Institutional Quality of Developing Asian Economies: A key factor for leading FDI destinations?

Authors:
Bikash Ranjan Mishra, Lopamudra D. Satpathy

ABSTRACT

In the wake of the phenomenal surge in international business in the last decades or more, both the developed and developing economies around the world are in massive competition to attract more and more FDI flows. While the developed countries have marched ahead in the race, the developing countries, especially those of Asian economies, have followed them at a rapid pace. While most of the previous studies have analysed the role of institutional quality in the promotion of FDI flows in developing countries, very few studies have taken an integrated approach of examining the comprehensive impact of institutional quality, globalization pattern and domestic financial development on FDI flows. In this context, the paper contributes to the literature in two important ways. Firstly, two composite indices of institutional quality and domestic financial development for the Asian countries are constructed in comparison to earlier studies that resort to a single variable for indicating the institutional quality and domestic financial development. Secondly, the impact of these variables on FDI flows through their interaction with geographical region is investigated. The study uses panel data covering the time period of 1996 to 2012 by selecting twenty Asian developing countries by emphasizing the quality of institutions from the geographical regions of eastern, south-eastern, southern and western Asia. Control of corruption, better rule of law, regulatory quality, effectiveness of the government, political stability and voice and accountability are used as indicators of institutional quality. Besides these, the study takes into account the domestic credits in the hands of public, private sectors and in stock markets as domestic financial indicators. First in the specification of model, a factor analysis is performed to reduce the vast determinants, which are highly correlated with each other, to a manageable size. Afterwards, a reduced version of the model is estimated with the extracted factors in the form of index as independent variables along with a set of control variables. It is found that the institutional quality index and index of globalization exert a significant effect on FDI inflows of the host countries; in contrast, the domestic financial index does not seem to play much worthy role. Finally, some robustness tests are performed to make sure that the results are not sensitive to temporal and spatial unobserved heterogeneity. On the basis of the above study, one general inference can be drawn from the policy prescription point of view that the government of these developing countries should strengthen their domestic institution, both financial and non-financial. In addition to these, welfare policies should also target for rapid globalization. If the financial and non-financial institutions of these developing countries become sound and grow more globalized in the economic, social and political domain, then they can appeal to more amounts of FDI inflows that will subsequently result in advancement of these economies.

Keywords: Asian developing economies, FDI, institutional quality, panel data.

Role of Institutional Quality as a key determinant of FDI flows in Developing Asian Economies

By

Dr. Bikash Ranjan Mishra

Assistant Professor

National Institute of Technology Rourkela

Odisha, INDIA

Introduction

- The global integration in recent times has given rise to a keen competition among countries to attract more FDI flows.

- The developed countries have traditionally taken the edge over the developing countries in the matter of FDI inflows and outflows.

- Of late, the developing countries of Asia have participated in the FDI competition and are proving themselves.

- While studies on the role of institutional quality in the determination of FDI flows are found plentily, but the previous studies on the determinants of FDI flows across the world have given utmost importance to the economic factors.

Introduction Contd…

- The institutional quality, pattern of globalization and development of domestic financial market have traditionally been assigned a backseat in the empirical investigation of FDI flows in the region.

- In this context, the huge chunk of inward FDI flows received by the Asian economies calls for further investigation of its relationship with institutional quality, globalization pattern and domestic financial development.

- In this paper, we address the issues of quality of institutions, degree of globalization and indicators of domestic financial development in promoting FDI inflows in the Asian region. We find that institutional quality and pattern of globalization play an important role in influencing the amount of FDI inflows into the Asian countries.

Research Gap and Objective of the Study

✓ Although there are number of studies on the role of institutional quality in the determination of FDI flows, studies with the integrated approach of institutional quality, globalization pattern and domestic financial development are lacking.

✓ Vey few studies in the context of developing economies have constructed composite index for institutional quality and domestic financial development. Many studies have resorted to a single variable approach for showing the impact of institutional quality and domestic financial development on the FDI flows.

✓ The objective of the study is to examine the impact of institutional quality, globalization pattern and domestic financial development on twenty Asian countries over a period of 1996 to 2012.

Data and Research Methodology

- The present study has taken data from different sources.

- Data of FDI has been taken from The World Bank World Development Indicators.

- Voice, Political Stability, Effectiveness of the Government, Regulatory quality, Rule of law, control of corruption data have been taken from The World Bank World Development Indicators.

- Institutional quality index and domestic financial development index have been constructed by the author.

- Globalization index has been taken from KOF Index of Globalization.

- Real GDP, Trade openness and Population data have been taken from The World Bank World Development Indicators.

Sampled countries			
East-Asia	South Asia	South-East Asia	West Asia
China	Bangladesh	Indonesia	Jordan
Korea Republic	India	Malaysia	Kuwait
Mongolia	Nepal	Philippines	Lebanon
	Pakistan	Singapore	Oman
	Sri Lanka	Thailand	Saudi Arabia
			Turkey
			United Arab Emirates

Summary Statistics						
Variables	Obs	Mean	Std.Dev.	Min	Max	Kinds of variables
LNIFDI	270	7.622	2.158	0.011	11.728	Dependent Variable
VOICE	280	-0.422	0.589	-1.862	0.730	Explanatory Variable
POLSTAB	280	-0.471	0.983	-2.812	1.341	Explanatory Variable
GOVEFF	280	0.124	0.693	-0.986	2.430	Explanatory Variable
REGQUAL	280	0.082	0.624	-1.095	2.247	Explanatory Variable
RULOL	280	0.044	0.636	-1.025	1.772	Explanatory Variable
CONTOC	280	-0.099	0.771	-1.488	2.417	Explanatory Variable
INST	280	0.252	0.828	-1.718	3.002	Explanatory Variable
FIN	280	0.054	1.323	-1.723	4.973	Explanatory Variable
GLOB	279	59.036	13.115	26.746	88.823	Explanatory Variable
LNRGDP	280	20.868	1.620	17.694	24.648	Control Variable
TRDOPN	275	97.993	77.395	21.552	439.657	Control Variable
POPULATION	280	17.209	1.906	14.309	21.024	Control Variable
INFL	244	7.000	9.993	-1.125	84.641	Control Variable
PCGGDP	280	3.090	4.483	-16.534	15.525	Control Variable

Data and Research Methodology

✓ The first explanatory variable used in the study is institutional quality that has six subparts. (1) Voice and accountability (2) Political Stability and absence of violence (3) Government effectiveness (4) Regulatory quality (5) Rule of law and (6) Control of Corruption

✓ Domestic financial development is another explanatory variable that is again made up of banking sector development and aggregate finance development. Globalization index is another explanatory variable.

✓ The control variables are the real GDP, trade openness, population, rate of inflation and per capita growth of GDP.

Description of Variables

- ✓ FDI - net flows of foreign direct investment divided by the GDP deflator

- ✓ Institutional quality index- Constructed by Principal Components Analysis

- ✓ Domestic financial development index- Constructed by Principal Components Analysis

- ✓ Real GDP – GDP divided by GDP deflator

- ✓ Trade Openness- Computed as the sum of nominal export and import divided by the nominal GDP

- ✓ Inflation – Measured by the consumer price index

- ✓ Other variables are taken directly from different sources

Methodology

- A **panel data fixed effect model** has been carried out in order to show the role of institutional quality and other factors in the promotion of FDI flows.

- Twenty Asian countries have been selected

- The equation for panel data model is as follows.

- $Y_{it} = \alpha_i + \beta_1 x_{it} + \beta_2 \gamma_{it} + \beta_3 \delta_{it} + \beta_4 \Phi_{it} + \lambda_i x_{it} + \varepsilon_{it}$

Results

Determinants of Host-country specific FDI Inflows						
Dependent Variable Inward FDI flows						
Independent Variables	(1)		(2)		(3)	
INST	0.462***	(0.137)	0.472***	0.14		
RDM2*INST (South Asia)					0.482**	0.239
RDM3*INST (South-East Asia)					0.579***	0.214
RDM4*INST (West Asia)					0.909***	0.308
FIN	0.117	(0.087)	0.107	0.084	0.094	0.085
GLOB	0.115***	(0.024)	0.198***	0.034	0.178***	0.032
LNRGDP	0.125	(0.276)	-0.199	0.293	-0.279	0.29
TRDOPN	0.004**	(0.002)	0.004***	0.001	0.004***	0.001
POPULATION	5.446***	(0.914)	9.098***	1.299	8.82***	1.289
INFL	-0.0005	(0.009)	-0.008	0.009	-0.005	0.009
PCGGDP	0.023	(0.018)	0.03	0.02	0.029	0.02
CONSTANT	-96.24***	(13.68)	-155.464***	22.913	-148.002***	22.769
R^2						
Within	0.5237		0.6164		0.6334	
Between	0.1897		0.1803		0.1774	
Overall	0.1219		0.1122		0.1116	
Observations	230		230		230	
Hausman	33.14	p-value: (0.0001)	114.01	p-value: (0.0001)	44.67	p-value: (0.0044)
F	27.76	p-value: (0.0000)	14.46	p-value: (0.0000)		
Year FE	NO		YES		YES	
Testparm i.year			F(13,189) = 3.51 Prob>F = 0.0001		F(13,187) = 3.33 Prob>F = 0.0001	

Discussion

- LNIFDI is real FDI inflows in millions USD to country i.
- The regression (1) is done for 20 developing Asian economies without considering Time Fixed Effect.
- The regression (2) is done for the same economies with consideration of Time Fixed Effect but without geographical group.
- The regression (3) is done for Time Fixed Effect and with geographical group
- RDM2 is second regional dummy; score 1 for country belongs to South-Asian countries and 0 otherwise.
- RDM3 is third regional dummy; score 1 for country belongs to South-East Asian countries and 0 otherwise.
- RDM4 is fourth regional dummy; score 1 for country belongs to West-Asian countries and 0 otherwise.
- Here RDM1 represents the countries belonging to East-Asian countries.
- The interaction effects of Institutional Quality and the regional dummies are captured through RDM2*INST, RDM3*INST and RDM4*INST respectively.
- The heterescedasticity and autocorrelation adjusted cluster robust standard errors are represented in parenthesis. ***, ** and *, means statistical significance at 1%, 5% and 10% respectively.

Summary

- This paper investigates the relationship between foreign direct investment, institutional quality, domestic financial indicators and the degree of globalization in developing economies.

- The study uses panel data (1996-2012) by selecting twenty Asian developing countries by emphasizing the quality of institutions from the geographical regions of eastern, south-eastern, southern and western Asia.

- Control of corruption, better rule of law, regulatory quality, effectiveness of the government, political stability and voice and accountability are used as indicators of institutional quality.

- Besides these, the study takes into account the domestic credits in the hands of public, private sectors and in stock markets as domestic financial indicators.

- First in the specification of model, a factor analysis is performed to reduce the vast determinants, which are highly correlated with each other, to a manageable size.

- Afterwards, a reduced version of the model is estimated with the extracted factors in the form of index as independent variables along with a set of control variables.

- We find that institutional quality index and index of globalization exert a significant effect on FDI inflows of the host countries; in contrast, the domestic financial index does not seem to play much worthy role.

- Finally, we perform some robustness tests to make sure the results are not sensitive to temporal and spatial unobserved heterogeneity.

Conclusion

- This study examines the effects of institutional quality, domestic financial health and the degree of globalization on inflows foreign direct investment of the recipient developing countries.

- Out of total twenty Asian developing countries, three are from East-Asia, five each in South and South-East Asia and seven are from West-Asia.

- Annual data on different parameters are compiled from different data sources for 14 years, ranging from 1996 to 2012.

- The empirical results utilising time fixed effect estimation techniques suggest that indices like institutional quality, domestic finance and globalization positively contribute for high inflows of FDI.

- Although the index of domestic finance lacks statistical significance, one general inference can be drawn from the policy prescription point of view that the government of these developing countries should strengthen their domestic institution, both financial and non-financial.

- In addition to these, welfare policies should also target for rapid globalization.

- If the financial and non-financial institutions of these developing countries become sound and grow more globalized in the economic, social and political domain, then they can appeal to more amounts of FDI inflows. This ultimately will result in advancement of these economies.

Limitation

- The relatively small sample of developing economies and limited duration of the analysis in this study limit the number of variables that can be included in the model.

- It is critical to develop models that combine more diversified economic and socio-cultural variables.

- Additionally, by extending the number of countries and suitably classifying them would result in cross validation of the results and further illuminate it.

- A benchmark panel data analysis can be suitably upgraded for dynamic version or panel-cointegration test for examining long-run associations between variables.

- The future research in this field should be able to surmount these limitations of this study.