The Impact of Corruption on FDI Inflow to South Asian Countries

Muhammad Shabir Jan[*] and Sher Ali[†]

Abstract

Globalization has resulted in a significant increase in the FDI flow. FDI inflow to developing countries has attracted substantial literature. Developing countries are mostly capital lacking in nature and they need foreign capital to boost their economic growth or to overcome the shortage of capital. Different factors affecting FDI flow in literature are investigated. In this connection this study aimed to investigate the impact of corruption on FDI inflow to south Asian countries. Corruption and FDI are investigated in literature for different areas but scarce South Asians economies. Asian Economies is different from Europe, Africa, North America and South America. For this purpose time series data are collected for a panel of countries (South Asian countries) for the period of 1996 to 2016. Pooled OLS estimation technique is employed to assess the required impact. The results showed that the impact of corruption perception index is negative and significant. The results of the present study grabbing hand theory of corruption (corruption discourage foreign investors) in South Asian countries. These countries should reduce corruption to attract foreign investment to the study area. Furthermore, political stability, good governance and peace are essential to encourage foreign investors to invest in South Asian region.

Keywords: Corruption, FDI, Pooled Regression and South Asian countries

Introduction

Foreign Direct Investment (FDI) plays an important role in the growth and development of a country, particularly in developing countries. Developing countries face shortage of capital to invest and they need additional capital to invest in the country to get higher growth and generate employment opportunities. Moreover, FDI caused technological diffusion and augmentation in technical skill of labour by establishing a firm or industry in the host country. Both the technological diffusion and transfer of technical skill raised productivity in production of the developing country. On the other hand developed countries have the opportunities of access to cheap resources of the developing countries. Capital is generally abundant in developed countries and the

[*] Muhammad Shabir Jan, PhD scholar, Islamia College University, Peshawar. Email: m_jan@ymail.com

[†] Dr. Sher Ali, Assistant Professor, Department of Economics, Islamia College University, Peshawar . Email:drali@icp.edu.pk

investors of the developed countries can generate high returns from the resources in developing countries. Hence there exist a mutual opportunity to get from flow of FDI.

FDI is an important instrument for the developing countries through which developing countries can get access to the benefits of globalization (Azam&Uddin, 2001). Stern (2002) argued that multinational organization gives importance to the investment climate of the country thus sound climate of a country can attract more FDI inflow. The climate includes political, economic and social cultural aspects of country. Anjum and Nishat (1998) argued that political stability, law and order situation (peace), mineral resources, technical labor force and economic policies of the government has attracted foreign investors. Dunning (2002) stated that FDI depends on government policies, supportive infrastructure and transparent governance of the host country. Asiedu (2002) has focused on policy reforms as the determinants of the developing countries for FDI inflows and found that the degree of openness to FDI and corporate tax rates are the determinants of FDI. Zhang (2001) argued that the FDI has a significant positive impact on those countries where infrastructure has developed and trade policies are more liberal. Kinoshita and Campos (2002) found significant positive impact of FDI on growth if there is a transfer of technology to the host the country. Lensink and Hermes (2003) found that FDI has a negative impact on the host country and similar results were found by Sylwester (2005). Zaidi (2004) stated that in Pakistan the level of saving and investment is less than the desired level, so the gap can be filled from the transfer of outside resources in the form of FDI. Further Zaidi (2004) stated that increases in the foreign capital inflow can be improved through the government policies that can gave incentives such as tariff reduction and tax concessions to the investors. The World Bank states that it "has identified corruption as among the greatest obstacles to economic and social development. It under mines development by distorting the rule of law and weakening the institutional foundation on which economic growth depends.

Foreign direct investment is indispensable for the economic development of the host countries. Every country is trying hard to attract more and more foreign direct investment by providing the exemption and incentive as well as facilities to foreign investors. Especially the developing countries like Pakistan and some Asian countries need more FDI to boot the economy and generate employment forlocals.

The ongoing process of world economy integration, which has been gaining momentum since the beginning of the 1990s, has led to a significant change in the attitudes of host countries with

respect to inward FDI inflow. FDI is no longer regarded with suspicion by developing countries. Controls and restrictions over the entry and operations of foreign firms are now being replaced by policies that aim to encourage FDI inflows .Modernization theorists argue that FDI provides host economies with capital, promotes technology transfer,and modernizes their management skills and corporate governance. These in turn raise labor productivity and accelerate economic growth (Blomstrom & Kokko 1996; Choi 1998 &Markusenand Venables1999). They also argue that FDI reduces income inequality via the Kuznets effect in which income inequality increases at first as per capita income grows but declines later once acertain level of development has been attained (Jin 2009). Along with this, an extensive network of bilateraland regional investment agreements, which seeks to promote and protect FDI from partner countries, has also emerged. Until recently, various literature strongly agreed that multinational corporations (MNCs) invest in specific locations mainly because of the host countries' strong economic fundamentals, such as a large market size, stable macroeconomic environment, availability of skilled labor, and infrastructure, that influence the attractiveness of the countryto FDI inflows (Dunning 1993; Globerman & Shapiro 1999; Shapiro and Globerman2001). However, the host country's economic fundamentalists may not be sufficient forinward FDI. Therefore, studying a new which factors determine FDI inflow has become necessary. In this regard, one of the most damaging risks that MNCs must consider when entering emerging market economies is the threat of corruption, which undermines economic reform and, ultimately, national economic stability. Moreover, corruption raises the costs of business operations, distorts the allocations of resources and prices ofgoods and services for consumers, and discourages FDIs (Zhao, et al. 2003). For instance, surveys of private firms in Latin America found thatcorruption negatively affects sales, investments, and employment growth, thereby reducing firm competitiveness without producing any positive effects (Gaviria2002).

According to Myint (2000), corruption is defined as the use of public office for private gain, or the use of official position, rank, or status by an office bearer forhis/her own personal benefit. From this definition, examples of corrupt behavior would include: (a) bribery, (b) extortion, (c) fraud, (d) embezzlement, (e) nepotism, (f) cronyism, (g) appropriation ofpublic assets and property for private use, and (h) influence peddling. In this list of corrupt behavior activities such as fraud and embezzlement can be undertaken by a single official

without the involvement of a second party. Other activities, such as bribery, extortion, and influence peddling, involve two parties, namely, the giver and taker in a corrupt deal. Political corruption by public officials can assume many forms, including bribery, embezzlement, extortion, nepotism, and graft in which public officials either directly steal public funds or illegitimately benefit from public funds. Freedom indexes an indicator of the degree to which an economy is free of such forms of corruption. Similarly, the World Bank focuses on the abuse of public power for private benefits in defining corruption (Tanzi1998). Busseet al.(1996) define corruption as the useof power by government and quasi-government officials and agents to extract quasi rents from businesses for their own profit. Given this simple but broad definition,corruption is sometimes all-inclusive, taking intoaccount bribes,bureaucracy, institutional inefficiency, and political instability (Habib&Zurawicki2001).

Corruption is the main problems in every country but most effected countries are developing countries like Pakistan. For this problems this study will be carry out to find out the impact of corruption on FDI of an Asian economy particularly of Pakistan. From Previous literature showed that various study has been conducted on corruption and FDI, but still there is no vivid evidence exist that corruption encourage or discourage in our countries. Most previous study supports the "Grabbing hand theory of corruption indicates negative relationship between corruption and FDI. Corruption increases the cost of economic activities which impede the inflow of FDI, (Shleifer and Vishny, 1993 and Blisand Di Tella, 1997, and Adit, 2003. While some of the study backup the helping hand theory of corruption. This theory stated that corruption has positive effect on FDI,it could be an efficient lubricants for strict and rigid economics regulation, and red tape, attracting FDI (Lui,1985: Beck and Maher, 1986: Walder,1995 and Saha, 2001), because of the "mixed results" raise a major question to analyze the impact of corruption on FDI, whether it is beneficial or not in Asia. The Current study is a step to answer the question in the context of Pakistan and whole Asian region.

FDI has an important role in the development of developing countries. Developing countries are willing to increase the inflow of FDI to overcome the problem of capital shortage, through the encouragement of FDI inflow, try to avoid corruption and to improve the economic situation of countries in order to make their countries economy advanced (Sading et al., 1999). This study has multifold contributions as it broadens the scope of literature by providing in depth insight to the

corruption factors and its impact on the country foreign direct investments in Central Asia. The current study is conducted on the corruption and its impact on the FDI while using differentvariables such as CPI. GDPG, Inflation, Real interest rate etc.

Research Question

This study has mainly focused on the impact of corruption on the foreign direct investment based inflow on the literature review, corruption has vital role in the determination of FDI inflow. Therefore, this research study will try to answer that whether corruption affect FDI inflow in Asian countries or play their part in the determination of FDI inflow?

Hypotheses of the Study

- Corruption donot affect FDI in Central Asia.
- Helping hand theory of corruption does not valid in the selected region.

Significanceand Contribution of the Study

The importance of the study is to see the impact of corruption on Foreign direct investment to see that corruption is good for economic activities of the countries or not. This study is also good for those countries to see their level of corruption and how much it effects their countries. This study will also contribute to the current literature. This study is also helpful for foreign investor to check the level of concern Asian countries for their investment and to choose the best countries for their future investment. This study is also helpful for those scholars and researchers who want to work in the relevant field with regard to corruption and foreign direct investment.

Limitation Of The Study

This study is based on the secondary data retrieved for the world bank website. The data availability is the main constrained in this research due to which the study fail to used large set data for analysis.

Literature Review

There are two theories about the association between corruption and FDI i.e. The grabbing hand and The helping hand theories. The Grabbing Hand theory presented by Sheleifer and Vishny(1993), and the helping hand is presented by Walder(1995). Moreover, the eclectic paradigm theory of Foreign direct investment developed by professor Dunning (1998) which is most quoted by researcher in their studies.

Grabbing Hand Theory of Corruption

The grabbing hand theory of corruption which is supported by the economist Shleiferand Vishny(1993), Bliss and Di Tella(1997) suggested that corruption acts in an economy like a grabbing hand that increases, the cost of economic activities to carry out in the market. According to Habib and Zurawicki(2002) and Broutherset al. (2008),

corruption creates additional costs, and risk forinvestors.

Helping Hand Theory of Corruption

The Helping Hand theory of corruption by (Leff, 1964), Lui (1985), Beck and Maher (1986), and Adit(2003) suggests that Instead it is an obstacle for economic activities, corruption could be an efficient lubrication, which greases the wheels against the rigid economic regulation and red tape, the elective paradigm theory of foreign direct Investment.

Methodology of the Study

Population of the Study

The current study is conducted to analyze the impact of corruption, on FDI in the context of South Asian countries.

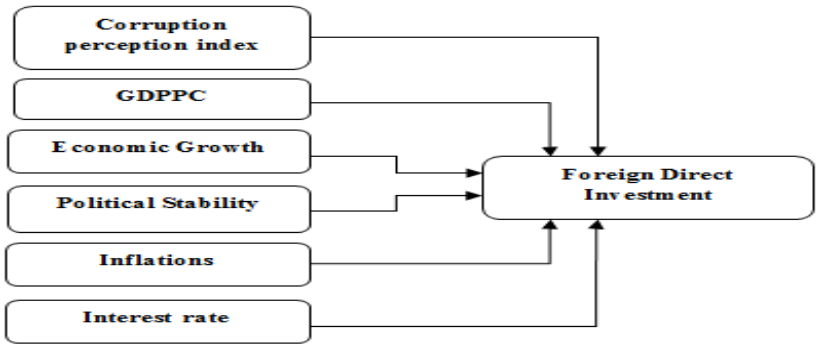
The sample of the study consists of panel data set (annually) for the South Asian countries for which data are available over the time span of 1996 to 2016.

Central Asian Countries: Kazakhstan, Kyrgyzstan, Russia, Uzbekistan, Turkmenistan.

Theoretical Framework

There are two consensuses about the impact of corruption on FDI such is by Sheleifer and Vishny (1993), the grabbing hand and by Walder (1995) the helping hand. Moreover, the elective paradigm theory of Foreign direct investment developed by professor Dunning (1998) which is most quoted by researchers in their studies. The first theory (Grabbing hand theory that corruption is not good for a country economy and it is like grabbing hand which increase the cost of economics activities to carry out in the market . Corruption increase risk for investor and create additional cost (Brouthers*et al*. (2008)**.**

The Second theory (Helping hand theory) support the corruption and states that it is not an obstacle for economic activities but corruption can be an efficient lubricant which greases the wheels and good for rigid economic regulation and red tape. Theoretical framework of the study is given below.



Model of the Study

In light of the current literature the following regression equation is used as following the studies of (Rehman and Naveed, 2007; Sadig (2009) and Alemu (2012).

$$FDI_{i,t} = \alpha + \beta_1 CPI_{i,t} + \beta_2 INFL_{i,t} + \beta_3 GDPG_{i,t} + \beta_4 GDPP_{i,t} + \beta_5 PRISK_{i,t} + \beta_6 RIR_{i,t} + \varepsilon_{i,t}$$

In the given model, the subscript i represent to the unit of observation, example Countries whereas subscript t is referring to the time and € is the error term.

The independent variables are

CPI: Corruption Perception Index
GDPG: Gross Domestic Product Growth
GDPPC:Gross Domestic Product Per Capita
PRISK: Political Stability
INFL:Inflation
RATE RIR: Real Interest

Results and Discussions

Regression Results and Finding for Central Asia.

To examine the effect of independent variables on dependent variable and to analyze the change because of the independent variable in dependent variable Pooled OLS regression were used and through Chow Test Pooled OLS effect model was selected for analysis. The following table narrated the results of regression analysis.

Table 4.2 Pooled OLS Regression

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	0.197	1461.49	0.5236	0.6078	
CPI	-0.61	0.28	-2.178	0.0349	**
INFL	-0.25	0.132	-1.894	0.002	***
GDPG	0.06	0.028	2.143	0.03806	**
PCGDP	1.14	0.118	10.363	0.0001	***
PRISK	1.677	0.7986	2.099	0.0412	**
RIR	-0.5131	0.639	-0.802	0.42925	

Mean dependent var	11375.61	S.D. dependent var	21940.94
Sum squared resid	1.21e+09	S.E. of regression	5805.031
R-squared	0.940000	Adjusted R-squared	0.930000
F(6, 36)	93.99983	P-value(F)	1.72e-20
Log-likelihood	-429.8529	Akaike criterion	873.7057
Schwarz criterion	886.0341	Hannan-Quinn	878.2521
Rho	0.285153	Durbin-Watson	1.370552

The table represents empirical findings of the pooled regression model. The first column of the table enlists the explanatory variables of the study. Coefficients, standard error, t and p-values are reported in column second, third, fourth and fifth respectively. The overall model is good fit as shown in by the F statistic of 93.99983 with p-value 0.0000 and the R^2 value is 0.940000. This R^2 represents the ratio of variation, in dependent variable FDI explained by the variation in explanatory variables. **R** represents that there is 94.15% variation in dependent variable (FDI) is due to the independent variables in the study

The result of pooled OLS effects regression shows that the coefficient of CPI (Corruption Perception Index) is -0.61 with p-value 0.03494 and significant, suggesting that host country corruption negative affect amount of inflow of FDI, which is supporting the "Grabbing hand theory of corruption" i.e. there is negative relationship between corruption and inflow of FDI. This shows that the inflow of FDI increase by -0.61 unit's dollars when there is one unit decrease in the level of corruption (goes up the CPI score) in Asia. According to Transparency International Organization (2014) CPI score range is (0 to 10), 0 means the most corrupt economy and 10 means most clean economy. Therefore, when the level of corruption increases the CPI score decreases or moving down toward 0 lead to worst governance of the economy. If the level of corruption decreases the CPI score increases or goes up toward 10 tend to improvement in governance. If the countries in Central Asia would be able to reduce the perceived uncertainty of corruption to the same level as Japan mean CPI score 7.112 highest score in Asian economies, would attract more FDI and Israel is the second countries which attract more FDI. In opposite, some of the countries like India and China having high level of corruption but at the same time attracting FDI, could even double their FDI inflow, if the existing level of corruption can have decreased (Alemu, 2012). In case a country like Angola with high level of corruption managed to decline its corruption to the level, of the country Bostwana an intermediately corrupt country its inflow of FDI would roughly double (Dahlström and Johnson, 2007). The earlier empirical research studies such as Wei (2000a), Habib and Zurawicki (2002), Voyer and Beamish (2004), Dahlström and Johnson (2007), Rehman and Naveed (2007), Mathur& Singh, (2013), Akcay (2006) ,

Mauro (1995) and Quazi (2014) confirmed that in fact the host country corruption reduce the inflow of FDI.

The variable inflation (INFL) is negative but significant at 10% level and have effect on dependent variables. The coefficient of INFL is -0.25with p-value is 0.002 which is less than 0.10 meaning that INFL has found effect on dependent variable. It indicates that if there is one unit change in independent variables that is (INFLA) there will be -0.25 decrease in FDI**.** These finding are aligned with Busse and Hefeker (2007), Mauro (1995) and Drabek and Payne (2002) as they examined that inflation has positive and significant effect on incoming FDI.

The coefficient of (GDPG) is positive and statistically significant. The empirical results explain that one unit increase and improvement in GDP growth (GDPG) brings 0.06units increase in the inflow of FDI in Central Asian economies. GDP growth is the significant determinant of the ability of host country, to attract more FDI. The sustainable economic growth of the host country is one of the most important and positive attributing factors and has a vital role to encourage and boost up foreign investors' confidence, and a symbol of stable government hence promote inward of FDI (Alemu, 2012). The same results also found by the previous research studies i.e. GDPG has positive significant effect on FDI (Al-Sadig, 2009; Alemu, 2012 and Mathur& Singh, 2013).

The political risk (PRISK) has positive sign but significant contributor in the regression model in the current study. Which means the coefficient 1.677of (PRISK) is different from zero as the p-value is 0.0412 which is less than 0.05 shows effect on response variable. So, political stability is play vital role in countries economy as it creates positive effect on GDP inflow. The current study results are consistent with the existing literature Quazi (2014) and Al-Sadig (2009) who found that political stability has negative significant effect on FDI which means that the stable political environment of the host country can boost up the foreign investors' confidence hence attracting more FDI.

This study find out that variable PCGDP significant contributor in regression model as its coefficient is 1.677 (where positive coefficient sign obtained, to the existing literature) with p-value is 0.0001 meaning that PCGDP is affecting the response variable. It indicates that if one unit increase in PCGDP there will be 5.13955 increases in FDI inflow. PCGDP play important role in the economy of the countries. GDP inflow is strongly based on PCGDP and its effect is found is positive and these results are support by many literature of various research paper.

The real interest rate has negative sign but insignificant which show contribution in response variables. The coefficient is -28.5131 with

p-value 0.42925 which indicates that there is one unit decrease in real interest rate, there will be -0.5131 increases in FDI Inflow. The real interest rate is most important determines because if the interest rate of the countries decrease investor will take more debt to support their investment and as a result the economy will boost up but in this case the result is insignificant which show no contribution on dependent variables.

CHOW Test

The Chow test is used to describe whether fixed effect model or simple pooled OLS regression is fit for analysis of the data.

Null hypothesis: Pooled OLS regression model is fit (no structural break)

Alternative hypothesis: Fixed effects model is fit (structural break)

F statistic = 10.301658 with p-value = 0.9474

As the p-value is greater than 5%, so the Alternative hypothesis rejected in favor of null hypothesis and concluded that there is no structural break in the data and suggesting pooled OLS model is fit for data analysis.

Heteroskedasticity

For heteroskedasticity detection the Breusch-Pagan/Cool-Weisberg test is used in this study and checks the linear form of heteroskedasticity in the data. In the data the hypothesis is tested are;

Null hypothesis: error variances are all equal

Alternative hypothesis: error variances are a multiplicative function of one or more variables

Chi-square = 38.831601 with p-value = 0.065626 which means heteroskedasticity is not present in the data.

The alternative hypothesis shows that when there is increase or decrease in the error variance as the predicated value of y increase i.e. the lower the predicted value of 'y' having the small error variance and the small chi-square value shows that heteroskedasticity is not found in model.

As the above chow tests describing that pooled OLS model is fit as well as the absence of heteroskedasticity in data which is detected by Breusch-Pagan / Cool-Weisberg, test leading that the pooled regression model can be used for analysis.

VIF Test ForMulticollinearity

Variable	VIF
CPI	1.996
INFL	1.095
PCGDP	1.548
GDPG	1.579
PRISK	1.722
RIR	7.158

If the value of variables is greater than 10 it indicates Collinearity problem. So in this case in the given tables all values of independent variables is less than ten it show no multi Collinearity problem.

Conclusion of South Asian Countries

This study was conducted to investigate the effect of corruption on FDI inflow in South Asia. Data were taken for the years 1996-2016 and were applied the regression Model. The sample consists of 7 countries from south Asia. The countries were selected through convent sampling techniques. Only one countrywas excluded due to lack of data. The statistical software Gretal was used for analyzing the variables and for the interpretation of the results. The Panel data is not having the issue of heteroscedasticity and multicollinearity which was tested and found these issues. To remove the heteroscedasticity from the data we have applied pooled OLS with robust standard error.

The results revealed that If the countries in south Asia would be able to reduce the perceived uncertainty of corruption to advance countries like Japan and America. The South Asia countries should try to give major attention on governance and political stability.

The relation between GDPP and FDI was found positive and significant which interpret that due to GDP per capita, the South Asia countries foreign direct investment is increasing and GDP per capita play vital role to attract more foreigner investor. The relation between and real interest rate and FDI was also found positive and significant. As the interest rate decreasing, investor will take more debts, particularly foreign investor to support their business and growth of business and as results the FDI will increase. The study also concluded that the relation between PRISK and FDI is significant and negative, which is like that of trade off model of (sading,2009), it concluded that low interest rate can create investor confident and hence attract more FDI. The South Asian should try to give great attention to governance, law, peace and cooperation between trade and economic to reduce corruption and to increase the level of FDI.

References

Ades, A. and Di Tella, R., (1999), Rents, competition and corruption, *The American Economic Review*, 89, 982-993.

Bardhan, P. (1997), Corruption and development: a review of issues, *Journal of Economic Literature*, XXXV, 1320-1346.

Braun, M. y Di Tella R. (2000) "*Inflation and Corruption*". Harvard Business School Working Paper.

Caves, R. (1996).*Multinational Enterprise and Economic Analysis*. Cambridge, England: Cambridge University Press.

Ciochini, F, Durbin, E; David,T-C, (2003): *Does Corruption increase Emerging Market Bond Spreads, Journal of Economics and business*. Sep-Dec, 2003 55 (5-6): 503-28.

Dahlström, T. and Johnson, A. (2007), *Bureaucratic Corruption, MNEs and FDI*, Jönköping International Business School (JIBS), paper n. 82.

Fisman, Raymond and Roberta Gatti (2002): Decentralization and Corruption: Evidence Across Countries. *Journal of Public Economics*, vol. 83, pp. 325-345.

Friedman, E. (2000) "Dodging the Grabbing Hand: The Determinants of Unofficial Activities in 69 Countries", *Journal of Public Economics*, Vol. 76.

Hines, J.R., (1995), Forbidden *payment: foreign bribery and American business after 1977*, Working paper 5266, NBER.

IMF, *The Balance of Payment Manual*, International Monetary Fund, September 1993.

Johnson, A. (2005), *Host Country Effects of Foreign Direct Investment*, The Case of Developing and Transition Economics, Jönköping International Business School (JIBS) Dissertation Series, No. 031.

Kaufmann, Daniel, Aart Kraay, and Pablo Zoido Lobatón, (1999), Governance World Bank Policy Research Working Paper No. 2196 (Washington: World Bank).

Kaufmann, D. (1997) "Corruption: The Facts". World Bank Policy Working Paper. Knack, Stephen, and Philip Keefer, 1995, *Institutions and Economic Performance:*

Mauro, Paolo, (1995), "*Corruption and Growth*," Quarterly Journal of Economics, Vol. 110, No. 3, pp. 681–712.

The Effects of Corruption on Growth, Investment, and Government Expenditure, IMF Working Paper 96/98 (Washington: International Monetary Fund).

The persistence of corruption and slow economic growth, IMF Staff Papers Vol. 51, No. 1, 2004 International Monetary Fund.

Markusen, J. (1995). "*The Boundaries of Multinational Enterprises and the Theory of International Trade*."Journal of Economic Perspectives 9: 169-89.

Mody, A. and Wheeler, D., (1992), *International investment decisions: The case of USfirms*, Journalof International Economics, 33, 57-76.

North, D. (1990), *Institutions, Institutional Change and Economic Performance*, Cambirage University Press.

North, D. (1991), *Institutions,* Journalof Economic Perspectives, 5, 97-112.

Rose-Ackerman, S. (1978): *Corruption. A study in political economy*. London/New York: Academic Press.

Rose-Ackerman, S. (1996) "*The Political Consequences of Corruption. Causes and Consequences*", *World Bank, Note 74*.

Smith, Adam (1776), *An Inquiry into the Nature and Causes of the Wealth of Nations*(New York: Modern Library, 1937 [1776])

Gert Tinggaard Svendsen (2003): *Social Capital, Corruption and Economic Growth: Eastern and Western Europe,* ISSN 1397-4831.

Tanzi, V. y Davoodi, H. (1998) "*Corruption, Public Investment and Growth*", *International Monetary Fund Working Paper, 97/139.*

Wei, S-J, (2000a), *How taxing is corruption on international investors?* The Review of economics and statistics, 82, 1-11.

Wei, S-J, (2000b), *Local corruption and global capital flows*, Brooking papers on *Economist,* 2000 (2).