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Institutions and investment in South and East Asia & Pacific region: Evidence from meta-analysis

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Institutions and Investment in South and East Asia & Pacific Region: Evidence from Meta-Analysis

Denise Donna Hawkes and Sridevi Yerrabati

Abstract

Given the important role inward FDI can play in accelerating economic growth and transformation, developing countries are interested in attracting it. This study contributes to evidence based policy making and to academic research on governance FDI relationship by meta synthesising 771 estimates from 48 empirical studies published from 1980 – 2012. In comparison to less regulated and high corrupt countries meta-regression results show that countries with high regulation and low levels of corruption are able to attract more FDI. Countries with stronger legal systems are positively related to inward FDI. As expected, aggregate governance is found to have a positive effect on inward FDI.

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Keywords FDI; governance; meta-regression analysis; systematic literature review; South and East Asia & Pacific countries

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1. Introduction

Given the important role inward FDI can play in accelerating economic growth and transformation, developing countries are interested in attracting it. Amongst many other benefits such as creating employment and increasing technological development, inward FDI provides a more stable source of external financing than sources such as private debt and portfolio flows (Gastanaga et al., (1998); Globerman and Shapiro (2002a); Gani (2007)). Hence, countries in South and East Asia & Pacific region have liberalised their FDI regime and have pursued policies to attract FDI. They have also addressed various governance related issues to maximise such attraction. However, whether governance in these countries has achieved the purpose or not remains debatable.

Hence, the aim of this study is to contribute to evidence based policy making and to academic research on governance FDI relationship by providing meta synthesis of empirical evidence on various measures of governance and FDI, identifying factors causing heterogeneity in results, pointing to policy implications of our results and identifying potential avenues for future research within this field of study. In order to achieve the research aim, we raise the following questions: Is there a genuine effect of measures of governance on inward FDI? What is the directionality of such effect? We answer these questions by using all available empirical evidence obtained using systematic literature review from 1980 – 2012 on effects of governance on inward FDI.

The definition of economic governance has evolved over the last few years. According to Kaufmann et al, (1999) 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; and the respect of citizens and the state for the institutions that govern economic and social interactions among them. Good, transparent and efficient governance in host countries

ensures the safety of investments and thus attracts foreigners to invest. While there are many international and local authorities which give both subjective and objective information on governance, literature in the field of governance and inward FDI has used four main sources. They are worldwide governance indicators provided by Kaufmann et al., (1996) under World Bank project, Freedom House measure of voice and accountability and political rights, Polity dataset and International Country Risk Guide (ICRG).

These different datasets on the quality of governance raise the issue of divergence in various measures of governance measured by these institutions. In order to synthesise governance – growth effects, we delved deeper into the sub measures of each measure of governance to synthesise them based on the common sub measures. After observing the individual variables (representative sources) that have been used in measuring governance by these different data sources, we have classified governance into 7 measures based on World Wide governance measures. These seven measures are termed hereafter as voice and accountability, political stability, government effectiveness, regulation, law, corruption and aggregate governance.

The rest of the paper is organised as follows. Section 2 presents systematic review of literature with section 3 outlining the methodology used in the study. Section 4 presents results followed by concluding remarks in section 5.

2. Literature Review

While it is generally believed that good governance in a host country helps in attracting inward FDI, most of the empirical studies show that this is not the case. A systematic literature review of these empirical papers is presented here with a view to unearthing the issues within existing literature in terms of differences in their findings and the reasons causing such differences.

2.1 Theoretical view on governance and inward FDI

Two main theoretical frameworks have been used in explaining the relationship between economic governance and inward FDI. Firstly, Dunning's OLI framework (1980) explains various reasons for which an MNC enters into a host country. According to Dunning (1980) an MNC will enter a host country when each of the ownership, location and organisation factors are met. In this context, economic governance can be seen as a location factor which might deter investments or serve as a helping hand for foreign investors depending on the form of investment and the industry into which these investments flow.

Secondly, North (1991) in his institutional theory posits that institutions in the form of political, economic and structural interactions are human-made constraints which aim to decrease the level of uncertainty and allow for firms and individuals to interact efficiently. While governance aims to facilitate investments, they effect transaction (ex: cost of protecting property rights) and transformation costs (ex: by effecting production interruptions) which in turn effects the profitability of such investments (Dahlstrom and Johnson, 2007). Both Dunning's and North's theories suggest that based on contextual factors, governance can have either positive or negative effects on FDI.

2.2 Empirical view on governance and inward FDI

Empirical studies on the measures of governance and inward FDI for South and East Asia & Pacific region that have been identified in the search are: Gastanaga et al.,(1998), Globerman and Shapiro (2002a), Globerman and Shapiro (2002b), Hsiao and Shen (2003), Anghel (2004), Globerman and Shapiro (2004), Gani (2007), Hur et al., (2007), Adeoye (2009), Brunetti and Weder (1998), Wernick et al., (2009), Ali et al., (2010), He et al., (2011), Muhammad et al. (2011), Jadhav (2012), Luca and Spatafora (2012), Habib and Zurawicki (2001), Wei (2000), Teksoz (2004), Voyer and Beamish (2004), Straub (2005), Dahlstrom and Johnson (2007), Khamfula (2007), Brouthers et al., (2008), Cole et al., (2009), Sadig (2009), Woo and Heo

(2009), Qian et al., (2012) and Mathur and Singh (2013), Nigh and Schollhammer (1987), Singh and Jun (1995), Busse and Hefeker (2005), Baek and Qian (2011), Zheng (2011) and Driffield et al., (2012), Seyoum (1996), Lee and Mansfield (1996), Ahn et al., (1998), Li and Resnick (2003), Nunnenkamp and Spatz (2004), Ahlquist (2008), Mayer (2006), Elo (2007), Yackee (2008), Zhang and Fu (2008), Akisik and Pfeiffer (2009), Rai (2009), Azemar and Desbordes (2010), Binici (2010), Goodspeed et al., (2010), Arbatli (2011), Davis (2011) and Gordon et al., (2012), Cyrus et al., (2006), Fan et al., (2009), Arbatli (2011), Busse et al., (2011), Wang et al., (2011), Harms and Ursprung (2002), Addision and Heshmati (2003), Jensen (2003), Li and Resnick (2003), Jensen & McGillivray (2005), Busse (2004), Blanton & Blanton (2007), Choi (2008), Guerin and Manzocchi (2009), Doces (2010). All these studies are grouped based of the measure of governance namely, voice and accountability, political stability, government effectiveness, regulation, law, corruption and aggregate governance.

Voice and accountability captures the extent to which citizens in a country have freedom of expression, freedom of association & media and have a voice in the government (Wernick and Haar, 2009). Voice and accountability can affect FDI by inclusion or exclusion of public opinion on investments which can in turn allow or deter foreign investments (Gani, 2007). Studies by Globerman and Shapiro (2002a), Jadhav (2012), Woo and Heo (2009), Busse and Hefeker (2005), Zheng (2011), Li and Resnick (2003), Davis (2011), Gordon et al., (2012), Harms and Ursprung (2002), Jensen (2003), Jensen & McGillivray (2005), Busse (2004), Blanton & Blanton (2007), Choi (2008), Guerin and Manzocchi (2009) and Doces (2010) have reached mixed conclusions on the role of voice and accountability on inward FDI.

On the one hand, results reported by Globerman and Shapiro (2002a), Busse and Hefeker (2005), Zheng (2011), Harms and Ursprung (2002), Jensen (2003), Jensen & McGillivray (2005), Busse (2004), Blanton & Blanton (2007), Choi (2008) and Doces (2010) show that voice and accountability has a positive and significant effect on FDI. On the other hand Jadhav (2012) and Guerin and Manzocchi (2009) show that voice and accountability has a negative and significant

effect on FDI. Others like Woo and Heo (2009), Li and Resnick (2003) and Gordon et al., (2012) report mixed results.

Political stability¹ measures the solidity of government to political shocks, terrorism and domestic violence which can eventually reduce the risk of doing business and deter investments. Presumably foreign investors would like to invest in countries with political stability to ensure the continuity of policies by government. Studies focusing on this measure of governance are Globerman and Shapiro (2002a), Anghel (2004), Jadhav (2012), Singh and Jun (1995), Busse and Hefeker (2005), Baek and Qian (2011), Gordon et al., (2012), Busse et al., (2011) have generated mixed results. While Anghel (2004), Baek & Qian (2011) and Busse et al., (2011) found positive and significant effect, negative and insignificant effect is shown by Jadhav (2012).

Government effectiveness measures the quality of public services and the insulation of those services from political pressure. Through government effectiveness, government can exert discretionary power on economic activities by designing and implementing economic policies which can either deter or encourage investments (Globerman and Shapiro (2002a), Anghel, (2004)). Studies by Gastanaga et al., (1998), Arbatli (2011), Gordon et al., (2012) and Jensen (2003) show mixed effects of government effectiveness on FDI under different models.

Regulation as one of the elements of governance indicators is the widest and diverse measure as it includes regulation related to aspects such as intellectual property rights, environment regulations, restrictive capital controls, accounting standards and corporate governance and tax and tariffs. Regulation captures the ability of a government in generating these policies and using them to promote private sector development. Through these policies regulation can affect FDI as they can either speed up or delay the investments alongside affecting the cost of investments. There have been only three studies that have looked at the impact of Globerman and Shapiro (2002a), Jadhay (2012), Gordon et al., (2012) which reported positive and significant, positive

and insignificant and mixed effect respectively leaving a scope for both further research and conclusive results.

Law can affect investments through various legal institutions and property rights protection. This measure also includes the quality of contract enforcement, the police, the courts and the likelihood of crime. In a country where there are weak legal institutions and property rights protection, very few foreign investors would like to invest as it would put their investments at risk and vice versa. Positive and significant effect is shown by Anghel (2004), Gani (2007), Jadhav (2012) and Fan et al., (2009). While Globerman and Shapiro (2002a) have shown positive and insignificant effect of rule of law, Arbatli (2011) has shown negative and insignificant effect. Studies by Busse and Hefeker (2005) and Gordon et al., (2012) have reported mixed effects.

Corruption is viewed as one of the important measures of governance as it has an important bearing on investments. Corruption measures the extent to which public goods are misused or used for private purposes by individuals. However, corruption cannot be considered in isolation from other governance related factors as bad governance is closely associated with corruption. Studies by Gastanaga et al., (1998), Globerman and Shapiro (2002a), Hsiao and Shen (2003), Anghel (2004), Gani (2007), Jadhav (2012), Habib and Zurawicki (2001), Wei (2000), Teksoz (2004), Voyer and Beamish (2004), Straub (2005), Dahlstrom and Johnson (2007), Khamfula (2007), Sadig (2009), Mathur and Singh (2013), Woo and Heo (2009), Goodspeed et al., (2010), Gordon et al., (2012) and Jensen (2003) have focused on the effect of corruption on inward FDI.

Corruption is considered to affect foreign investments in two ways – increase in cost of investments leading to decrease in profitability of such investments and increase in uncertainty levels in host country. Some studies have also shown that corruption 'greases the wheels' of investments rather than 'sands the wheels of investment' (Globerman and Shapiro (2002a), Gastanaga et al., (1998), Hsiao and Shen (2003) and Teksoz (2004)).

Finally, Globerman and Shapiro (2002b), Globerman and Shapiro (2004), Hur et al., (2007), Adeoye (2009), Wernick, Haar and Singh (2009), Ali et al., (2010), Muhammad et al. (2011), Luca and Spatafora (2012), Ahlquist (2008), Goodspeed et al., (2010), Gordon et al., (2012) have focused on the effect of aggregate governance on inward FDI. Overall governance includes various political, legal and institutional factors in a country that can have a bearing on investments. While governance is expected to show a positive effect on foreign investments by providing impartial, effective and efficient conditions to operate, there is no conclusive evidence on this.

Mixed results and seemingly contradictory arguments on the empirical relationship between measures of governance and inward FDI can be attributed to various measurements, conceptual and methodological differences in these studies (appendix 5). Given this situation, policy makers may be uncertain as to what kind of policy they should propose in order to create a favourable investment climate for foreign investors in terms of economic governance.

In order to address the above inconclusiveness, as outlined in the introduction section this study has the following research aims; firstly, to deal with the effect of measures of governance on inward FDI and secondly with respect to heterogeneity. With regards to the effect, the following two questions are raised: firstly, is there any genuine effect of each measure of governance (voice and accountability, political stability, government effectiveness, regulation, corruption and rule of law) on the inward FDI into South and East Asia & Pacific countries? Secondly, what is the directionality of such effect? With respect to differences in reported results the following questions will be answered. Why do governance-FDI studies report such divergent results? Is the heterogeneity due to the data generating process or is it due to differences in research design? An overall summary of this study is given in appendix 6.

3. Methodology

The review methodology used in this thesis i.e the methods used for searching studies, study selection, critical evaluation and data extraction is informed by three sources. First, Cambell and Cochrane Collaboration guidelines on systematic reviews in health care and social policy; second, Centre for Reviews and Dissemination (CRD, 2009) of the University of York; third, Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) of the Institute of Education. Data analysis is informed by Doucouliagos et al., (2010), Doucouliagos and Ulubasoglu (2008) and Stanley and Doucouliagos (2012). Reporting guidelines are informed by Stanley et al., (2013).

We started by establishing a pre-established search criteria to identify all studies in the English language on measures of dependent variable (FDI) and independent variable (governance). This is done in two stages: the first stage involves identifying databases for published and unpublished studies. The second stage involves specifying key words, searching databases and storing results.

For published studies, databases such as EBSCO host (Business and economics database), web of knowledge (social sciences), International Bibliography of the social sciences (Economics, politics, sociology, anthropology and Economics), Science direct (science and humanities), Swetswise and JSTOR (social sciences) were used. For unpublished studies, databases such as World Bank e-library, Harvard Kennedy e-library, Asian Development Bank e-library, National Bureau of economic research and IMF e-library were used. In addition to these databases, two search engines namely Google scholar and web of knowledge provided by University of Greenwich were utilised. In addition to the above, manual search was performed in order to identify grey literature using two approaches – snowball approach and random search of studies in 5 journals. Under the snowball approach we have started with the reference list of studies identified through systematic review and proceeded to find new studies. These exhaustive

searches were carried out to identify all possible studies on measures of governance and inward FDI.

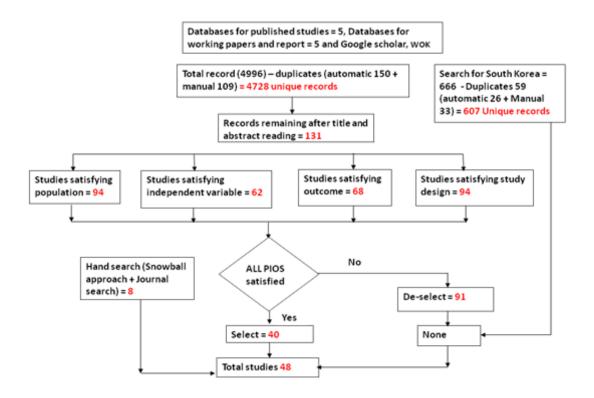


Figure 1: Summary of methodology used in the study

With a pre-defined list of key words for measures of governance and inward FDI (appendix 1), 'title', 'abstract', 'text' and 'keyword' were searched in the above databases. The time period of the study was January 1980 – December 2012. A total number of 4996 studies were retrieved which have analysed the relationship between measures of governance and inward FDI. From this, 150 and 109 duplicate studies were removed using automatic and manual duplicate searches respectively. This left a total of 4728 unique studies for further screening. Figure 1 summarises the methodology used in this study.

The relevance of each study was checked based on whether the study estimates or analyses the relationship between measures of governance and inward FDI? While the earlier study is coded as 'E', later ones are coded are 'T'. If a study estimates and analyses the relationship then it is coded as 'TE'. Studies which do not satisfy any of these criteria are not included in meta-

analysis. 131 studies were selected from the initial screening stage and these were considered for the critical evaluation stage. This was done using PIOS (Population-Independent variable-Outcome variable-Study design) criteria (appendix 2). While 94, 62, 68 and 94 studies have satisfied population, independent variable, outcome variable and study design respectively, only 40 studies have satisfied all four criteria (appendix 3). Another 8 studies were added to this number by hand searching, making a total of 48 studies for meta-analysis. Our exclusive search for studies on South Korea did not result in any records.

The following data were obtained from 48 studies. Firstly, bibliographical information such as name of the first author and University, year of publication of study and type of study (whether it is a published or unpublished study). Secondly, study characteristics such as kind of data used, information on dependent and independent variables such as their functional form and their data sources, and estimation methods. Thirdly, outcome related information such as estimated parameters, t values, standard errors, P value, Z value, F value for linear, non linear and squared terms was obtained.

The general form of econometric model used in the primary empirical studies with linear terms only (equation 1) and that with linear, non-linear and squared terms (equation 2) is shown below:

$$Y_{it} = \alpha_0 + \alpha_1 X_{it} + \gamma F_{it} + \varepsilon_{it}$$
 equation (1)

$$Y_{it} = \alpha_0 + \alpha_1 X_{it} + \alpha_2 X_{it} \cdot K_{it} + \alpha_3 X_{it}^2 + \gamma F_{it} + \varepsilon_{it} \qquad \text{equation (2)}$$

In above equations,

Y – Inward FDI

X - Measures of governance,

F- Vector of other variables

i – Country indices

t – Time indices

 α_0 Constant term

α₁ – Marginal effect of governance on Y

X · K – Interaction term of measures of governance with K

X² – Non-linear term of measures of governance

 α_2 - Measures the effect of X.K on inward FDI conditional on the value of K

 α_3 – Measures the effect of X^2 on Y conditional on its own value

ε – Random error term

The effect size is measured using partial correlation to allow for meaningful comparison across different models. Various estimates of α_1 are converted into partial correlations using the formula $r = [t/\sqrt{(t^2 + dof)}]$. Where, t stands for t –statistics of the multiple regression coefficient, dof stands for the degrees of freedom of the respective t –statistic.

Modelling simple and meta-regression analysis

The following equation is used for simple meta-regression analysis for estimating the overall effect after correcting for publication bias¹:

$$r_{ij} = \beta_0 + \beta_1 SE_{ij}^2 + \epsilon_{ij}$$
 equation (3)

The following equation is used for multiple meta-regression analysis for estimating the overall effect after correcting for publication bias:

$$r_{ij} = \beta_0 + \beta_1 SE^2_{ij} + \beta_2 X_{ij} + \epsilon_{ij}$$
 equation (4)

The following equation is used for multiple meta-regression analysis with study and journal specific moderator variables.

$$r_{ij} = \beta_0 + \beta_1 SE_{ij}^2 + \beta_2 X_{ij} + \beta_3 Z_j + \varepsilon_{ij}$$
 equation (5)

i = Estimate

j = Journal

r = Partial correlation coefficient

SE = Standard error

 SE^2 = Squared standard error

 β_0 = Shows the effect of independent variable on dependent after correcting for publication bias β_1 = coefficient of SE²

¹ Publication bias is tested using Funnel Asymmetric Test (FAT) and Precision Effect Test (PET) (appendix 8 shows results of PET). FAT-PET is estimated using equation $t_i = \beta 1 + \beta 0$ (1/SE_i) + v_i (where FAT is H₀: $\beta 1 = 0$ and PET is H₀: $\beta 0 = 0$). These aspects are explored in a different study.

 β_2 = Coefficient of other factors such as real world

 β_3 = Coefficient of study and author related factors

 ε_i = Error term

X = Estimate specific covariates

Z = Journal specific covariates

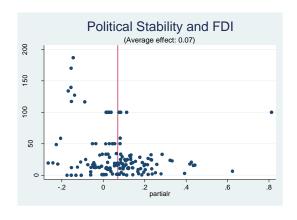
It is worth highlighting at this point that while some studies have defined r on a scale of 0-1 from low to high governance, others have used it as 0-1 high to low governance. In order to aggregate estimates, we have rescaled all estimates as 0-1 low to high governance². This was done by inversing and multiplying both coefficients and standard errors of estimates defined on the opposite scale (i.e. 0-1 high - low governance) by -1.

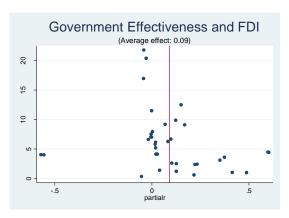
2.5 DISCUSSION OF RESULTS

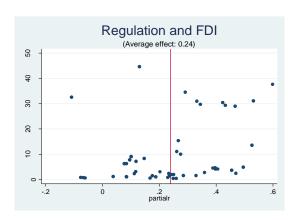
We present and analyse results of simple meta-regression analysis (SMRA) and multiple meta-regression analysis in this section. Before that, funnel plots and graphs of chronological order of estimates are presented. These graphs are used in order to offer a clear picture of the state of empirical knowledge in governance FDI studies.

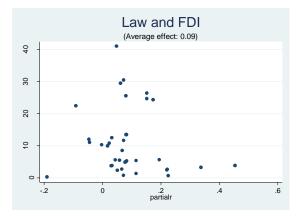
2.5.1 FUNNEL PLOTS

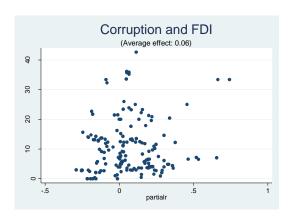
FIGURE 2.2: FUNNEL PLOTS FOR MEASURES OF GOVERNANCE AND FDI ESTIMATES

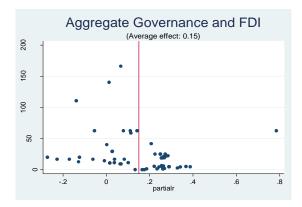












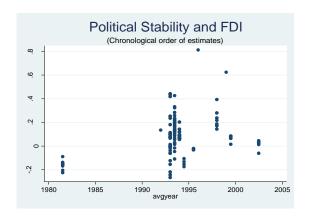
Estimates of measures of governance and inward FDI are plotted on the funnel plot shown in the graphs above. Funnel plot is used to trace the relationship between the effect size which is measured using partial correlation (shown on X axis) and its precision measured as inverse of standard error (shown on Y axis). While high precision estimates are generally few and are compactly distributed at the top of the funnel, low precision estimates are at the bottom of the funnel and are widely distributed. One possible reason for the wide dispersion of estimates (which is the case in most of the graphs) is publication bias² (Doucouliagos and Ulubasoglu, 2008). In each of the above graphs, the centre of the plot represents the estimated true underlying effect of respective measure on growth. In contrast to graphs of political stability, the other graphs show wide dispersion of governance-inward FDI values around the central value.

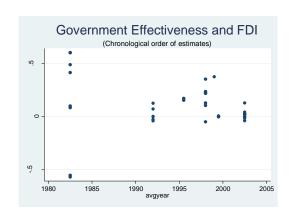
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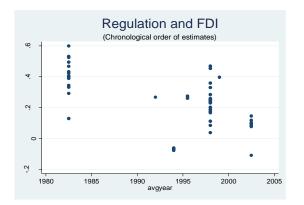
We have tested for publication bias using Funnel Asymmetric Test (FAT) and Precision Effect Test (PET) (appendix 2.9). Despite the presence of publication bias, PET results suggests that there is genuine effect of each measure of governance on FDI along with aggregate governance. However, they are not robust in case of corruption and aggregate governance.

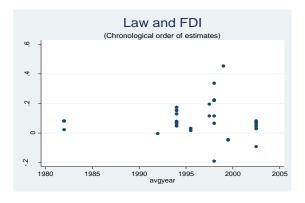
2.5.2 CHRONOLOGICAL ORDER OF ESTIMATES

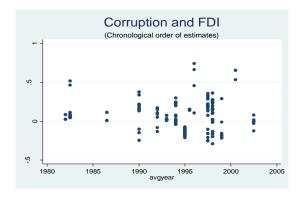
FIGURE 2.3: CHRONOLOGICAL ORDER OF MEASURES OF GOVERNANCE AND FDI ESTIMATES

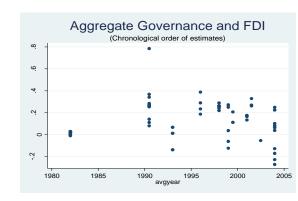












The graph above shows the chronological order of estimates of measures of governance on inward FDI. X-axis shows end year of sample period and Y axis shows partial correlation. Chronological ordering of graphs offers an insight into evolution of effect sizes and highlights the trends. With the exception of voice and accountability and political stability graphs, we see a downward trend in the estimates³. Downward trend has an important economic interpretation as it indicates that governance over a period of time has a declining effect on inward FDI as opposed to initial years of investment. As an alternative explanation, the downward trend can also be due to the fact that the econometric techniques have got better at controlling econometric problems and therefore smaller estimates are found.

³ We see the same downward trend in these graphs taking end year of sample period instead of average year.

2.5.3 SIMPLE META-REGRESSION ANALYSIS

TABLE 2.1: SIMPLE META-REGRESSION ANALYSIS RESULTS

	Political	Government	Regulation	Law	Corruption	Aggregate
	Stability	effectiveness				governance
	(Col. 1)	(Col. 2)	(Col. 3)	(Col. 4)	(Col. 5)	(Col. 6)
Un weighted	0.04	0.08	0.17	0.06	0.01	0.14
estimates, β0	(2.53)	(1.67)	(6.78)	(2.94)	(0.35)	(3.45)
(Row1)	$R^2=0.04$	$R^2=0.01$	$R^2=0.33$	$R^2=0.09$	$R^2=0.10$	$R^2=0.002$
Estimates	0.03	0.01	0.18	0.12	0.05	0.05
weighted by	(1.68)	(0.49)	(5.34)	(13.32)	(2.66)	(1.82)
precision, β0	$R^2=0.08$	$R^2 = 0.01$	$R^2=0.39$	$R^2 = 0.16$	$R^2=0.07$	$R^2=0.01$
(Row2)						
Number of	154	36	51	42	166	62
estimates						

Note: Values in parenthesis right below the estimate represent t-values. Each column represents models run with all estimates of that measure of governance. Despite of removing the effect of outliers, results for voice and accountability are infeasible and hence these are presented in appendix 2.11.

Table 2.1 shows unweighted and weighted simple meta-regression results of individual measures of governance on inward FDI. As can be noted, all unweighted estimates are with positive sign, indicating that a higher measure of each measure leads to more FDI. For instance, tighter regulations are associated with more FDI. In the case of corruption, results should be read inversely (due to rescaling) i.e. more corruption leads to less FDI. A positive effect of aggregate governance in the last column indicates that better governance is good for FDI.

Except for corruption, all the estimates are significant and unreliable as the R^2 value of each of these measures is very low (R^2 value ranges from 0.002 for aggregate governance to 0.33 for regulation). In addition to lower R^2 values, another shortcoming with this method of estimation is that the unweighted method treats all estimates equally with equal weight. Therefore studies with a large number of estimates can have an undue influence on the statistical assessment. Therefore these results can be biased and misleading. Hence, following Stanley and Doucouliagos (2012), we ran the above models using the weighted least squares method where

estimates are weighed by precision. we calculate precision as inverse of standard error as it is proven to be the optimal way of calculating weights from a statistical point of view.

When estimates are weighted by precision it is noted that, the size and significance of all measures has changed. A change in the size and significance of estimates indicates that undue influence by estimates is possibly removed. In terms of the effect, positive effect of regulation for instance indicates that more of regulation is good for FDI, whereas in the case of corruption, positive effect indicates that more corruption is still bad for FDI.

2.5.4 MULTIPLE META-REGRESSION ANALYSIS

It can be noted that in spite of weighting these estimates, R² values are still low indicating that the above models are weak in explaining the effect of governance on FDI. Hence similar to unweighted results these results can be misleading. One possible reason for a low R² value is due to the possible presence of heterogeneity. The expected value of governance FDI estimates will often depend on many other factors such as study, author and journal related. As these factors are unaccounted for, it is possible that both simple unweighted and weighted measures may capture the real effects of governance on FDI. Hence, we include the following moderator variables in order to validate simple meta-regression results. While some of the variables are included out of intuition (author specific variables) others are included as they are proved to have a significant effect by earlier meta studies (Doucouliagos and Ulubasoglu, 2008).

In terms of study related aspects, we have classified all studies into those that are published in journals and others that are not. Estimation techniques used have proven to have an important effect on reported estimates. we have classified studies into those using OLS, panel data, time series, instrumental and other techniques. In terms of the kind of data used, studies are grouped into panel, time series and cross sectional data. Sources of governance and FDI show different effects. In the case of FDI, data sources are grouped as World Bank, UNCTAD, IMF and others. Data sources on governance are classified into World Wide Governance indicators, ICRG, Polity, TI, PRS, Freedom House and others. To test the effect of real world factors, estimates are classified into different regions such as South Asia, East Asia, South East Asia and mixed countries. Dummies for China and South Korea are used to see if inclusion of these countries in the sample countries makes any difference to reported results.

Authors can differ in their values and beliefs which can influence the techniques they use and results they report. In order to capture this effect, we have classified authors based on the university the first author is from as American, European, South and East Asian, and others. We believe journals from different disciplines can differ in reported results due to the rhetorical

purposes they aim to fulfil and the different audience they target. Hence, we have classified journals into Economics and Finance, Business Management and Accounting, Policy and Development. The main results of governance on FDI are shown in table 2.2 and the effect of moderator variables are shown in table 2.3.

TABLE 2.2: MULTIPLE META-REGRESSION RESULTS⁴

Political			Governme	ent		Regulatio	n		Law			Corruptio	n		Aggregate	Govern	nance
Stability			Effectiver	ness													
Ptype1	0.07	0.07	Yearly	-0.78	-0.78	Yearly	-0.43	-0.43	Yearly	0.21	0.21	Yearly	-0.33	-0.33	Subject2	-1.45	-1.45
	(2.86)	(8.48)		(-2.2)	(-		(-	(-		(3)	(9.5)		(-	(-		(-	(-
					3.09)		9.49)	14.88)					7.39)	6.98)		7.29)	2.67)
Method	-0.05	-0.05	Lauthor	-1.31	-1.31	Method	0.06	0.06	Method	0.15	0.15	Data1	0.19	0.19	Dumsk1	0.94	0.94
1	(-	(-	2	(-	(-	2	(1.78)	(0.6)	1	(6.84)	(15.02		(11.78	(43.94		(7.39	(3.07
	1.78)	4.51)		2.05)	2.72))))))
Method	-0.12	-0.12	Subject1	0.60	0.6	Lauthor	-0.29	0.29	Method	0.68	0.68	Lauthor1	0.05	0.05	Dsource	-0.44	-0.44
2	(-	(-		(1.82	(2.6)	2	(-	(-	4	(7.86)	(35.84		(2.62)	(6.92)	2	(-	(-1.7)
	4.03)	7.26))			1.94)	5.99))					5.38)	
Lauthor1	-0.21	-0.21	Dsource	-0.63	-0.63	Subject	-0.28	-0.28	Subject1	0.40	0.40	Lauthor3	0.71	0.71	Dsource	-0.42	-0.42
	(-	(-	3	(-	(-	2	(-	(-		(7.84)	(29.34		(8.98)	(24.91	4	(-	(-
	7.46)	15.91)		1.85)	2.48)		7.96)	10.16)))		6.41)	3.52)
Subject3	-0.12	-0.12	(β0)	0.82	0.82	(β0)	0.63	0.63	Subject3	0.22	0.22	Dumchi1	-0.81	-0.81	Idsource	-0.43	-0.43
	(0.03)	(0.03)		(2.27	(3.03		(13.16	(15.18		(11.16	(47.6)		(-3.1)	(-	3	(-	(-
)))))				24.6)		4.01)	1.83)
Dsource	0.75	0.75	N	34	34	N	51	51	Dsource	-0.36	-0.36	Dumsk1	0.67	0.67	Idsource	-0.43	-0.43
1	(18.53	(5.46)							3	(-	(-		(11.24	(23.87	6	(-	(-1.8)
)									6.83)	30.76)))		3.49)	
Idsource	-0.42	-0.42	Adjuste	0.07	0.21	Adjuste	0.85	0.86	(β0)	-0.29	-0.29	Flow1	-0.12	-0.12	(β0)	0.51	0.51
2	(-	(-	d R2/R2			d R2/R2				(-	(-		(-	(-		(6.1)	(1.85
	6.48)	43.66)		<u> </u>						3.69)	12.4)		3.83)	11.43))
(β0)	0.26	0.26							N	42	42	Dsource	-0.18	-0.18	N	62	62
	(8.87)	(15.18										1	(-	(-			
)											3.38)	5.93)			
N	154	154							Adjuste	0.85	0.88	Idsource	0.21	0.21	Adjuste	0.63	0.67

⁴ Results of Precision Effect Test (PET) suggest that there is genuine effect beyond publication bias in case of each measures of governance along with aggregate governance. However, PET results are not robust in case of corruption and aggregate governance.

						d R2/R2		5	(3.22)	(6.76)	d R2/R2	
Adjuste	0.95	0.95						Idsource	0.75	0.75		
d R2/R2								7	(14.03	(23.86		
))		
								(β0)	0.28	0.28		
									(1.08)	(4.69)		
								N	166	166		
								Adjuste	0.88	0.89		
								d R2/R2				

Note: Values in parenthesis right below the estimate represent t-values. Each column represents modwith all estimates of each measure of governance. See appendix 2.6 for full descriptive statistics of moderator variables included in multiple meta-regression.

Results of weighted (row1) multiple regression analysis for each measure of governance is shown in table 2.2. As we have several estimates taken from the same study, it can lead to the issue of potential dependence among estimates which causes bias in the reported results. This potential bias is removed by running MMRA using cluster analysis where each study is treated as a cluster. Results of cluster analysis are used to validate the results obtained by the weighted method.

Before we analyse the results, it is worth noting the following five points. First of all it is important to comment on the good overall fit of the models. With an adjusted R² value ranging from 0. 07 for government effectiveness to 0.94 for political stability, these models have done a reasonable job explaining the heterogeneity in governance FDI literature (Stanley and Docouliagos, 2012). As compared to R² values of simple meta-regression results, the explanatory power of these models has increased after inclusion of moderator variables. Hence, these estimates are more reliable as compared to simple meta-regression estimates.

Secondly, we could not test for endogeneity due to the limited number of estimates (in most cases it was less than 10). Therefore, the effects reported can be due to the possible presence of causality. Thirdly, in terms of the statistical significance, all estimates are statistically significant. In the fourth instance, robustness of all these results is confirmed by cluster analysis. In the fifth instance, with more than 140 estimates and an adjusted R² value of more than 0.88, my results are highly reliable for political stability and corruption. In the case of other measures, my results are slightly less reliable as either adjusted R² value is implausibly high or they have fewer numbers of estimates. In the sixth instance, all these results are retrieved after removing the effect of outliers⁵.

Firstly, in contrast to the results reported by Globerman and Shapiro (2002a), Zheng (2011), Li and Resnick (2003), Jensen (2003), Jensen & McGillivray (2005), Busse (2004), Blanton & Blanton (2007), Choi (2008) and Doces (2010) my results show that voice and accountability have a negative effect on inward FDI (appendix 2.11). Despite removing the effect of outliers, results for this measure of governance are remained negative and infeasible. These are presented in the appendix. Further research is needed, before any firm conclusions are reached. Nevertheless, negative effect of voice and accountability indicates that low

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⁵ Precision more than 200.

levels of this measure in these countries is associated with high levels of FDI into them. These results reflect the tendency of MNC's to not to invest in countries where people are given voice to express their views and interests on government policies and processes.

Secondly, the overall effect of political stability on inward FDI is found to be positive and significant, which are in line with the findings reported by Anghel (2004), Baek and Qian (2011) and Busse et al., (2011). Therefore in general political stability does matter for foreign investors and it can be assumed that they like to invest in countries with high levels of stability. These results also suggest that foreign investors would not like to see frequent changes in the leadership and that they prefer long term government.

Thirdly, government effectiveness has positive and significant effect on FDI. A positive effect of government effectiveness indicates that higher levels of government effectiveness are correlated with higher levels of FDI. This contrasts the view that foreign investors are not happy with the cumbersome rules and tight procedures that effect the process and productiveness of investments (Khamfula, 2007; Gastanaga et al., 1998 and Arbatli, 2011). However, it is worth noting that with the lowest number of observations and a lower R² value, results for this measure are not strong enough. The lack of government effectiveness data may have caused biggest challenge in this area of research. Hence, further research is advised in this field of study before any strong conclusions can be made.

In the fourth instance, while on the one hand, effective and efficient policies along with incentives can attract foreign investments (Globerman and Shapiro, 2002a), on the other hand burdensome regulations can negate such investments (Jadhav, 2012). MMRA results on regulatory quality suggest that tighter regulations or regulations enforced in friendly manner are preferred by foreign investors as it has a positive and statistically significant impact on FDI. Therefore my results contrast the view that reducing the regulatory burden and making regulations easier for foreign investors would attract more FDI (Globerman and Shapiro, 2002b).

In the fifth instance, my results on rule of law contrast Arbatli (2011)'s view that a strong and impartial legal system is not preferred by foreign investors as the rule of law has a negative and statistically significant effect on inward FDI. As one would expect stronger laws to facilitate and protect investments, negative effect of law contradicts this view (Anghel, 2004; Gani, 2007; Jadhav, 2012; Fan et al., 2009). This shows a need for host country governments

to develop their legal systems further and incline them in favour of foreign investors. Similar to the government effectiveness measure, despite a higher R² value, we have limited number of observations for this measure and hence these results must be interpreted carefully.

In the sixth instance, a positive sign of corruption indicates that the higher the corruption, lower is inward FDI. This suggests that foreign investors view corruption as an extra cost of operation rather than viewing it as helping hand. My results are not in line with the literature arguing that corruption is good for foreign investors (Gastanaga et al., 1998; Globerman and Shapiro, 2002a; Teksoz, 2004; Voyer and Beamish, 2004; Khamfula, 2007; Mathur and Singh, 2013). Negative effect inform us that investors prefer not to invest in countries with high corruption or where there is a lack of anti-enforcement laws. Results on corruption confirm the view that corruption sands the wheels of investment rather than greasing them.

Lastly, with 65 observations, aggregate governance has a positive effect on inward FDI. From this result it can be inferred that the higher the governance quality, the more attractive it is for foreign investors. While improved governance is important for the general wellbeing of the individuals, my results suggest that it also helps in attracting foreign investments. My results negate the view that, foreign investors are discouraged by extra cost and delays that are often associated with high levels of governance rather than seeing it as an advantage (Goodspeed et al., 2011). Nevertheless, R² value is only 0.67 suggesting that the model does not fully explain the effect of governance on FDI.

Based on the higher values of R^2 and with observations of more than 140, my results are strong enough for voice and accountability, political stability and corruption. Hence, we can safely suggest that the countries in South and East Asia & Pacific regions aiming to attract FDI must focus on these three measures of governance. In the case of the other four measures of governance, we see a need for further research to reach any conclusions.

Before we analyse the effect of moderating variables, it is important to note that except for regulation models using probit model all other results are robust including clustering on the regression. Using the general to specific model, insignificant factors were eliminated (Stanley and Doucouliagos, 2012). Twenty eight variables reflecting the characteristics of study, real world, author and journal have shown to have an important effect on reported estimates. For each of the governance measures, only factors that have caused a noticeable impact on

reported results are presented in the table and only interesting, unexpected or surprising results are discussed below.

In the case of study related factors, whether a particular study has been published or not in an academic journal matters as it is statistically significant and have reported higher effects in the case of political stability as compared to estimates from unpublished studies. For instance, published studies on an average have reported a value of 0.33 as opposed to an overall effect of 0.26. Except in case of law, estimates using yearly data on FDI show a negative effect with reference to those using non-yearly data. This could presumably be because governance takes time to show its impact on FDI. There is also evidence to suggest that estimation techniques matter for governance FDI relationship. Models estimated using OLS and Probit techniques proved to be statistically significant compared to estimates estimated using other methods. Governance and FDI data sources also mattered.

Under real world factors, as expected, country composition of the sample did matter as there were few regional specific effects. For instance, models including China in their list of sample countries have reported an average effect of -0.81 which is lower than those which did not include China. Similarly, inclusion of South Korea mattered as reported results are higher (i.e. 0.67) in case of corruption as opposed to an overall effect of 0.28. Thus we infer that governance FDI association did alter with inclusion or exclusion of any particular region. These results are consistent with the notion that there can be many country specific factors that can have an important bearing on how governance works. It is interesting for future research to explore the reasons behind such differential impacts.

In the case of author related aspects, with the exception of political stability, law, corruption and aggregate governance, European authors seem to be consistently different in their results compared to other authors. For instance, reported results of government effectiveness and regulation are weak i.e. -1.31 and -0.29 respectively by European authors than other authors i.e. 0.82 and 0.63 respectively. Such an emphasis on these factors shows that European authors view these factors to be less important than others. Probably because they see government effectiveness and regulation as a part of life, they lay less stress on these factors. Similarly, American authors have emphasised less on political stability and more on corruption. It is an interesting issue for future research to see why European and American experience is different in these aspects compared to other authors.

We also find that discipline specific journals are statistically significant. For instance, compared to studies from Law, those from Economics and Finance discipline tend to place more emphasis on government effectiveness and law. Surprisingly, studies from Business Management and Accounting discipline under emphasise the importance of regulations and overall governance in attracting FDI. One possible reason for this could be that these disciplines view regulations to be less important in attracting FDI than in protecting such investments. Studies from Policy discipline view law to be more important for FDI. While these results suggest that the type of estimates reported differ across different types of journals, it is interesting to explore this matter further to understand if it is really discipline that's causing the difference or if it is due to some other discipline related factors. The inclusion of other variables which are not reported in the table did not make any difference to reported results.

2.6 CONCLSUIONS

South and East Asia & Pacific countries have during the past decade or so begun liberalising their economic policies in order to create favourable governance environment for FDI. However, whether or not such governance has helped these countries to attract FDI remains inconclusive. The aim of this study was to assess the role of measures of governance on inward FDI in order to reduce the inconclusiveness in this field. Using 771 estimates from 48 empirical studies published from 1980 - 2012, this study meta-synthesised the overall effect of each measure of governance on inward foreign direct investment. The study has also identified factors that have caused heterogeneity in the reported results.

The main message of this study is that each measure of governance has an important effect on FDI. In comparison to less regulated and high corrupt countries meta-regression results show that countries with high regulation and low levels of corruption are able to attract more FDI. Countries with stronger legal systems are positively related to inward FDI. As expected, aggregate governance is found to have a positive effect on inward FDI. It is important to note that with a large number of observations and high R² values, my results are strong in the case of voice and accountability, political stability and corruption.

This study has also shown that various study, real world, author and journal related aspects have caused significant difference to reported results in this field of study. An interesting finding that has emerged from this study is that American authors have been shown to be

consistently different in reporting effects of government effectiveness, political stability and aggregate governance. Journal discipline did make a difference to the reported results. As expected, regional effects such as inclusion of China and South Korea in the list of sample countries did matter. Hence the effect of all moderating variables must be taken on board, while interpreting these results.

Despite the useful findings, this study is subject to a number of caveats. The first and foremost caveat of this study is to do with the choice of sample countries and time period. This limitation would mean that the results are restricted to South and East Asia & Pacific countries and can only be generalised to those countries with similar governance and investment conditions. Secondly, in addition to showing direct effects, it is possible that governance affects FDI indirectly through its interaction with macro-economic factors among others. This study has only assessed the direct effects of measures of governance on inward FDI mainly due to the limited and diverse nature of both interaction⁶ and non-linear terms⁷. This has been a common problem with several other meta-analysis studies and thus highlights the need for more extensive research in this field with interaction and non-linear terms.

Thirdly, the quality of results in this study is as good as the quality of studies included for meta-regression analysis. In the fourth instance, this study offers a general picture on the role of measures of governance on FDI. This limitation means that it does not look into the specific effects of sub measures of each measure of governance on FDI. Last but not least, it is important to note that governance can be measured in terms of the number of assassinations, riots and fines charged for violations of law and not just as a scale. However, we have only included studies which have defined governance as scale, and have excluded those that have defined it in terms of number. Whether or not the results of this study significantly differ if a wider definition of governance is considered is questionable.

The following directions for future research are suggested. Firstly, one important caveat of the empirical studies on measures of governance and inward FDI is that most of the studies have used country as a unit of analysis. Presumably, the effect of governance in attracting inward FDI can differ regionally and is also based on the motive of FDI within one nation. Whether results on the effect of governance on inward FDI would significantly differ if it

 $^{^6}$ There were about 15 different types of interaction terms ranging from a minimum of 1 to a maximum of 11 observations.

⁷ There were only 2 different non-linear terms with less than 12 observations.

were possible to carry out research at regional level or by sector is uncertain (Globerman and Shapiro, 2002b).

Secondly, most of the proxies used by existing studies in measuring economic governance in a country are subjective and perception based. The estimations reported by these studies are driven by subjective indices. In addition to this, the unanticipated negative effect of governance raises questions on whether these measures actually measure what has to be measured. This leaves an opportunity for future research to use more objective measures of governance by considering factual information on governance such as those provided by using the Business Database provided by World Bank (2006). Another interesting direction for future research would be analysing the effects of economic governance on inward FDI separately by taking up country level studies. This would be informative for the dynamic effects of measures of governance on inward FDI and would also control for country level heterogeneity.

Based on the results of this study it can be safely suggested that without designing and implementing governance in an appropriate manner, attracting high levels of FDI might not be possible. My results have important policy implications. Efforts towards raising the quality of institutions by designing and implementing policies that further political stability, regulation and overall governance is advised. Policy makers should design and enforce policies that lets government be more accountable for its actions along with appropriate legal systems. All possible formal and informal mechanisms that aid in enhancing the quality of accountability of government and those that give more voice to its citizens might be helpful.

As government effectiveness has been shown to have a negative effect on FDI, from an FDI point of view, continuing tighter rules and thereby speeding up the process and productiveness of investments is advised. It is important that the quality of policy formulation and enforcement are in favour of foreign investors along with staying committed to stated policies. Policy makers can focus on improving the regulatory quality to increase their openness to foreign capital. Overall, South and East Asia pacific countries striving to attract FDI should continue to design and implement governance quality in a way that encourages and facilitates investments from foreign investors rather than constraining such investments.

To conclude, based on 771 estimates from 48 studies, this study has reduced the inconclusiveness on the role of governance on FDI. All measures of governance i.e. political

stability, regulation, law, corruption and government effectiveness along with aggregate governance have an important effect on FDI. In contrast to less regulated and high corrupted countries, countries with tighter regulation and low levels of corruption are able to attract more FDI. On the one hand, countries with high voice and accountability and law are negatively related to FDI. Aggregate governance is found to have a positive effect on FDI.

In terms of heterogeneity, studies which are published, those using a specific form of FDI, yearly data, studies published by American, European and Asian authors, studies including China and South Korea in their sample countries, models estimated using techniques such as OLS, Panel data, instrumental variable and time series, studies using data on FDI from sources such as IMF, OECD, UNCTAD and other, those using data on governance from BERI, Freedom House, ICRG, Polity and other, those published in disciplines such as Economics & Finance, Accounting, Policy and Development studies have caused a significant difference in reported results.

Appendix

1. Search key words used in governance and FDI meta-regression analysis

Governance - Worldwide governance indicators OR Governance OR Voice and Accountability OR Political Stability and Absence of Violence OR Government Effectiveness OR Regulatory Quality OR Rule of Law OR Control of Corruption

Inward Foreign direct investment - FDI or Foreign direct investment OR offshore investment OR cross boarder investment OR investment abroad OR overseas investment OR foreign assets OR Greenfield investment OR foreign investment OR foreign ventures OR foreign reinvestment OR foreign assets OR non-local investments OR international investment OR outside investment OR non-native investment OR remote investment OR non-domestic investment OR non-resident investment OR distant investment OR investment OR investment OR investment in other countries

South and East Asia & Pacific countries - Emerging economies OR East Asian economies OR South east Asian economies OR East Asia OR South Asia OR South east Asia OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR American Samoa OR Cambodia OR China OR Fiji OR Indonesia OR Kiribati OR Korea, Dem. Rep. OR Lao PDR OR Malaysia OR Marshall Islands OR Micronesia, Fed. Sts OR Mongolia OR Myanmar OR Palau OR Papua New Guinea OR Philippines OR Samoa OR Solomon Islands OR Thailand OR Timor-Leste OR Tuvalu OR Tonga OR Vanuatu OR Vietnam OR Asean OR Developing economies OR Developing countries

2. PIOS framework

Population – The study should focus on South and East Asia Pacific economies or equivalent as specified in the search criteria.

Independent variable - The study should be examining the impact of measures economic governance in terms of a scale or its equivalent as specified in the search criteria.

Outcome variable - The study should be examining inward foreign direct investment or as defined in the search criteria.

Study design - Study design can be either theoretical or empirical. A study is considered to be theoretical if it is based on some theoretical model drawing verbal or mathematical conclusions analysing impact of economic governance on economic growth. A study is considered to be

empirical if it is based on regression model and draws an estimation model to estimate economic governance on economic growth.

3. Number of studies satisfying PIOS criteria

Criteria	Number of studies
	satisfying the
	criteria
Population (South and East Asia & Pacific countries)	94
Independent variable (Measures of governance)	62
Outcome variable (Inward foreign direct investments)	68
Study design – Empirical	94
Decision Select if all 4 criteria match - PIOS	
Select for next stage	40
Deselect studies	91

4. Descriptive statistics of moderator variables

Moderator	Definition	Mean	Standard
variable			deviation
Ptype1	=1 if the estimate is from an article published in	0.544	0.50
	journal; = 0 otherwise		
Ptype2	=1 if the estimate is from unpublished study; = 0	0.456	0.50
	otherwise		
Specific fdi	=1 if the model uses FDI data on single country;	0.020	0.14
	= 0 otherwise		
Nonspecificfdi	=1 if the model uses FDI data on more than one	0.980	0.14
	country FDI; = 0 otherwise		
Yearly	=1 if the model uses yearly data on FDI; = 0	0.526	0.50
	otherwise		
Nonyearly	=1 if the model uses non-yearly data on FDI; = 0	0.474	0.50
	otherwise		
Data1	=1 if the model uses panel data; = 0 otherwise	0.579	0.49
Data2	=1 if the model uses cross sectional data; = 0	0.421	0.49

	otherwise		
Fdi1	=1 if the model uses levels of FDI; = 0 otherwise	0.119	0.32
Fdi2	=1 if the model uses relative figures of FDI; = 0	0.092	0.29
	otherwise		
Fdi3	=1 if the model uses natural logarithm of FDI; =	0.788	0.41
	0 otherwise		
Country1	=1 if the estimate belongs to South Asia; = 0	0.007	0.08
	otherwise		
Country2	=1 if the estimate belongs to Mixed countries; =	0.993	0.08
	0 otherwise		
Method1	=1 if the model is estimated using OLS	0.417	0.49
	technique; = 0 otherwise		
Method2	=1 if the model is estimated using panel data	0.377	0.48
	technique; = 0 otherwise		
Method3	=1 if the model is estimated using instrumental	0.132	0.34
	variable technique; = 0 otherwise		
Method4	=1 if the model is estimated using time series	0.073	0.26
	technique; = 0 otherwise		
Method5	=1 if the model is estimated using other	0.001	0.34
	technique; = 0 otherwise		
Lauthor1	=1 if the first author of the study is American; =	0.462	0.50
	0 otherwise		
Lauthor2	=1 if the first author of the study is European; = 0	0.307	0.46
	otherwise		
Lauthor3	=1 if the first author of the study is South & East	0.047	0.21
	Asian; = 0 otherwise		
Lauthor4	=1 if the first author of the study is from other	0.184	0.39
	region; = 0 otherwise		
Subject1	=1 if the estimate is taken form a study that	0.551	0.50
	belongs to Economics and Finance discipline; = 0		
	otherwise		
Subject2	=1 if the estimate is taken form a study that	0.161	0.37
	belongs to Business Management and		

	Accounting discipline; = 0 otherwise		
Subject3	=1 if the estimate is taken form a study that	0.208	0.41
	belongs to Policy discipline; = 0 otherwise		
Subject4	=1 if the estimate is taken form a study that	0.069	0.25
	belongs to Development discipline; = 0 otherwise		
Subject5	=1 if the estimate is taken form a study that	0.011	0.11
	belongs to Law discipline; = 0 otherwise		
Dumchi1	=1 if the model includes China in the sample	0.975	0.16
	countries; = 0 otherwise		
Dumchi2	=1 if the model excludes China from the sample	0.025	0.16
	countries; = 0 otherwise		
Dumsk1	=1 if the model includes South Korea in the	0.849	0.36
	sample countries; = 0 otherwise		
Dumsk2	=1 if the model excludes South Korea from the	0.151	0.36
	sample countries; = 0 otherwise		
Form1	=1 if the model uses merger and acquisition form	0.089	0.28
	of FDI; = 0 otherwise		
Form2	=1 if the model uses aggregate FDI; = 0	0.911	0.28
	otherwise		
Flow1	=1 if the model uses stock of FDI; = 0 otherwise	0.048	0.21
Flow2	=1 if the model uses flow of FDI; = 0 otherwise	0.952	0.21
Indi1	=1 if the model includes governance as main	0.964	0.19
	independent variable; = 0 otherwise		
Indi2	=1 if the model includes governance as control	0.036	0.19
	variable; = 0 otherwise		
Dosurce1	=1 if model uses data on FDI from IMF database;	0.037	0.19
	= 0 otherwise		
Dsource2	=1 if model uses data on FDI from OECD	0.054	0.23
	database; = 0 otherwise		
Dsource3	=1 if model uses data on FDI from other	0.221	0.41
	databases; = 0 otherwise		
Dsource4	=1 if model uses data on FDI from UNCTAD	0.189	0.39
	database; = 0 otherwise		

Dsource5	=1 if model uses data on FDI from World Bank	0.499	0.50
	database; = 0 otherwise		
Idsource1	=1 if the data on governance measure in the	0.021	0.14
	model is taken from BERI database; = 0		
	otherwise		
Idsource2	=1 if the data on governance measure in the	0.037	0.19
	model is taken from Freedom House database; =		
	0 otherwise		
Idsource3	=1 if the data on governance measure in the	0.242	0.43
	model is taken from ICRG database; = 0		
	otherwise		
Idsource4	=1 if the data on governance measure in the	0.193	0.39
	model is taken from other sources; = 0 otherwise		
Idsource5	=1 if the data on governance measure in the	0.029	0.17
	model is taken from PRS database; = 0 otherwise		
Idsource6	=1 if the data on governance measure in the	0.120	0.33
	model is taken from Polity database; = 0		
	otherwise		
Idsource7	=1 if the data on governance measure in the	0.042	0.20
	model is taken from Transparency International		
	database; = 0 otherwise		
Idsource8	=1 if the data on governance measure in the	0.315	0.46
	model is taken from World Wide Governance		
	Indicators from World Bank database; = 0		
	otherwise		

5. Summaries of empirical studies included in meta-regression analysis

year	size	period	variable and	variable and	gy	
			source	source		
Gastanaga	49 less	1970	Aggregate	Various	Pooled	Bureaucrac
et al.,	develope	_	inward FDI in	institutional	cross	y – negative
(1998)	d	1995	millions of US	variables –	section	and
	countries		dollars (taken as	bureaucracy	and time	significant
			FDI to GDP	and corruption	series data	
			ratio)	Source:		Corruption
			Source:	Various		– positive
			International	sources		and
			Monetary			significant
			Fund's (IMF)			
			Balance of			
			Payments			
			Statistics			
			Yearbook			
Globerman	115	1995	US FDI	World	Cross	Law –
and Shapiro	developi	_	Source: Bureau	governance	sectional	positive and
(2002a)	ng and	1997	of Economic	indicators	data	insignificant
	develope		Analysis	Source: World		
	d			Bank		Voice and
	countries		(both aggregate	(Kaufman et.		accountabili
			FDI flows and	Al. (1999))		ty – positive
			industry specific			and
			(2 high			significant
			technology			
			industries))			Political
						instability –
						positive and
						insignificant
						Government
						effectivenes

					s – positive
					and
					significant
					Regulation
					– positive
					and
					significant
					Corruption
					– positive
					and
					significant
Globerman 114	1995	Net inward FDI	World	Cross	Governance
and Shapiro develo	pi –	(=inward FDI –	governance	sectional	has positive
(2002b) ng and	1997	FDI outflows)	indicators		and
develo	pe	averaged 1995 –	Source: World		significant
d		97.	Bank		
countri	ies	Source: The			
		world			
		investment			
		report,			
		UNCTAD			
		(1998) Annex B			
Hsiao and 23	1976	Total inward	Governance	Panel data	Absence of
Shen (2003) develo	pi –	FDI flows as	institutions		corruption –
ng	1997	percentage of			positive and
countri	ies	gross domestic			insignificant
		product (GDP)			
		(in percentage			
		values).			
		Source: World			

			Development			
			Indicator CD			
			Rom (2000)			
Anghel	80	1996	Net FDI as a	Governance	Cross	Political
(2004)	countries	_	percentage of	institutions (5	sectional	stability –
		2000	average GDP	indicators are	data	positive and
			Source: World	used		significant
			Bank	government		
				effectiveness,		Government
				regulatory		effectivenes
				quality, rule of		s – positive
				law and		and
				control of		significant
				corruption)		
						Rule of law
				Source: World		– positive
				Bank		and
				governance		significant
				indicators		
				(Kaufman et.		Control of
				al. 2004)		corruption –
						positive and
						significant
Globerman	154	1995	Merger and	Governance	Panel data	Governance
and Shapiro	countries	_	Acquisition	indicators.		– positive
(2004)		2001	inflows.			and
				Source: World		significant
			Source:	Bank,		
			UNCTAD	Kaufmann et		
				al. (2003).		
Gani (2007)	17	4	FDI as a share	Governance	Panel data	Rule of law
	countries	period	of GDP	indicators.		– positive
	from	s –	Source: World			and

	Asia and	1996,	Bank (2004)	Source: World		significant
	Latin	1998,		Bank,		
	America	2002,		Kaufmann et		Control of
		2004		al. (2003).		corruption –
						positive and
						significant
Hur et al.,	172	1995	Merger and	Governance	Panel data	Governance
(2007)	countries	_	Acquisition	indicators.		– positive
		2002	flows			and
			Source:	Source: World		significant
			UNCTAD	Bank,		
				Kaufmann et		
				al. (2003).		
Adeoye	33	1997	Inwards FDI as	Governance	Panel data	Governance
(2009)	emerging	_	% of GDP	indicators.		– positive
	countries	2002	Source: World			and
			Bank	Source: World		significant
				Bank,		
				Kaufmann et		
				al. (2003).		
Wernick et	64	1996	Inward FDI	Overall	Panel data	Governance
al., (2009)	emerging	_	measured in	governance	OLS	– Positive
	economi	2006	millions of US	Source: World	technique	and
	es		dollars	Bank,		significant
			Source: World	Kaufmann et		
			Bank	al. (2003).		
Ali et	69	1981 -	FDI net inflows	Institutional	Panel data	Governance
al.,(2010)	countries	2005	expressed as a	quality		- Positive
			percentage of	comprising of		and
	Sectoral		GDP.	investment		significant
	analysis			profile index		
			Source: World	and law &		
			Bank, World	order		

			Development	Source: ICRG		
			Indicators.			
Muhammad	7 Asian	1996	Inward FDI	Institutional	Panel data	Governance
et al. (2011)	economi	_	Source: Central	quality	- Fixed	- Positive
	es	2007	banks of each	Source: World	effect and	and
			country	Bank,	Random	significant
				Kaufmann et	effect	effect
				al. (2003).	model	
Jadhav	5 BRICS	2000 -	Inward FDI in	Voice and	Panel data	Regulatory
(2012)	nations	2009	billion dollars	accountability		quality –
	(Brazil,		Source: World	Government		positive and
	Russia,		Bank	effectiveness		insignificant
	India,			Regulatory		Rule of law
	China			quality		– positive
	and			Rule of law		and
	South			Corruption		significant
	Africa)			Political		Democracy
				stability		– negative
						and
						significant
						Political
						stability –
						negative
						and
						insignificant
						Control of
						corruption –
						positive and
						insignificant
Luca and	103	2001 -	Private capital	World	Cross	Mixed
Spatafora	countries	2007	flows (which	governance	country	results both
(2012)			includes debt	indicators	and panel	in effect and
			and equity) as a	Source: World	data	significance

GDP Source: Global development finance, World Bank (2011)				share of nominal	Bank	analysis –	
development finance, World Bank (2011) Habib and I11 1994 - Source: Corruption Panel data Corruption - OLS Negative and significant countries (2001) Wei (2001) 93 1994 - Source: OECD Corruption Panel data significant company Wei (2001) 93 1996 Source: OECD Corruption Source: World development indicators as a percentage of GDP (GDP measured in current international dollars) Source: World development indicators Voyer and S9 2000 - Japanese FDI Corruption Cross Sectional - Positive and Source: The Source: The Source: The Source: The Source: Corruption Cross Sectional - Positive and Source: The Source: The Source: Corruption - Cross Sectional - Positive and Source: The Source: The Source: Corruption - Cross Sectional - Positive and Source: The Source: The Source: Corruption - Positive and Source: The Source: The Source: Corruption - Positive and Source: The Source: The Source: Corruption - Positive and Source: The Source: The Source: Positive and Source: The Source: Corruption - Positive and Source: The Source: The Source: Corruption - Positive and Source: The Source: The Source: Positive and Source: The				GDP		OLS, IV,	
Habib and Zurawicki (2001) Wei (2001) Wei (2001) Teksoz (2004) Teksoz (2006) Teksoz (2007)				Source: Global		GMM	
Habib and I11 1994 - Source: Corruption				development		techniques	
Habib and Zurawicki (2001) Wei (2001) Wei (2001) Panel data Corruption - OLS Negative and significant company Wei (2001) Wei (2001) Panel data - OLS Negative and significant company Panel data Corruption - random development international dollars) Source: World development international dollars) Source: Global ollars) Source: World development indicators Source: Global ollars) Source: World development current international dollars) Source: World development indicators Source: Global ollars) Source: World development indicators Source: The sectional - Positive and Positi				finance, World			
Zurawicki (2001) 2001 20				Bank (2011)			
Monetary Fund risk assessment company	Habib and	111	1994 -	Source:	Corruption	Panel data	Corruption -
Wei (2001) 93 1994 - Countries 1996 Source: OECD Corruption Source: World development indicators as a percentage of GDP (GDP measured in current international dollars) Source: World development indicators Voyer and 59 2000 Japanese FDI Corruption Source: The sectional – Positive and significant significa	Zurawicki	countries	1998	International	Source: Private	- OLS	Negative
Wei (2001) 93 1994 - Countries 1996 Source: OECD Corruption Source: World development indicators as a percentage of GDP (GDP measured in current international dollars) Voyer and 59 2000 Japanese FDI Corruption Source: World development indicators model significant Corruption Panel data Corruption - OLS, Positive and significant significant significant significant current current international dollars) Voyer and 59 2000 Japanese FDI Corruption Cross Corruption - Positive and Source: The sectional - Positive and Source: The Source: The Source - Positive and Source and Source: The Source - Positive and Source and Source: The Source - Positive and Positive and Source and Positive and Source: The Source - Positive and Source and Positive and Source and Positive and Source: The Source - Positive and Positive and Positive and Source and Positive and Source and Source: The Source - Positive and Positive and Source an	(2001)			Monetary Fund	risk		and
Wei (2001) 93 1994 - Countries 1996 Source: OECD Corruption Source: World development indicators as a percentage of GDP (GDP measured in current international dollars) Voyer and 59 2000 Japanese FDI Corruption Source: World development indicators model significant Corruption Panel data Corruption - OLS, Positive and significant significant significant significant current current international dollars) Voyer and 59 2000 Japanese FDI Corruption Cross Corruption - Positive and Source: The sectional - Positive and Source: The Source: The Source - Positive and Source and Source: The Source - Positive and Source and Source: The Source - Positive and Positive and Source and Positive and Source: The Source - Positive and Source and Positive and Source and Positive and Source: The Source - Positive and Positive and Positive and Source and Positive and Source and Source: The Source - Positive and Positive and Source an				,	assessment		significant
countries 1996					company		
countries 1996 Source: World - random Negative and significant Teksoz 102 1995 - Net inward FDI Corruption Panel data Corruption - OLS, Positive and significant (2004) Countries 2000 as a percentage of GDP (GDP competitivenes measured in current international dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Positive and Source: The Sectional - Positive and Positive and Source: The Source: Clobal Corruption Cross Corruption - Positive and Source: World Corruption Cross Corruption - Positive and Source: The Sectional - Positive and Source: World Corruption Cross Corruption - Positive and Source: The Sectional - Positive and Source: World Corruption Cross Corruption - Positive and Source: World Corruption Cross Corruption - Positive and Source: The Sectional - Positive and Source: World Corruption Cross Corruption Source: The Sectional - Positive and Sourc	Wei (2001)	93	1994 -	Source: OECD	Corruption	Panel data	Corruption -
Teksoz 102 1995 - Net inward FDI Corruption Panel data Corruption - OLS, Positive and significant of GDP (GDP competitivenes seports reports Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Positive and significant Source: Global competitivenes sectional - OLS, Positive and significant seports significant seports sectional - Positive and Source: World Corruption Cross Corruption - Positive and Source: The sectional - Positive and Significant seports significant seports sectional - Positive and Source: The sectional - Positive and Source: The sectional - Positive and Source: The Source: The sectional - Positive and Source and Source: The Source: The Source: The Source and Significant segments significant segments significant segments as a percentage of GDP (GDP competitivenes segments) as a percentage of GDP (GDP comp	, ,	countries	1996		_	– random	
Teksoz 102 1995 - Net inward FDI Corruption Panel data Corruption - OLS, Positive and significant of GDP (GDP competitivenes s reports significant international dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Positive and significant significan					development	effects	and
(2004) countries 2000 as a percentage of GDP (GDP competitivenes s reports Countries					_	model	significant
Countries Coun	Teksoz	102	1995 -	Net inward FDI	Corruption	Panel data	Corruption -
measured in current international dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and	(2004)	countries	2000	as a percentage	_	- OLS,	_
current international dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				of GDP (GDP	competitivenes	2SLS	significant
international dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				measured in	s reports		
dollars) Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional – Positive and				current			
Source: World development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				international			
development indicators Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				dollars)			
Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				Source: World			
Voyer and 59 2000 - Japanese FDI Corruption Cross Corruption - Beamish countries 2001 per capita Source: The sectional - Positive and				development			
Beamish countries 2001 per capita Source: The sectional – Positive and							
	Voyer and	59	2000 -	Japanese FDI	Corruption	Cross	Corruption -
	Beamish	countries	2001	per capita	Source: The	sectional –	Positive and
(2004) Source: Toyo Transparency linear significant	(2004)			Source: Toyo	Transparency	linear	significant
Keizai International regression in case of				Keizai	International	regression	in case of
Corruption emerging					Corruption		emerging
Index (CPI) – economies.					Index (CPI) –		economies.
2002 Positive and					2002		Positive and
insignificant							insignificant

						in case of
						industrialise
						d
Straub and	106	1995	FDI flows as a	Corruption	Panel data	Corruption -
Edinburgh	countries	_	share of total	Source:		Negative
(2005)		1999	private capital	Corruption		and
			flows	Index from		significant
			Source: IMF's	International		
			International	Country Risk		
			Financial	Guide		
			Statistics			
			Database			
Dahlstrom	99	1996	Total annual	Corruption	Panel data	Corruption -
and Johnson	countries	_	flows of FDI	Source:	– Random	Negative
(2007)		2002	millions of US\$	Transparency	effects	and
			Source: World	International	model	significant
			development	Corruption		
			indicator (2004)	Perception		
				Index (2004)		
Khamfula	18	1994	FDI/Nominal	Corruption	Panel data	Corruption -
(2007)	countries	_	GDP	Source: Centre	- Fixed	Positive and
		2004	Source: IMF	for corruption	effects	significant
			International	research		effect
			Finance			
			Statistics			
Sadig	117	1984	FDI per capita	Corruption	Panel data	Corruption -
(2009)	countries	_	Source:	Source:	- OLS	Negative
		2004	UNCTAD	International		and
				country risk		significant
				guide (ICRG)		
Woo and	8 Non-	1984	Ratio of a	Corruption	Panel data	Corruption
Heo (2009)	OECD	_	nations share in	level		– negative
	countries	2004	world inward	Source:		and

			FDI to its share	International		significant
			in global GDP	country risk		
			Source:	guide (ICRG)		Democracy
			UNCTAD			– negative
						and
						insignificant
						(Non
						OECD
						Asian
						countries)
						Democracy
						– positive
						and
						significant
						in case of
Mathur and	29	1980 -	Net inward FDI	Corruption	Panel data	Corruption -
Singh	countries	2000	Source: IMF	perception	- Random	Positive and
(2013)	(emergin				effects	significant
	g or				GLS	
	developi					
	ng)					
Singh and	31	1970 -	RFDI = FDI	Political risk	Pooled	Political
Jun (1995)	countries	1993	flows in	index.	time series	risk -
			constant dollars		and cross	Positive
			relative to real	Source:	sectional	effect but
			GDP.	Business	analysis.	results are
				Environment		not robust
			Source: World	Risk		
			Debt tables,	Intelligence,		
			World Bank.	S.A. (BERI)		
Busse and	83	1984 -	FDI net inflows	12 category	Panel data	Government
Hefeker	developi	2003	per capita in	political risk		stability,
(2005)	ng		current US	Index and		absence of

	countries		dollars (FDI).	institutions		internal
						conflict and
			Source:	Source:		tensions,
			UNCTAD	International		democratic
			(2005).	Country Risk		rights, law
				Guide (ICRG)		and order
						have
						significant
						effect
Baek and	22	1984 -	Stock of FDI in	12 category	Panel data	Political
Qian (2011)	industrial	2008	the host country.	political risk	- Basic	stability -
	ised and			Index and	gravity	Positive and
	94			institutions	model	significant
	developi					effect in
	ng			Source:		case of all
	countries			International		and
				Country Risk		developing
				Guide (ICRG)		countries.
Zheng	135	1980 -	FDI net inflows	Democracy	Time	Democracy
(2011)	developi	2008	as a percentage		series	- Positive
	ng		of GDP.	Source:	cross	and
	countries			Henisz's	sectional	significant
			Source: World	(2000a)	data	
			Development	political		
			Indicators	constraints		
			(WDI) database.	index polcon.		
Li and	53	1982 -	FDI net inflows	Democracy –	Pooled	Democracy
Resnick	countries	1995	measured in	Polity IV	time-series	has both
(2003)			billions of	Property rights	cross	positive and
			current US	protection	section	negative
			dollars.	index.	data	effect
			Source: World	Source:		

			Bank's World	Stephen Knack		
			Development	and Philip		
			Indicators.	Keefer for the		
				IRIS centre at		
				the University		
				of Maryland.		
Ahlquist	80	1985 -	Net inward FDI.	Institutional	Unbalance	Governance
(2006)	developi	2002		quality	d panel	– positive
	ng		Source: World		time series	and
	countries		Bank			significant
Goodspeed	53	1984	Aggregate stock	Policy	Panel data	Overall
et al.,(2010)	countries	_	of FDI	variables =		governance
	for tax	2002		Infrastructure		= negative
	rates.	for tax	Source:	quality		and
		rates.	UNCTAD.			significant
				Source: World		
			FDI stock of	Bank.		Corruption
	47	1995	destination			= negative
	countries	_	country	Good		and
	for the	2002		governance =		insignificant
	corruptio	for	Source: OECD	corruption		and
	n index.	corrup		perception		significant
		tion		index and		
	37	index.		government		
	countries			efficiency.		
	for					
	infrastru	1996		Corruption		
	cture	_		perception		
	index.	2002		index		
		for				
		infrast		Source:		
		ructur		Transparency		
		e		International.		

		idex.				
				Government		
				efficiency		
				cificiency		
				Source: IMD		
				Competitivene		
				ss Yearbook.		
				35 Tearbook.		
A .1 41:	1.0	1000	EDI	T 11	D 1 -1-4-	T 1
Arbatli	46	1990 -	FDI as a	Law and order;	Panel data	Law and
(2011)	countries	2009	percentage of	Bureaucracy		order –
			FDI.	quality		negative
						and
			Source: IFS,	ICRG		insignificant
			World			
			Investment			Bureaucrac
			Report			y – negative
			Database.			and
						insignificant
Davis	109	1980 -	Inward FDI in	Democracy	Cross	Democracy
(2011)	states	2005	millions of US		sectional	- Negative
			dollars.	Source: Polity	time series	and
				IV		insignificant
			Source: World			
			Development			
			Indicators			
			(WDI, World			
			Bank, 2007).			
Gordon et	124	1996 -	Foreign direct	Democracy,	Panel data	All
al., (2012)	countries	2009	investment	Political		governance
			inflow data in	stability,		variables
			current US	corruption,		show mixed
			dollars.	regulation,		effects
				government		311000
				50 tommont		

			Source: World	effectiveness		
			development	and law		
			indicator (WDI)			
			database	Source: World		
			published by	Bank,		
			world bank.	Kaufmann et		
				al. (2003).		
Fan et al.,	61	1961 -	Per capita FDI	Rule of Law.	Panel data.	Law -
(2009)	countries	2003	in constant 2000			Positive and
			US\$ winsorized	Source:		significant
			at 5%.	International		
				Country Risk		
			Source: World	Guide.		
			Bank, World			
			Development			
			Indicators			
			database.			
Busse et al.,	82	1984 -	Absolute	Political risk	Panel data	Political
(2011)	countries	2004	bilateral inward			stability -
			FDI.	Source:		Positive and
				International		significant
			Source:	Country Risk		
			UNCTAD.	Guide.		
Harms and	62	1989 -	Average level of	Democracy	Panel data	Democracy
Ursprung	developi	1997	per capita FDI.			- Positive
(2002)	ng and			Source:		but
	emerging		Source: World	Freedom		statistically
	market		Bank.	House (2000)		mixed
	countries					effect
Jensen	79	1990	Cross sectional -	Democracy –	Cross	Democracy
(2003)	countries	_	Average net	Polity III data	sectional	has positive
	for cross	Cross	inward FDI as a	Jagger & Gurr	data for	and
	sectional	sectio	percentage of	1996;	1999;	significant

	data.	nal.	GDP.			effect;
				Corruption,	Time	others –
	114	1970	Time-series	Rule of law,	series	insignificant
	countries	_	cross-sectional –	Corruption and	cross-	
	for time-	1997	Annual inward		sectional	
	series	for	FDI as a	Bureaucracy –	analysis	
	cross-	time-	percentage of	Easterly Data		
	sectional	series	GDP.	Set, Easterly		
	data.	cross-		1999		
		sectio	World Bank's			
		nal	World			
		data.	Development			
			Indicators 1999.			
Jensen &	115	1975 -	Inward FDI as a	Democracy	Cross-	Democracy
McGillivray	countries	1995	percentage of		sectional	- Positive
(2005)			GDP.	Source:	time-series	and
				Marshall and	data	significant
			Source: World	Jaggers (2000).		
			Bank's World			
			Development			
			Indicators, 1999.			
Busse	69	1972 -	Foreign direct	Democracy	Panel data	Democracy
(2004)	developi	2001	investment per			- Positive
	ng and		capita, net	Source:		and
	emerging		inflows in	Freedom		significant
	market		current US	House (2002)		effect from
	countries		dollars.	data for		1990
				political rights		onwards
			Source:	and civil		
			UNCTAD,	liberties.		
			2003.			
Blanton &	Non-	1980 -	Net inward FDI	Democracy	Time-	Democracy

Blanton	OECD	2003	as a percentage		series	- Positive
(2007)	countries		of total GDP.	Source:	cross-	and
				Developed by	sectional	significant
			Source: World	Stohl, Gibney,	data	
			Development	Poe and Co-		
			Indicators,	researchers.		
			World Bank,			
			2005.			
Choi (2008)	Developi	20	Foreign direct	Democracy	Pooled	Democracy
	ng	years	investment as a		panel data	- Positive
	countries		ratio of GDP in	Source: Polity		and
			dollar amounts.	IV		significant
Guerin and	14	1992 -	Bilateral gross	Democracy	Panel data	Democracy
Manzocchi	OECD	2004	inward FDI			- Negative
(2009)	source		from source	Source: The		and
	countries		country to host	Freedom		significant
	and 24		country in	House Political		
	emerging		constant 2000	Rights index.		
	host		US dollars.			
	countries					
			Source: OECD			
			International			
			Direct			
			Investment			
			Database (2006			
			release).			
Doces	55	1990 -	Inward flows of	Democracy	Panel data	Democracy
(2010)	countries	1999	FDI measured in			- Positive
			millions of	Source: Polity		and
			dollars.	IV		significant
			Source: World			
			Bank.			

6. Overview of study

Field	Search	Types of	Effect size	Number of	Countries	Aim of the
	engines	studies		studies		study
	used	included		(estimates)		
Measures	Google,	English	Partial	48 (771*)	South	Parameter
of	Web of	language	correlation		and East	estimate and
governance	Knowledge	studies –			Asia &	heterogeneity
and FDI		published			Pacific	
		and			countries	
		unpublished			as	
					defined	
					by world	
					bank +	
					South	
					Korea	

^{*}Total number of estimates (combining all measures of governance)

7. Precision Effect Test (PET)

7.1 Simple Meta Regression – Precision Effect Test (PET)

	Voice	Politica	Governm	Regulat	Law	Corru	Aggreg
	And	1	ent	ion		ption	ate
	Account	Stabilit	Effective				Govern
	ability	y	ness				ance
PET	-0.03	0.02	0.05	0.08	0.04	-0.05	0.08
(Unwei	(-1.70)	(0.35)	(0.74)	(2.44)	(1.60)	(-	(1.44)
ghted)	$R^2 = 0.25$	$R^2 = 0.0$	$R^2 = 0.03$	$R^2 = 0.4$	$R^2 = 0$.	1.73)	$R^2 = 0.0$
		5		6	09	$R^2 = 0$.	2
						12	
PET	-0.02	0.10	0.00	0.09	0.13	-0.04	0.04
(Weigh	(3.65)	(3.50)	(0.01)	(2.43)	(11.33	(-	(0.91)
ted)	$R^2 = 0.08$	$R^2 = 0.1$	$R^2 = 0.01$	$R^2 = 0.5$)	1.00)	$R^2 = 0.0$
		3		5	$R^2 = 0$.	$R^2 = 0$.	2
					19	10	
N	149	154	36	51	42	166	62

7.2 Multiple Meta Regression – Precision Effect Test (PET)

	Voice	Politica	Govern	Regulat	Law	Corrupt	Aggreg
	And	1	ment	ion		ion	ate
	Accoun	Stabilit	Effectiv				Govern
	tability	y	eness				ance
PET	0.12	-0.96	0.17	0.66	0.27	0.10	0.07
(Weigh	(6.03)	(-6.10)	(2.37)	(8.05)	(4.53)	(1.71)	(2.19)
ted)	Adj.R ²						
	=0.87	=0.90	=0.14	=0.80	=0.76	=0.71	=0.42
PET	0.12	-0.96	0.17	0.66	0.27	0.10	0.07
(Cluster	(2.43)	(-4.17)	(7.95)	(6.72)	(12.40)	(1.35)	(1.51)]
ed)	$R^2 = 0.8$	$R^2 = 0.9$	$R^2 = 0.1$	$R^2 = 0.8$	$R^2 = 0.7$	$R^2 = 0.7$	$R^2 = 0.4$
	8	1	9	1	9	3	5
N	149	154	36	51	42	166	62

Notes

- 1. Similar to corruption political stability was considered in two ways political stability and political instability. For aggregating these studies, political instability was transformed into political stability by inversing and multiplying both coefficient and t value with -1.
- 2. Low governance should be interpreted as less democracy, low political stability, less regulation, low levels of government effectiveness, less of rule of law, high corruption and low overall governance.
- 3. We have tested for publication bias using Funnel Asymmetric Test (FAT) and Precision Effect Test (PET). While FAT suggests the presence of publication bias and PET confirms the genuine effect of these measures on FDI beyond publication bias. We have explored these aspects in a different study.
- 4. We see the same downward trend in these graphs taking end year of sample period instead of average year.
- 5. There were about 15 different types of interaction terms ranging from a minimum of 1 to a maximum of 11 observations.
- 6. There were only 2 different non-linear terms with less than 12 observations.

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