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Sub-national governance institutions and foreign direct investment: Evidence from Vietnam

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Abstract

Vietnam has implemented policies and regulations aiming to open the economy and attract foreign investment. In this process, provincial authorities have played an active role in interpreting and implementing those policies for supporting foreign investors locally. Discrepancies between national policy and local implementation leads to the uneven inflows of foreign direct investment into provinces. Using panel data adapted from Provincial Competitiveness Index (PCI) and foreign direct investment data from 63 provinces during the period 2006-2015 adapted from the General Statistics Office (GSO), this paper examines the relationship between governance institutions and FDI, and then effects of governance institutions on FDI into the province. The paper finds that provincial governance institutions are a robust predictor of FDI; the impacts of governance institutions on FDI is stronger at provinces with smaller size economy. The empirical findings would benefit policymakers in improving quality of provincial governance institutions in order to attract more FDI at provincial level.

Keywords: *Causal relationship, Governance institutions, Foreign direct investment, and Vietnam*

Introduction

Foreign Direct Investment corporations are considered a vehicle for progress of transforming capital, management skills, jobs, along with transferring new technology and boosting exports from the developed countries to the less developed ones. Increasing FDI inflows in both quantity and quality has received considerable attention from the developing nations.

Simultaneously, there has been a growing interest in exploring the determinants of FDI in developing countries. Generally, there have been two ways to approach, one is economic factors such as market potential, cost, or profit target, and the other refers to institution factors such as corruption, property rights, institution and policy stability. Indeed, good institutions are supposed to exert their positive influence on development

through the promotion of investment. Institutions contribute to locational advantages. Institutions influence strategies pursued by both multinational firms (Peng, 2001; (Meyer & Nguyen, 2005) and local firms (Lyles et al., 2004) to a high degree. Scholars have extensively studied how institution variables influence the location of FDI in terms of host country selection (Bénassy-Quéré, Coupet, & Mayer, 2007; Chidlow, Salciuviene, & Young, 2009; Meyer & Nguyen, 2005). Bénassy-Quéré et al. (2007) offered several reasons, explaining the link between the institution's quality and the FDI flows. Firstly, good governance infrastructures may attract foreign investors. Secondly, poor institutions can bring additional costs to FDI, for instance, corruption. Finally, FDI can be affected by government inefficiency, policy uncertainty, weak enforcement of legal systems.

Just as institutions affect the volume of FDI inflows on the national level, sub-national institutions affect FDI inflows at the regional level. However, the impact of sub-national institutions on FDI at the regional level has received little attention (Meyer & Nguyen, 2005). Although national governments have power to release policies and regulations, implementation of these policies often takes place locally. Vietnam is a transition economy and the reforms decentralized policy responsibilities, which gives provincial authorities rights to grant investment licenses for FDI projects as well as to support foreign investors in the preparation of application. As a result, due to the gap between official policies and provincial interpretation as well as implementation, the inflows of FDI into provinces might be uneven and changeable following the local institution. For example, FDI inflows concentrated in some cities and provinces, known to be investor-friendly environment, such as Ho Chi Minh at \$3.42 billion, Hai Phong at \$2.98 billion, Ha Noi, Binh Duong, Dong Nai at \$2.79 billion, \$2.36 billion, \$2.23 billion respectively (FIA, 2017).

Using panel data adapted from Provincial Competitiveness Index (PCI) and foreign direct investment data from 63 provinces during the period 2006-2015 adapted from the General Statistics Office (GSO), this paper examines how local institution affects FDI inflow at the provincial level. This paper contributes to the existing literature in two ways. First, the paper establishes a provincial governance, based on Vietnam Provincial Competitiveness Index (PCI), which consists of five variables: Transparency, Informal Charges, Proactivity, Legal Institutions and Time costs. Then, the paper offers a framework to measure the impact of sub-national governance institutions indicators on FDI inflows into provinces.

The paper is organized as follows. The following section reviews theoretical perspective on institutions, national and sub-national institutions, multi-level governance to explain how institutions impact FDI and its role in attracting the inflows of FDI. This section provides basis for developing a model measuring effects of local institutions on FDI inflows. Section 3 presents methodology how to build empirical

models and data used to estimate impacts of local institutions on FDI inflows into provinces in Vietnam. Section 4 presents estimated results and discusses empirical results further, and section 5 concludes and gives recommendations of the paper.

Literature Review

Institutions are defined as the humanly devised constraints that structure human interactions such as political, economic or social interactions (Li & Abiad, 1990). North (1990) also classified institutions into two groups, formal and informal institutions. Formal institutions are constraints documented such as laws, property rights whereas informal constraints through norms of behaviors, conventions and imposed codes of conduct and enforcement characteristics.

Institutional quality exerts a significant role in determining FDI inflows with various controlling variables such as democracy, corruption, political instability, social tension and property rights security (Ali, Fiess, & MacDonald, 2010). For foreign direct investors, institutions impact transformation and production costs (Henisz & Williamson, 1999). Also, if property rights are not well protected, Henisz (2000) argues that foreign investors face risks in both direct and indirect hazard. First, the host country's government may nationalize them and behave in an opportunistic way. Second, local competitors who have better access to political process may favour them at the cost of foreign investors.

Governance is the third level of the institutional system (Williamson, 2000). Institutional systems consist of embeddedness, including customs, tradition, norms, religions; institutional environment related to laws, regulations, property rights; and governance that goes beyond the rules of the game (property). Governance institutions are the structure and functioning of the legal and social institutions that support economic activities and economic transactions by protecting property rights, enforcing contracts and taking collective actions to provide physical and organizational infrastructure (Dixit, 2009). Accordingly, the role of juridical system is to guarantee that counter party cheating is prevented, and people have to fulfill their promised role in transactions.

Empirically, there have been a growing number of cross-country studies as well as within-country studies on the relationship between institutions variables and FDI. For example, Bénassy-Quéré et al. (2007) studies institutional determinants of foreign direct investment in developing countries and found that institutions affect independently the inflow of FDI. Wei (2000) finds that uncertainty in regard to corruption has negative effects on location choices for FDI. Besides, Busse and Hefeker (2007) demonstrate that government stability, the absence of internal conflict and ethnic tensions, basic democratic rights and laws are highly significant determinants of FDI through a sample of 83 developing countries during the period 1984-2003. Also, Daude and Stein (2007) stress that inward FDI is significantly influenced by the quality of institutions. However, in

other studies, the link between institutions and FDI is weak. For example, in the research of Asiedu (2002) conducted in 71 developing countries, it is found that political risk and expropriation have no significant impact on FDI. Institutional aspects have a positive but not robust impact on FDI (Nonnemberg & de Mendonça, 2004).

However, one of the weaknesses of cross-country is that the data is a large sample of countries and a relatively long-time span, which may have enormous diversity of ethnicity, culture and language, creating the possibility of biases estimates. Besides, the within-country studies which use micro-data and take advantage of large-differences in the quality of institutions across regions in a country tend to provide more concrete evidence on the institutions-FDI nexus. Kang and Jiang (2012) find that institutional factors demonstrate a high level of significance, complexity and diversity in determining FDI location choice of Chinese multinationals in Southeast Asia. In Malaysia, several institutional variables are found to play prominent roles in influencing the inward of FDI, namely government stability, bureaucracy and corruption (Karim, Zaidi, Ismail, & Karim, 2012).

In Vietnam context, studies provide a comprehensive analysis of the sub-national determinants of FDI, including economic growth, market size, human capital, labour costs and the quality of infrastructure (Lan, 2006; Mai, 2002). Mayer & Nguyen (2005) find that the differences in the provincial institutions in Vietnam have a significant impact on the location choice and entry mode by foreign investors. Although the literature shows that there is a positive correlation between local governance and FDI, Nguyen and Nguyen (2007) find no relationship between the quality of local economic governance and FDI. Vo (2011) argues that productivity, income and investment did not increase in line with improvements in the business environment in the Mekong delta. Thus, it is struggled to identify clear causality between sub-national governance and FDI. This paper aims to examine the effects of provincial governance institutions on the inflows of FDI in Vietnam.

Methodology

To measure the sub-national governance institutions, we re-calculate a sub-index using PCI data. PCI (Provincial Competitiveness Index) is a composite index of provincial economic governance which has been calculated each year since 2005 by VCCI. It is based on a range of questions about firm's perceptions of local economic governance as well as concrete measures of their experience of local governance. Annually, there are more ten thousand of private firms across 63 provinces, which were randomly chosen to participate in the surveys. A particular strength of PCI reports is that it focuses on aspects of local governance which are under the control of the provincial administration. It, thus, excludes factors such as the quality of infrastructure such as roads, ports which leads to bias the index in favor of larger cities or provinces (McCulloch, Malesky, & Duc,

2013). Responses to the questions are combined into a set of 10 indices reflecting provincial performance on: Entry costs, Land access and tenure, Transparency, Time Costs, Informal Charges, Policy Bias, Proactivity, Business Support Services, Labor Training and Legal Institutions.

However, there are five aspects of PCI which relate to sub-national governance institutions. Firstly, Transparency index could be a proxy for governance institutions, as poor transparency might induce free-riding and collusions that are detrimental to the business community (Bach, 2017). The index measures private firms' accessibility to public information related to legal documents, budget information and planning that constitute the business environment constraining firm operation. The higher the value of the index, the more transparency is achieved at the provincial level. Secondly, **Informal charges** measure of how much firms pay in informal charges or an obstacle those extra fees pose for their business operations. The higher the value of the index, the higher costs and troubles firms need to pay when processing procedures for businesses. Thirdly, **time costs and regulatory compliance** measures of how much time firms waste on bureaucratic compliance and how often and how long firms must shut their operations down for inspections by local regulatory agencies. The lower the time costs, the better the local governance is achieved. Fourthly, **proactive of provincial leadership** is a measure of the creativity and cleverness of provinces in interpreting and implementing central policy, designing their own initiatives for private sector development and working in unclear national regulatory frameworks to assist and interpret in favor of local private firms. The last sub-index is **legal institutions**. It is a measure of the private sector's confidence in provincial legal institutions, whether firms regard provincial legal institutions as an effective vehicle for dispute resolution or an avenue for lodging appeals against corrupt official behaviors.

Besides the index of provincial governance, a set of controlling variables as potential determinants of FDI inflows is chosen. Employing the Ali et al. (2010) framework, this paper adds two more variables including market size and trade openness. Thus, the model to examine the role of provincial institutions in determining FDI inwards takes the form as follows:

$$\begin{aligned} LFDI_{it} = & \beta_1 LGDP_{it} + \beta_2 Transparency_{it} + \beta_3 Informal\ charges_{it} \\ & + \beta_4 Proactive_{it} + \beta_5 Time\ costs_{it} + \beta_6 Legal_{it} + \beta_7 Labor_{it} \\ & + \beta_8 Open_{it} + \beta_9 Poverty_{it} + \beta_{10} Tele_{it} + \alpha_{it} \end{aligned}$$

LGDP: The log of GDP is used to capture the influence of market size of the province. Market size is expected to have a positive impact on FDI as a large market means a greater demand for goods and services, which attract market seeking FDI.

Open: The ratio of merchandised trade to GDP, which is used to capture the influence of trade openness on FDI.

Tele: the number of telephone lines per 1000 inhabitants, is used to proxy the quality of

physical infrastructure in the province (Ali et al., 2010). Tele is expected to be positively correlated with FDI as a good infrastructure.

Poverty: Poverty rate, is the number of households which have incomes below the poverty line of the total provincial households. It is expected to have positive correlation with FDI.

Labor: Labor indicates the number of people in working ages from 15 to 64. It is expected to have positive correlation with FDI.

Empirical results

There are two sources of data used in this study. The first is the statistics of 63 provinces in Vietnam, including GDP, capital, CPI, imports and exports over the period between 2005 and 2015. The data are provided by the General Statistical Office of Vietnam. The second source of data comes from Provincial Competitiveness Index conducted by the VCCI. The PCI reflected private firms' feedback on the local business environment, the quality of economic governance, and the administrative reforms at the provincial level that were conducive to private economic sector development (Bach, 2017).

Data for this study are panel data on 63 provinces for the period 2005-2015 with total of 630 observations. We define and calculate the variables in our estimations, which are summarized in Table 1.

Table 1. Descriptive statistics of variables

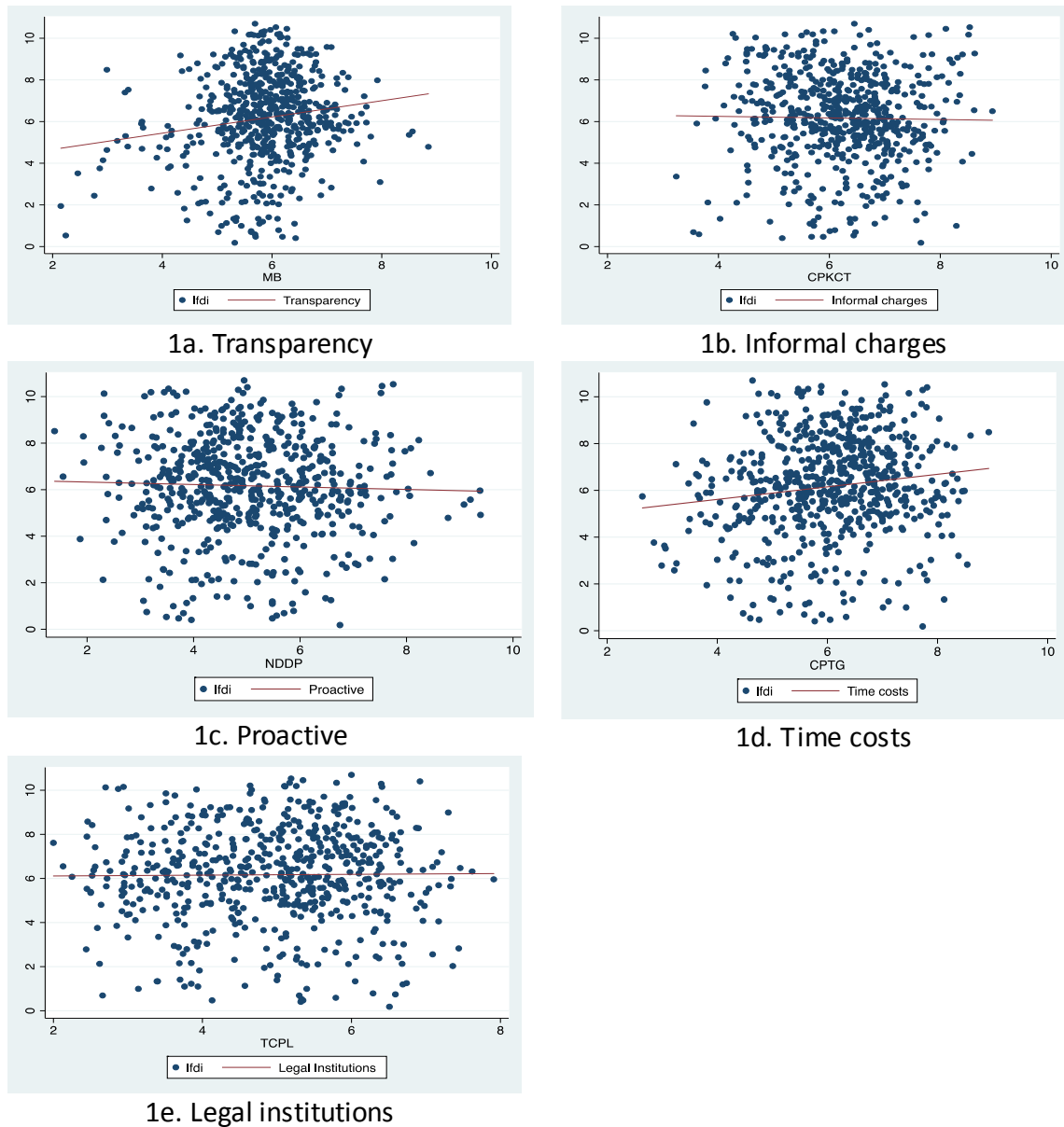
	Mean	Std.Dev.	Min	Max
LFDI	5.9228	2.4224	0	10.69941
LGDP	9.9263	0.9184	7.504006	13.2407
Transparency	5.8367	0.8735	2.15	8.85
Informal charges	6.2052	1.0053	2.81	8.94
Proactive	5.0123	1.3298	1.39	9.39
Time costs	6.0455	1.1345	2.64	8.93
Legal	4.9380	1.1811	2	7.91
Labor	6.5057	0.5628	5.154447	8.355003
Open	2.0326	3.4567	0.0169832	24.61531
Poverty	16.0058	11.6151	0.01	58.2
Tele	255.1984	415.0431	14.2	4231.2

The paper also tests for multicollinearity among independent variables and did not find any high collinearities. The test results are presented in the Appendix 1.

This paper demonstrates the correlations of 5 subnational governance institutions sub-indices, including transparency (1a), Informal charges (1b), Proactive (1c), Time costs (1d) and Legal institutions (1e) on the provincial inflows of FDI. Accordingly, Transparency and Time costs positively associates with FDI whereas Proactive has a

negative correlation to FDI; and it does not seem to have correlation between Informal charges, Legal institutions and FDI inflows (see more in Figure 1).

Figure 1. The effect of subnational governance institutions on FDI



Next, the paper tests where fixed effect model or random effect model is more consistent. Using the Hausman test, the fixed effect model is suggested to be consistent. Table 2 presents the estimated results from different Fixed effect models. Model 0 is a benchmark model, while models 1 to 5 just add interaction of variables measuring subnational governance and GDP in order to examine effects of governance institution on FDI in different economy size of the provinces.



The empirical results indicate transparency, time costs and legal institutions have statistically significant impact on FDI. Transparency positively impacts FDI inflow to province, which means province that has higher transparency and/or better legal institutions attracted more FDI. Time costs has a negative impact on FDI, which means province that has higher time costs had disadvantages in attracting investments from international investors.



Table 2. Effects of subnational governance institutions and foreign direct investment

	M0	M1	M2	M3	M4	M5
LGDP	2.4229*** (0.4498)	2.4249*** (0.4489)	2.4225*** (0.4487)	2.4426*** (0.4503)	2.4406*** (0.4487)	2.4642*** (0.4507)
Transparency	0.1363* (0.0724)	0.1517** (0.0728)	0.1296* (0.0723)	0.1320** (0.0726)	0.1279* (0.0724)	0.1356** (0.0724)
Informal Charges	-0.0271 (0.0622)	-0.0307 (0.0621)	0.0002 (0.0637)	-0.0283 (0.0622)	-0.0285 (0.0621)	-0.0275 (0.0622)
Time costs	-0.1285** (0.0568)	-0.1276** (0.0567)	-0.1251** (0.0567)	-0.1134** (0.0588)	-0.1286** (0.0566)	-0.1272** (0.0568)
Proactive	0.0512 (0.0518)	0.0603 (0.0519)	0.0615 (0.0519)	0.0546 (0.0519)	0.0916* (0.0553)	0.0557 (0.0518)
Legal Institutions	0.0357 (0.0502)	0.0298 (0.0502)	0.0299 (0.0501)	0.0311 (0.0504)	0.0296 (0.0501)	0.0489 (0.0512)
Labor	-2.8426*** (1.0463)	-2.9119*** (1.0449)	-2.9444*** (1.0451)	-2.9097*** (1.0486)	-3.0238*** (1.0472)	-2.9234*** (1.0476)
Open	-0.0670*** (0.0272)	-0.0718*** (0.0272)	-0.0662*** (0.0271)	-0.0696*** (0.0273)	-0.0685*** (0.0271)	-0.0712*** (0.0273)
Poverty	0.0204 (0.0128)	0.0198 (0.0128)	0.0186 (0.0128)	0.0202 (0.0128)	0.0187 (0.0128)	0.0206 (0.0128)
Tele	0.0000 (0.0003)	0.0002 (0.0004)	0.0001 (0.0004)	0.0001 (0.0004)	0.0001 (0.0003)	0.0001 (0.0004)
in1gdp		-0.1151* (0.0634)				
in2gdp			-0.1140** (0.0591)			
in3gdp				-0.0569		



i4gdp				(0.0579)		
in5gdp					-0.1244** (0.0613)	-0.0875 (0.0679)
Constant	-0.1065	0.3783	0.5588	0.1588	0.9397	0.0090
Observations	630	630	630	630	630	630
R-squared	0.2485	0.1583	0.1425	0.2006	0.1403	0.1928

(Notes: Dependent variable: Provincial foreign direct investment, LFDI; (*), (**), (***) indicate significantly p-value at 10%, 5% and 1% respectively)

This paper also examines impacts of governance institutions on FDI in relations to the provincial economy size. The impact of transparency on FDI in provinces with small economy size is bigger than that of larger GDP size provinces. This result implies that more transparency would attract more FDI inflows to small GDP size provinces compared to the large GDP size provinces. Table 2 also gives similar empirical results measuring effects of informal charges and legal institutions on FDI in the small and large GDP size provinces. The Figure 2 show more clear results.

Figure 2: The impact of subnational governance institutions on provinces with different size economy



(Note: The red line indicates the impact at province with small size economy; the blue line indicates the impact at province with big size economy)

Conclusion

This paper is to examine the role of provincial governance institutions in determining FDI inflows. Among the five sub-indices of PCI relating to governance institutions, three indices exert a statistically significant role in determining FDI inflows, including transparency, time costs and legal institutions.

Transparency and foreign investment have strongly associated, confirming the findings of previous studies. According to McCulloch et al. (2013), transparency and access to information are more fundamental requirements than the other aspects measured. If entrepreneurs are not able to access information about opportunities, they are unlikely to invest. If they cannot obtain basic legal and regulatory information they will not consider investing. Because transparency sub-index measures whether firms have access to the proper planning and legal documents necessary to run their business, whether documents are available, whether new policies and laws are communicated to firms and predictably implemented, and the business utility of the provincial webpage, it may have a critical role in reducing the risks associated with investments.

Time costs, on the contrary, have a negative and statistically significant impact on FDI inflow. One possibility is that time costs can increase the entry costs of a business. Time costs and regulatory compliance measure time, costs and the length of procedures associated with business registration at local authorities. It thus reflects the ease of opening businesses at the provincial level. The easier firms face entering the market, the higher firms invest opening businesses.

The possible reason explaining for not observing the relation between other aspects of governance and FDI inflows. One possibility is that there is a minimal impact, not mean the impact does not exist. In views of investors, informal charges, proactive of authorities or legal institutions might not be their concerns when opening a business. They are possible charged an informal fee if this incident can shorten time of entry procedure. In the context of Vietnam, informal charges can be seen as norms, thus, it does not matter. The improvement of informal charges might not bring good results due to its reliance on transparency and accessibility to information. Once transparency is improved, the informal charged will be reduced. Theoretically, legal institutions contribute to FDI attraction. In the reality, policies regarding private economic development, labor trainings are not meaningful to business. Foreign investors in Vietnam are mainly investing in short-term due to the investment incentives such as taxation, land access. There is a fact that Vietnam in the past tried to attract foreign investment at any costs, leading to the lower quality of FDI projects. Therefore, local institutions are not problems which investors take into considerations. Another possibility is that an important effect exists, but we still have not found it. However, improving local governance institutions may make investors' businesses more comfortable, they will invest when there are opportunities and the local facilitate the investment.

From these findings, the study provides some recommendations for local authorities. To increase the attractiveness of FDI, transparency exerts significant impact on

FDI, and provinces need have a transparent legal framework. Transparent information will improve market competitive and limit bribes to get information. More specifically, in the modern tendency in high-level management technology, weaknesses from a market where competition is unfair and fragment information are a major obstacle to business operations. It leads to a constraint for province to attract high-quality FDI inflows.

High-quality FDI will flow into institutions that ensuring a healthy competitive environment with appropriate incentives. In addition to reduce the informal charges and enhancing transparency, provinces need to focus on improving the proactive of leadership and the efficiency of legal institutions. Also, there is a need for provincial government to work effectively, handle cases where local officials abuse their power and regulations of localities to seek personal benefits and dominate the enterprise. The province also needs to improve the quality of public information, the quality of export activities and trade fairs. Instead of focusing on increase the quantity of investments, local authorities should have policies to filter out high quality FDI projects and support them, attracting long-terms foreign investors with modern technology and management, and operating for sustainable development purpose.

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Appendix 1. Correlations of variables

	LGDP	Trans	Inf. Charges	Proactive	Time costs	Legal Insti	Labor	open	Poverty	Tele
LGDP	1									
Trans	0.1742	1								
Inf.Charges	-0.0069	0.0763	1							
Proactive	0.0000	0.4048	0.429	1						
Time costs	0.1833	0.3013	0.1345	0.2809	1					
Legal Institution	0.0774	0.2186	-0.0203	0.2226	0.4967	1				
Labor	0.8248	0.1726	0.0053	0.0027	0.1146	0.0163	1			
Open	0.0210	0.1377	-0.0694	0.0744	0.0166	0.0049	0.0305	1		
Poverty	-0.4292	-0.3423	-0.0732	-0.1634	-0.4230	-0.2186	-0.3503	-0.1791	1	
Tele	0.3523	0.1329	-0.1311	-0.0703	0.0187	-0.0381	0.3989	0.3273	-0.3027	1

