

ORIGINAL SCIENTIFIC PAPER

Foreign Direct Investment and Political Risk in Pacific Rim

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ABSTRACT – *The main purpose of this article is to study the effect of political risk on foreign direct investment in the Pacific Rim. The considered time period is from 1984 to 2008. In this study, 12 indexes of political risk offered by Political Risk Services Group have been used. After studying the stationarity of variables by Im-Pesaran Shin test, the benchmark model is estimated for 12 political risks and we come to the conclusion that the risks of Corruption, External Conflict, Internal Conflict, Investment Profile, and Military in Politics have significant effect on FDI.*

KEY WORDS: *Pacific Rim, foreign direct investment, political risk*

Introduction

Nowadays, besides the phenomenon of globalization, foreign investment attraction has become one of the main concerns of developed and developing countries. Fate of national economies is increasingly getting connected with economies of other nations. The phenomenon of globalization has been the main cause of this fact and nowadays, the condition is so that the politicians have the less control over this matter (Lizentiatsarbeit).

Foreign investment not only increases national product and employment, it also affects GNP (Gross National Product) indirectly by overflow of knowledge and technology. It is why the developing countries are trying like the developed countries to attract such capitals in the recent years.

Dani Rodrik (1997) considers it impossible to study the miraculous development of the East Asia without taking into account their governments' policies in private investment. He proves that there is a strong correlation between good institutions and economic growth in Eastern Asia. It is worth mentioning that before 1980's, developing countries have not had a positive attitude towards foreign investment, but during the past thirty years, foreign investment have been increased significantly among the developing countries.

Many factors are involved in foreign investment attraction. From among these factors are GDP, technology gap, wage level, agglomeration of other firms, economic infrastructures, tax, subsidy, unemployment rate, economic stability, political risk, etc.. Determinants of foreign investment for FDI attraction have been studied enough in different studies. In 1990's, studies on effect of risk variables on FDI included cross-country studies (Brunetti and

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Weder, 1998). But in the recent year, studies on FDI determinants have focused mostly on political issues. Political risk is such a risk in which a host government suddenly changes the rules of the game (Butler and Joaquin, 1998).

Existence of disorders and irregularities in a society makes the political leaders of the society think about controlling these tensions; therefore, they are sometimes forced to change laws and regulations which itself leads to unreliability on future and the investors can not forecast well the future conditions.

Factors such as legitimacy, difference in cultural and governmental rules and custom, fund remittance control, etc. are among the factors which increase political risk. Studies indicate that in countries with weak economic systems, poor enforcement mechanisms, ambiguous rules and regulations, corruption is observed more (Treisman, 2000).

Political risk makes a distance between activity and aim. Since the aim of foreign firms is to achieve maximum profit, there is no guarantee in unreliable conditions that their activity leads them towards their goal. Although all investors are encountered with non-financial risks in their foreign investments, direction and value of investment shows high response to the investor's aim and political risk.

Political risk is in relation with international trade and foreign investment. To Simmonds and Robock (1971), political risk is effective on national and international investment only when discontinuity occur in the trade environment and this discontinuity is not predictable and follows political changes.

Although most of economists agree that political factors are effective on the level and value of FDI, they are less sure about the relationship between the nature of FDI and political risk and some of them are not even sure enough about direction. Therefore, this article tries to study the relationship between foreign investments and political risk in the Pacific Rim.

Methodology

Heterogeneous Unit Root Test

To conduct co-integration test for the panel data like time series data it is necessary to perform stationarity test. of course, it should be taken into consideration that panel unit root test has higher power than time series unit root test.

In order to consider unit root in panel data, the following autoregressive model can be used:

$$Y_{it} = \rho_i Y_{it-1} + \delta_i X_{it} + \varepsilon_{it}$$

where $i = 1, 2, \dots, N$ indicates the countries

and $t = 1, 2, \dots, T$ stands for time. X_{it} indicate the exogenous variables, ρ_i indicates autoregressive coefficient, and ε_{it} is the error term. If $|\rho_i| \leq 1, \forall i$, the considered series is stationary, and if $|\rho_i| = 1$, y_i has unit root. LLC, BRT and Hardi unit root tests suppose that $\rho_i = \rho, \forall i$. In this scenario, Y_{it-1} coefficient is used for all homogeneous cross-section. But IPS and Fisher tests are conducted with supposition of heterogeneous coefficient meaning ρ_i (Costantini, Martini, 2010).



Since the economic structures of the Greater Middle East countries are independent from each other, we use IPS test. Im, Pesaran test for every sample of cross- section data is as follow:

$$\Delta y_{it} = \alpha_i + \beta_i y_{it-1} + \sum_{j=1}^{p_i} \rho_{ij} \Delta y_{it-j} + \varepsilon_{it}$$

where p_i is the number of lags in ADF regression.

The zero and alternative hypotheses are as follow:

$$H_0 : \beta_i = 0, \forall_i$$

$$H_1 : \begin{cases} \beta_i = 0 & \text{for some } i's \\ \beta_i < 0 & \text{for at least one } i \end{cases}$$

Data and variables

The analysis we have made to study the effect of political risk on foreign direct investment is limited to 17* countries member of the Pacific Rim in the time period 1984-2008. The data related to political risk has been collected from the International Country Risk Guide, Heritage and other data has been gathered from IMF, UNdata, UNCTAD, and the World Bank.

From 1984 on, the Political Risk Services Group presented 12 indexes for political risk: these indexes have been degreeed from 0 to 12, and higher values shows less risks (Busse and Hefeker 2007).

- Government stability, called GOVST in the empirical analysis, measures the government's ability to carry out its policies and to stay in office
- SOCIO quantifies socio-economic pressures at work in society that might restrain government action or elevate social dissatisfaction and thus destabilise the political regime
- INVEST assesses the investment profile, that is, factors related to the risk of investment that are not covered by other (financial and economic) risk components, such as contract viability (expropriation), profits repatriation or payment delays
- ICONFL stands for internal conflict, measuring political violence within the country and its actual or potential impact on governance by focusing on, for instance, civil war, terrorism, political violence or civil disorder
- ECONFL weighs external conflict, namely the risk to the incumbent government from foreign action, ranging from non-violent external pressure, such as diplomatic pressures, withholding aid or trade sanctions, to violent external pressures, ranging from cross-border conflicts to allout war
- CORR assesses the level of corruption



- MILIT represents the influence of the military in politics, which could signal that the government is unable to function effectively and that, therefore, the country might have an unfavourable environment for business
- RELIG measures religious tensions, stemming from the domination of society and/or governance by a single religious group seeking, for instance, to replace civil by religious law or to exclude other religions from the political and social process
- LAW quantifies law and order, that is, the strength and impartiality of the legal system
- ETHNIC assesses the degree of tensions among ethnic groups attributable to racial, nationality or language divisions
- DEMOC relates to the democratic accountability of the government, that is, the responsiveness of the government to its citizens, but also to fundamental civil liberties and political rights
- BUR stands for the institutional strength and quality of the bureaucracy, which might act as a shock absorber tending to reduce policy revisions if governments change.

Indexes themselves are correlated but each of them alone has a direct relationship with FDI. FDI inflow has been considered as the dependant variable. GDP per capita and population have been used for market measurement. The larger is the market's size, the easier the foreign firm sells its products. From among other variables we can mention trade openness, $\text{openness} = X+M/GDP$, infrastructure (number of telephone lines), inflation and tax.

Inflation and tax are expected to have negative effect on FDI and infrastructure to have positive effect. But effect of openness can be negative or positive. To study the effect of political risk on FDI, the following model is used:

$$\ln FDI_{it} = \beta_1 + \beta_2 \ln POP_{it} + \beta_3 \ln OPE_{it} + \beta_4 \ln INF_{it} + \beta_5 POL_{it} + \beta_6 \ln INFR_{it} + \beta_7 \ln TAX_{it} + \varepsilon_{it}$$

where Ln GDP is the logarithm of gross domestic product, Ln POP is the logarithm of population, Ln OPE is the logarithm of trade openness, Ln INF is the logarithm of GDP deflator, and Ln TAX is logarithm of tax.

Since the Hausman test statistic is $X^2 = 26.3$ ($P = 0.00$), we apply fixed –effects model instead of random-effects.

Before estimating the model, we study the variables' stationarity by Im-Pesaran-Shin test to avoid spurious regression.

Table 1. Unit root test of panel data (1984-2008)

GDP	FDI	POP	INF	INFR	TAX	OPE
2.13*	-7.14*	-5.10*	-4.71*	-3.12*	5.12*	6.02*

The variables are stationary at the 5% confidence level



Results indicate that the variables are stationary at the 5% confidence level.

In the benchmark equation, POL variable indicates the 12 political risk indexes. In table 2, 12 indexes of political risk have entered the equation one by one to control regression. In column 1, the equation has been estimated without political risk. In this model, variables which have effect on FDI are GDP, POP, infrastructure and tax. We have entered each of the 12 risks in the next columns. In column 2, government stability risk which has no effect on FID has been entered; but in this model, openness has become significant. In column 3, risk of social-economic conditions has been entered which again has no effect on FDI, and tax is also ineffective on FDI.

Table 2. Panel analysis, country fixed-effects, 1984-2008

Dependent variable: LnFDI													
	GOVST	SOCI	INVE	ICON	ECON	CORR	MIL	RELI	LAW	ETH	DEM	BUR	
Indep variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
LnGNP	2.01*	3.2*	1.32**	2.21*	2.55*	2.31*	1.18*	2.21*	1.2*	2.12*	2.51*	2.73	2.17*
	(3.1)	(4.2)	(2.25)	(3.13)	(5.15)	(4.12)	(3.17)	(4.1)	(3.33)	(4.11)	(3.17)	(2.59)	(4.11)
LnPOP	1.12*	1.08*	1.3	0.8	0.93**	0.85*	1.1**	0.93**	0.94**	0.99**	1.02**	1.01**	0.93*
	(2.81)	(2.1)	(2.25)	(0.91)	(1.89)	(2.51)	(2.27)	(2.1)	(2.1)	(2.22)	(2.01)	(1.89)	(3.1)
LnOPE	0.15	0.17*	0.27	0.31**	0.35	0.27	0.31	0.41*	0.35	0.42	0.39	0.21	0.22
	(1.22)	(3.1)	(2.22)	(1.99)	(0.95)	(1.1)	(1.31)	(2.1)	(0.91)	(1.12)	(1.1)	(0.73)	(1.1)
LnINF	-0.12	-0.08	-0.13**	-0.09*	-0.14	-0.12**	-0.15*	-0.13**	-0.10**	-0.12**	-0.14	-0.16*	-1.1
	(-1.2)	(-1.1)	(-2.1)	(-2.51)	(-1.31)	(-2.22)	(-2.91)	(-1.93)	(-2.1)	(-2.2)	(-1.4)	(-2.1)	(-1.1)
LnINFR	0.03**	0.09**	0.04*	0.09	0.08**	0.1	0.07	0.11**	0.06**	0.07**	0.05	0.09	0.07**
	(1.19)	(2.1)	(2.56)	(1.21)	(2.2)	(1.31)	(1.22)	(1.98)	(2.1)	(1.81)	(1.31)	(1.1)	(1.99)
LnTAX	-0.18**	-0.17	-0.18	-0.16	-0.09*	-0.15	-0.18	-0.19	-0.1	-0.09**	-1.1	-0.9	-0.1
	(-1.99)	(-1.21)	(-1.01)	(-1.51)	(-1.89)	(-1.31)	(-1.21)	(-1.2)	(-1.25)	(-2.1)	(-0.9)	(-0.8)	(-0.9)
POL	0.13	0.02	0.17**	0.08**	0.15**	0.07**	0.05**	0.09	0.15	0.09	0.04	0.14	
	(1.3)	(1.21)	(1.99)	(2.1)	(2.11)	(1.89)	(2.1)	(1.12)	(0.9)	(0.95)	(1.13)	(1.34)	

Notes: t-values reported in parentheses; * significant at 1% level; ** significant at 5% level;*** significant at 10% level

In the next columns, investment profile, internal conflict, external conflict, corruption, and military in politics are the risks which have effect on FDI; it means that by increase of such risks, the tendency towards foreign investment would be decreased. From among the model variables, GDP and POP have the maximum effect on FDI since the investors become sure that they can sell out their product if these two variables are increased. The results show that GDP has effect on FDI, Behname (2008, 2011a, 2011b) shows the same results.



Conclusion

This article aims at studying the effect of political risk on FDI attraction. After conducting unit root test of Im-Pesaran and Shin, we came to the conclusion that all the variables were stationary and spurious regression was avoided. Afterwards, 12 indexes of political risk were regressed in the base equation and we concluded that the risks of investment profile, internal conflict, external conflict, corruption, and military in politics have effect on FDI and their increase leads to decrease of tendency towards investment. On one hand, variables such as GDP, POP and infrastructure lead to FDI attraction. According to the above-mentioned results, countries member of Pacific Rim have to take necessary decisions to decrease political risks. These countries should control their internal and external conflicts and involvements and corruption in order to be able to increase the value of foreign investments in their countries. On the other hand, by increasing tax, these countries may increase their government's income without decreasing the value of FDI very much. Another recommendation to these countries is that they should control economic risk or inflation. Such countries can control inflation and facilitate inflow of capital to their country by adopting appropriate monetary and financial policies.

*The Pacific Rim countries in this research are: Australia, Brunei, Cambodia, Canada, Chile, China, Colombia, Ecuador, El Salvador, Japan, Mexico, New Zealand, Russia, Taiwan, Thailand, United States

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Strane direktne investicije i politički rizik u Pacifičkom obruč

REZIME – Glavni cilj rada je analiza efekta političkog rizika na strane direktne investicije u Pacifičkom obruč. Analiza obuhvata period od 1984 do 2008. godine. U istraživanju korišćeno je 12 indeksa Political Risk Services Group-e. Nakon proučavanja stacionarnosti varijabli pomoću Im-Pesaran Shin testa, izabrani model 12 političkih rizika je pokazao da rizici poput korupcije, unutrašnjih i spoljnih sukoba, investicionog profila i vojske u politici imaju značajan uticaj na strane direktne investicije.

KLJUČNE REČI: Pacifički obruč, strane direktne investicije, politički rizik

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