795 (1.0610)</td>
</tr>
<tr>
<td>Log (Population Size)</td>
<td>21.423 (15.535)</td>
<td>0.8703*** (.2540)</td>
<td>0.9181 (.8443)</td>
</tr>
<tr>
<td>Growth in GDP</td>
<td>0.0685 (.0595)</td>
<td>0.1569*** (.0105)</td>
<td>0.1764*** (.0672)</td>
</tr>
<tr>
<td>Arable land ratio</td>
<td>-0.2406 (.263)</td>
<td>-0.0045 (.0152)</td>
<td>0.0023 (.0120)</td>
</tr>
<tr>
<td>Constant</td>
<td>131.081 (96.218)</td>
<td>7.0202 (1.8576)</td>
<td>9.1316 (6.0892)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>178</td>
<td>178</td>
<td>178</td>
</tr>
<tr>
<td>Number of groups</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>R-square</td>
<td>0.3107</td>
<td>0.2765</td>
<td>0.2852</td>
</tr>
</tbody>
</table>

Notes: (a) Figures in parentheses indicate standard error. (b) *, ** and *** indicate level of significance at 10%, 5% and 10% respectively.
Similarly, the empirical analysis – particularly the FGLS and the Prais-Winston regression results – confirm that Control of Corruption (COC) is a statistically significant determinant in explaining FDI inflow. The rationale is that a high level of corruption usually increases the transaction cost of investment and is likely to exacerbate the information asymmetry problem.

6. Discussion

This study has found tangible evidence that the political stability and absence of violence, government effectiveness, rule of law, and control of corruption are the key elements of ‘good governance’ that are crucially important for stimulating FDI inflow in the host country. However, this study has found no evidence for the remaining two elements of good governance, voice and accountability and regulatory quality, significantly affect FDI inflows. This implies that a country that can enhance political stability, rule of law, quality of public and civil services, and ensure a low level of corruption is likely to attract more foreign investors despite offsetting deficiencies in other dimensions of good governance such as voice and accountability and regulatory quality. This may perhaps be due to the fact that not all democratic governments have a high quality governance infrastructure and not all autocratic countries have a poor quality governance system. The results also reflect the reality that many of the East Asian economies including that of semi-democratic one’s have achieved enormous FDI inflows because of their capability to enhance at least some of the key components of good governance particularly rule of law, political stability, government effectiveness and low level of corruption.

Governance infrastructure is not the only factor that can contribute to economic well-being and create a favourable climate for FDI. Other important control variables including human capital, physical infrastructure, economic growth, lending rate, domestic capital, and the availability of cheap labour are also found to be positive and significant factors for FDI inflow. Indeed, it is not surprising to find that the human capital, which literally means trained manpower and physical infrastructure play a positive and significant role in speeding up inward FDI. In fact, these results are consistent with previous arguments in that the key for success in the countries of East Asia lie with their ability to invest in education and physical infrastructure despite their poor natural resource endowments.

Likewise, the study reveals that a good economic growth track record and the availability of cheap labour are conducive to FDI inflows in a country. These findings also imply that a government that can generate impressive economic growth rates in the past followed by cheap labour tends to favour more FDI despite deficiencies in other contributing factors. This phenomenon is particularly observed in China. China has been able to attract a lion share of FDI inflows in the Asian region because of its impressive GDP growth rates and cheap labour costs since the late 1980s.

Interestingly, the study disapproves earlier arguments with respect to domestic capital which warn that foreign investment can displace local firms/investments. Rather, the study finds that domestic investment and FDI are indeed complementary to each other. However, the positive and significant relationship between lending interest rates and FDI inflow indicates that the higher the ratio of host country borrowing cost to the foreign country borrowing costs, the higher the inflow of FDI in the host country.

However, the study unveils no evidence for natural resource endowments such as the abundance of arable land to be a significant factor for FDI inflows. This finding is consistent with the general trend of growth performance including FDI inflows in East Asian economies which are characterized by arable land or other natural resources scarcity.
and yet performing very well in attracting FDI compared to other natural resource abundant regions such as Africa and Latin America.

In summary, the empirical results reveal that good governance indicators like rule of law, political stability and absence of violence, government effectiveness, and the control of corruption play a significant role for in facilitating FDI in a country. The reason is that these indicators create transactional trust and confidence which every foreign investor looks for before making any irreversible financial commitment like FDI. If a government builds an effective, impartial and transparent legal system that controls level of corruptions, protects property rights and individual rights, and ensures political stabilities, it can attract more FDI despite having inefficiencies in other institutions. The empirical results further reveal that government policies that favour free and open markets, encourage domestic investment and help to build human resources are of paramount importance to augment inward FDI of a country.

7. Conclusions, implications and policy recommendations

It is widely argued that a country’s economic performance over time is determined to a great extent by its political, institutional and legal environment (OECD 2001). As FDI has been shown to promote host country growth, and the governance environment of the host country affects both domestic and foreign investors, it is a natural extension of the literature to consider the impact of governance infrastructure on cross-country differences in FDI flows. Accordingly, the empirical results from this study have confirmed that good governance infrastructure, in general, exerts a significant and positive influence on FDI inflows. More specifically, among the six indicators of good governance defined by Kaufmann et al. (1999, 2009), political stability and absence of violence, rule of law, the control of corruption and government effectiveness are found to be robust determinants in attracting a high level of foreign direct investment. The remaining two elements of good governance (voice and accountability, and regulatory quality), however, do not show significant influence to FDI inflows. As a whole, it can be argued that economies that have a higher quality governance infrastructure tend to attract more FDI than economies with poor quality governance. However, it should be noted that not all democratic governments have high quality governance and not all autocratic countries have poor quality governance. While regime type and favourable policy-mix may still play significant roles in attracting FDI inflows, the quality level of governance that enhances the rule of law, fights corruption, and maintains political stability is a much greater factor in determining the level of FDI it attracts. More importantly, the study reveals that a more representative political arrangement along with an accountable authority system that institutionalizes rule of law could be a security for adequate and stable property rights, and hence, could be instrumental for foreign investors to invest their capital in a longer-term.

In tune with this, the empirical results reveal that good governance efforts to improve the education levels and skills of the people are also quite important to speed up FDI inflow in the host economy. This may imply that an increased FDI demands the availability of an educated and skilled workforce to minimize costs and standardize products. Side by side, a relatively well-developed physical infrastructure, stable and predictable macroeconomic policies, higher GDP growth rates over the past years, favourable trade policies, domestic capital formation and cheap labour are also of paramount importance to speed-up FDI inflows.

However, the wide range of statistics and empirical evidence within Asian economies reveal that some of the countries, especially from South Asia, have not performed well in
attracting FDI mainly because of a lack of good governance, low level of human capital, poor infrastructure, and political and macroeconomic instabilities. This, therefore, creates a wake-up call for policy makers in South Asian countries to give due attention to enhancing good governance environments, especially improving law and order, the quality of public and civil services, to build an effective impartial and transparent legal system, and control institutional corruptions which are currently important for getting FDI. South Asian countries should invest more on human capital, boost domestic investment, maintain macro-economic stability and encourage trade openness for facilitating inward FDI which may further create a dynamic spillover effect in their economies, as is already witnessed in East and Southeastern Asia. Finally, policy makers should keep in mind that the real issue is not whether the policy environment is generally interventionist or laissez-faire but whether policies are properly structured to address the basic requirements of investment attraction and thus, economic growth at large.

Notes
1. ‘Governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; the respect of citizens and the state for the institutions that govern economic and social interactions among them’ (Kaufmann et al. 2009).
2. Kauffmann et al. (1999a, b) defines six components of good governance which are: voice and accountability, political stability and lack of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption.
3. Macro-economic factors are inflation, GDP growth rate, exchange rate, life expectancy, human capital and so on.
4. Agglomeration economies are more closely associated with economies of scale and network effects. In other words, agglomeration economies are used to indicate the benefits received by the producers by industry clustering and locations.

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References


