New Horizons, Vol.13, No.2, 2019, pp 223-240 *DOI:10.2.9270/NH.13.2(19).14*

IMPACT OF MACROECONOMIC STABILITY AND TERRORISM ON FOREIGN DIRECT INVESTMENT IN PAKISTAN

Dr. Musarrat Shamshir, Dr. Samina Sabir, and Dr. Rukhsana Khan

ABSTRACT

This study investigates the impact of macroeconomic stability, absorptive capacity, and terrorism on Foreign Direct Investment (FDI) of Pakistan over the period 1975-2015. There exists a problem of endogeneity and omitted variable bias in the macroeconomic stability, absorptive capacity measures and institutional variables. Therefore, we use two stage least square (2SLS) and Generalized Method of Moment (GMM) to tackle the problem of endogeneity and other related problems. We consider macroeconomic stability indicators and terrorism as a measure of socioeconomic variables. Macroeconomic stability, absorptive capacity and GDP per capita growth have positive and significant impact on FDI in Pakistan. We also find that terrorism has negative and significantly impact FDI. Therefore, it is necessary for Pakistan reduce terrorism to attract more FDI in Pakistan.

Keywords: *FDI; GMM; Macroeconomic Stability; Terrorism.*

INTRODUCTION

The objective of this study is to examine the socioeconomic determinants of foreign direct investment (FDI) in Pakistan. It has been widely discussed that how developing countries can attract FDI inflows. Academia and policy makers believe that FDI effectively eradicate poverty and income inequality. Like other developing countries, Pakistan is also striving hard to attract FDI to increase the pace of development and growth. It has been enormously studied that saving and investment are instrumental for economic growth and development. High level of saving and investment are required to foster economic growth and development. Unfortunately, Pakistan lacks the adequate amount of savings; therefore, a gap exists between required investment and saving. For example, it has been reported that savings were Rs. 2607 billion and investment were Rs. 3022 billion GDP and that indicates the saving-

investment gap was Rs. -416 billion. Furthermore, savings are Rs. 4173 billion and investment is Rs.4527 billion in 2015-2016 that show the savings-investment gap of Rs. -354 billion (Pakistan Economic Survey, 2015-2016). Therefore, it is most desirable for Pakistan to attract FDI to fill savings-investment gap. A strand of literature confirms that FDI enhances economic growth through spillover of technology, employment, productivity improvements and management skills (Asiedu, 2002; Busse & Hefeker, 2007; Yu & Walsh, 2010).

To attract FDI inflows, the government of Pakistan adopted trade liberalization policies and special incentives such as tax concession; low tariff rates and subsides on infrastructure (Zaidi, 2005). It is observed that such type of policies changes would have immense impact on the decisions of foreign investor. To boost private sector investment and to attract FDI, Pakistan has pursued trade liberalization policies, deregulated, and privatized financial sector in late 1980s. It is worth mentioning that FDI inflow in Pakistan has increased from US$ 23 million to US$ 5.4 billion in 2006-2007, and then it surged to US$ 20.587 billion in 2015. We can see the trend of in-warded FDI in Pakistan from 2000-2016 in table 1. The table clearly shows that FDI increased till 2006-2007 and then declined sharply. There are social and economic factors responsible for this deterioration of FDI inflows in Pakistan such as war and terror in the country, high inflation rate, lack of political stability and lack of environment which is conducive for business and investment.

However, China Pakistan Economic Corridor (CPEC) is the part of one belt-one road initiative of China. This economic corridor is a game changer for Pakistan, China and for whole Asian Region. Gwadar Port of Pakistan connects with North West region of Xinjiang through highways, railroads, and pipelines. CPEC will spur economic growth in Pakistan through foreign direct investment (FDI). Expected investment is US$62 billion and this investment likely transform Pakistan into hub of economic activities. This project may directly increase approximately 700,000 employment opportunities between 2015 and 2030 and increase economic growth from two percent to 2.5 percent. It is expected that the project will increase the confidence of investors of China and other countries to invest in Pakistan. However, there are certain other factors such as macroeconomic stability, adsorption capacity and institutions that determine the investment and economic growth. If there is macroeconomic instability, low absorptive capacity, political instability and internal war

and terror in Pakistan, then it would not be possible to attract FDI inflows to spur economic growth.

Table 1. Country-wise total FDI inflows in Pakistan

Years	2000-01	2002-03	2004-05	2006-07	2008-09	2010-11	2012-13	2014-15	2016-17
USA	54.900	226.600	373.000	1766.800	427.400	499.700	299.700	823.300	685.500
UK	56.700	184.800	199.100	1820.100	185.700	232.100	567.000	399.100	-126.400
UAE	-5.700	120.000	417.300	677.000	228.000	291.700	29.500	225.200	96.800
Germany	15.500	3.800	15.200	85.900	77.000	19.700	17.700	-18.200	-2.700
France	0.700	2.600	-3.500	1.500	6.500	17.800	25.200	-214.900	52.300
Hong Kong	-12.700	5.200	61.200	-40.000	158.700	148.800	171.600	72.700	-245.800
Italy	1.300	-0.100	0.400	0.300	1.200	2.600	199.400	115.400	60.500
Japan	6.700	13.800	41.800	68.400	68.200	8.400	34.500	74.000	58.100
Saudi Arabia	1.400	43.600	18.200	105.100	-90.200	6.600	3.300	-64.400	15.600
Canada	6.200	0.500	2.000	10.900	2.600	4.100	-13.000	-25.700	35.600
Netherland	-5.900	3.100	59.800	777.900	47.600	-40.600	-108.400	-35.900	442.700
South Korea	0.500	-6.700	1.400	1.500	-0.900	6.100	25.200	4.500	17.100
Others	97.800	219.100	490.700	1684.500	2097.600	802.300	324.200	549.900	1128.600
Total	217.400	816.300	1676.600	6959.900	3209.400	1999.300	1575.900	1905.000	2217.900

Source: Pakistan Economic Survey

If there is macroeconomic instability in the country, local and foreign investors are reluctant to make investment in a host country. Perhaps, Pakistan has been facing the problem of persistent increase in current account deficit, fiscal deficit, high inflation, increase in exchange rate, low trade openness and low economic growth since 1972. An unstable macroeconomic environment retards not only domestic private investment but also foreign investment, thus suppressing economic growth. It is necessary to examine the impact of macroeconomic instability on FDI. We construct macroeconomic stability index using principal component analysis.

If the absorptive capacity is not sufficient, FDI does not flow in such type of country. Bottleneck of absorptive capacity includes lack of human capital; insufficient financial structures and inadequate infrastructure restrict the foreign investor to make investment. FDI does not only bring capital but also brings advanced technology which needs sufficient human capital. Pakistan is spending just two percent of GDP on education which indicates serious condition of lack of human capital development in Pakistan. Financial sector plays a key role in economic development by absorbing capital inflows if these inflows are in tangible form. Therefore, financial development may be considered as a prerequisite for the FDI to support economic growth. In other words, financial development and FDI

are complementary for economic growth and development. Financial sector of Pakistan has undergone the process of deregulation and privatization since 1989. It is, therefore, resilient to absorb any shock and has capacity to absorb foreign capital inflows. However, the countries that have good quality infrastructure especially physical infrastructure, ports and highways in a good position are able to attract more FDI inflows. The investors are in search of market to maximize their profit through sale and purchase of goods and services, for which infrastructure is required (Asiedu, 2002). Moreover, good quality transport infrastructure is a prerequisite to attract FDI in developing countries (Bakar, Mat, & Harun, 2012). Pakistan is expending highways to attract more FDI in a country. China Pakistan Economic Corridor (CPEC) is the crucial step that Pakistan has taken to develop road infrastructure and attract more FDI. In this study, we also examine the effect of absorptive capacity on FDI using time series data from 1975 to 2015. We construct absorptive capacity index using principal component analysis.

Moreover, the political instability; a measure of institutional quality, is another determinant of FDI inflow which impact the decision of investors to make investment (Sabir, Rafique, & Abbas, 2019). Continuous autocratic government takeover from 1977 to 1988 suppressed the Pakistan's economy in term of low investment and economic growth. Then nine different types of government had ruled from 1988 to 1999, it was the time period of high political instability followed by the judiciary crisis of 2006-2007 (Khan, 2012). Political instability creates uncertainty and lack of credibility for national and foreign investor to bring and invest their capital in highly unstable environment where there is a high chance of policy reversal.

FDI inflows depend on a business friendly and conducive environment in the host country (Buckley, Clegg, & Wang, 2002). Terrorism does not only damage physical infrastructure and human capital but also causes fear of loss which enhances the uncertainty in the form of increase in high perceived investment risk. Perhaps, high risk without an increase in the expected return on investment will drive FDI away from host country (Shahzad, Zakaria, Rehman, Ahmed, & Fida, 2015). Therefore, terrorism does not only have detrimental effects on FDI inflows but also on economic growth due to shifting of resources from growth increasing activities to less productive activities like anti-terrorism and security related expenditures (Abadie & Gardeazabal, 2008; Shahbaz & Shabbir, 2012).

There are various studies which have indicated that income inequality, financial repressions, poverty, and inflation have triggered the terrorism in the Pakistan (Shahbaz, 2013; Shahbaz, Shabbir, Malik, & Wolter, 2013). This study fills the gap in literature by examining the empirical relationship among macroeconomic stability, terrorism and FDI in Pakistan.

The study is organized as follows. Section two presents the overview of macroeconomic environment, and terrorism in Pakistan. Section three describes methodology and data. Section four presents the results and discussion. Section five concludes overall findings of the study.

Overview of Macroeconomic Indicators and FDI

Macroeconomic stability is needed to achieve high and sustainable economic growth. It causes inflows of capital that enhances economic growth. Principally it increases the confidence of the investors by providing them incentives of high investment. However, Pakistan could not be able to maintain macroeconomic stability due to current account deficit and fiscal deficit that led to low foreign direct investment, and hence low economic growth.

We can look at the persistence of current account deficit from 2005 to 2015 in figure 1. It is evident that current account deficit has extremely increased from 2005 to 2008. It was 3.29 percent of GDP in 2005 and increased to 9.20 percent of GDP in 2008 and then sharply declined to 0.59 percent of GDP in 2015. Figure 1 clearly indicates that the as the current account deficit increases, the GDP growth rate of Pakistan decreases. The period in which current account deficit has improved, growth rate has also improved. Hence, we can say that high current account deficit induced lower GDP growth rate in Pakistan in past decades. Moreover, this escalating deficit led to increase exchange rate because the State Bank of Pakistan adopted tight monetary policy (Mangla & Din, 2015).

The major economic factors that improved the current account deficit are increase in remittance from overseas Pakistanis, friendly money payment from international monetary fund (IMF), bonds issued by European Union and *Sukuk* bonds (Mangla & Din, 2015). There is a need to think about the aftermath of reverse trend of oil prices and deflation that can affect remittances and lead to higher current account deficit. However, it is a worth mentioning that increased in FDI during 2005 to 2009 also mitigated the problem of widening current account deficit. Thus,

a persistent rise in robust economic growth can attract foreign direct investment inflows.

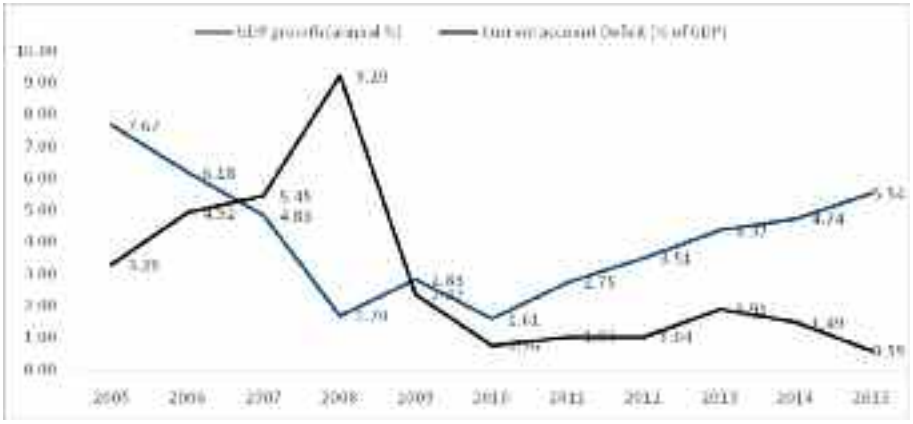

Figure 1. FDI, GDP Growth and Current Account Deficit

Despite the problem of current account deficit, Pakistan is also facing the problem of fiscal deficit and it is rising over the time accompanied by high inflation. In 2005, fiscal deficit is 3.3 percent of GDP and it increased to 7.6 percent of GDP in 2008. Then there is a declining trend in fiscal deficit till to 2011 follow by 8.8 percent increase. From 2012-2015, fiscal deficit has decreased to 5.5. Similarly, inflation was 9.06 in 2005 and reduced to 7.6 in 2007. For next three consecutive years, inflation was in double digit that is considered as detrimental for FDI and economic growth from 2008 to 2011. From 2012 onwards, inflation reduced to 2.54 in 2015 from 9.69 percent in 2012 accompanied with improved fiscal deficit. High inflation and high fiscal deficit led to lower investment that resulted in lower GDP per capita. This is shown in figure 2.

Though there is persistent decline in inflation and rise in GDP growth rate but FDI as a percentage GDP is declining over the time due to many reasons that we discuss later. However, stability and normality of inflation spur economic growth. High inflation is considered as a tax on FDI which reduces FDI in host country. Exchange rate fluctuation also affects FDI and economic growth. There exist negative relationship between exchange rate and FDI, i.e. depreciation of currency increases exchange rate which has positive effect on FDI. Similarly, appreciation of currency attracts less FDI that has negative impact on FDI. In case of Pakistan, currency of Pakistan depreciated over the time especially from 2005 to 2014 and exchange rate increased.

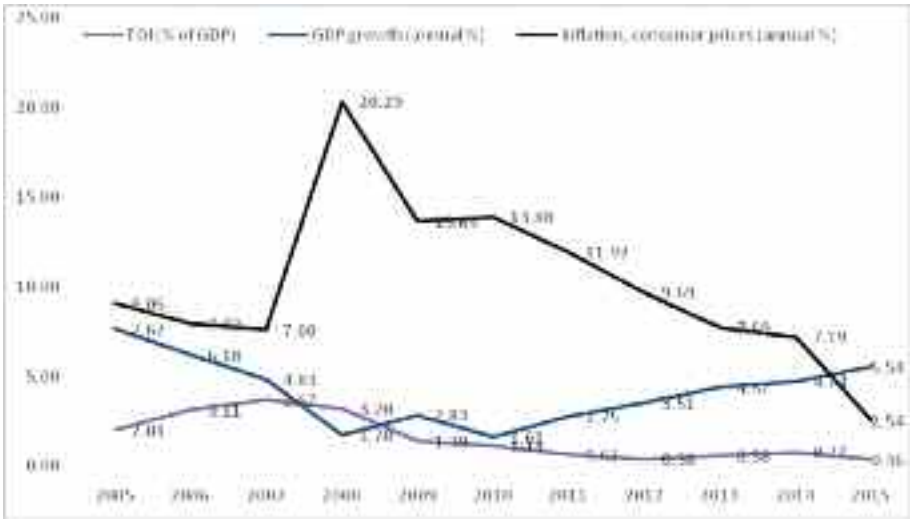

Figure 2. FDI, GDP Growth and Inflation

We measure the exchange rate variability by taking the percentage change in it. Exchange rate variability is very high from 2007 to 2009, then variation in exchange rate declined until 2011. There exists a high variation in rate in 2012 and 2013 but then calmed down in 2014. During the time period of high variation in exchange rate, economic growth is reported as very low. A high variation in exchange also indicates the high macroeconomic instability that leads to low productivity. This is period of high macroeconomic instability accompanied by high current account deficit, high inflation, and high exchange rate but with low economic growth. As the variability in exchange rate gets minimized, economic growth increases.

Another major indicator of macroeconomic stability is the trade openness. Increase in trade openness induces more FDI in a country that has positive impact on economic growth. Here we construct macroeconomic stability index taking policy variables such as budget deficit as a percentage of GDP, inflation, exchange rate variability and trade openness using principal component analysis using data from 1975 to 2015. We consider the first principal component (PC1) because it has highest Eigen value. Macroeconomic stability index is constructed from the following equation

*MSI= 0.602 * Inflation + 0.610 * trade openness + 0.424 * Exchange rate variability – 0.300 * fiscal deficit …… (1)*

MSI is shown in figure 3. This figure reveals that macroeconomic instability is high in 1970s due to many reasons such as war with India,

depreciation of currency, high inflation, nationalization policy, fragile law and order situation and political instability. In 1980s, there is a stable macroeconomic environment and then again there is instability in 1990s due privatization and deregulation policy, nuclear detonation, high inflation, political instability, and high fiscal deficit.

It improved in early 2000s due to low and stable inflation together with low budget deficit, it arises again between 2008-2011 due to increase in food and oil price that had persistent pressure on inflation along with global financial crisis, high fiscal deficit, exchange rate variations and dreadful law and order situation. Macroeconomic stability index indicates the improvement after 2013 due to decrease in oil price which has negative impact on inflation, political stability, improvement in law and order situation and stability in exchange rate. If these conditions prevail, then macroeconomic environment gets stabilize that would have positive impact on investment and economic growth.

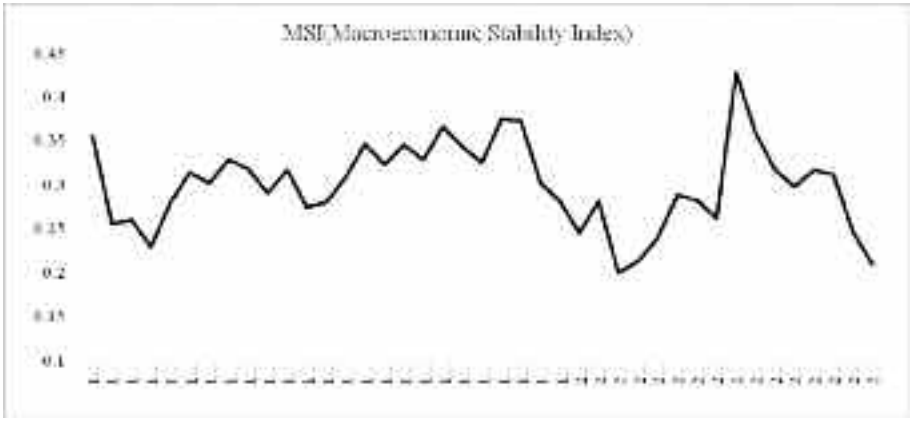

Figure 3. Macroeconomic Stability Index (MSI)

If there is a macroeconomic stability characterized with low and stable inflation, less exchange rate variation, less fiscal deficit, and high trade openness, then FDI on the part of CPEC and from other countries will economic prosperity through capital accumulation and increase in productivity.

Overview of Absorptive Capacity of Pakistan

It is deemed important that absorptive capacity of the host country can have large impact on volume of FDI. Absorptive capacity consists of adequate human capital, financial market, infrastructure, and institutions (Bengoa & Sanchez-Robles, 2003). For instance, the host country ability to absorb and make effective use of FDI increases as the human capital

increases (Benhabib & Spiegal, 1994). Lack of sufficient infrastructure, institutions and financial market are other bottlenecks in the inflow of FDI in Pakistan. Similarly, FDI can foster economic growth in host country through spillover effects of inflows of FDI conditioned on the provision of the minimum absorptive capacity. Simply, we can say that FDI spurs economic growth when business environment is compatible. We consider three measures of absorptive capacity such as human capital, bank credit to private sector as a percentage of GDP and public infrastructure. For human capital development, gross secondary school enrollment ratio has been used and for infrastructure, high roads as percentage of total roads have been used. Over the time, gross secondary school enrollment increases. It was 18% in 1975, 27% in 2005 and improved to 41% in 2015.

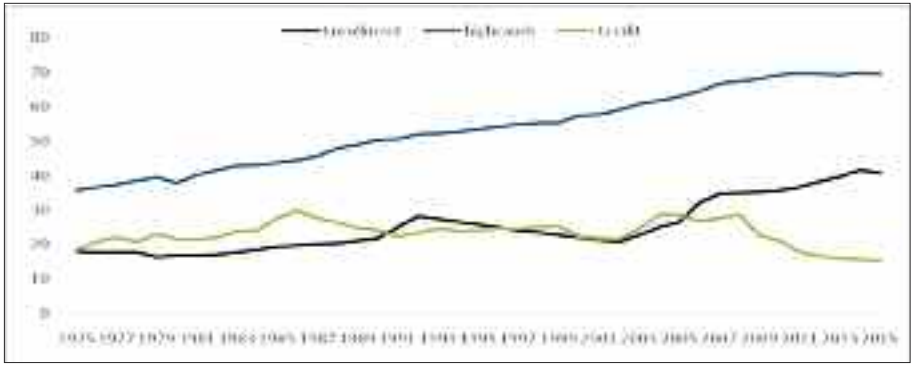

Figure 4. Secondary School Enrollment, Highroads to Total Roads and Credit to Private Sector

Similarly, high roads as a percentage of total roads have improved over the time. In 2005, high roads were 63% of total roads and these are improved to 70 percent in 2015. For instance, there exists instability in domestic credit to private sectors by banks as percentage of GDP to boost private investment. Trend of these indicators of absorptive capacity is shown in figure 4. This shows the improvement in high roads to total and gross secondary school enrollment but there exist a fluctuation in the credit to private sector.

We develop absorptive capacity index using principal component analysis over the time 1971 to 2015. We construct absorptive capacity index as

$$ACI = 0.682 * \text{secondary school enrollment ratio} + 0.648 * \frac{\text{high roads}}{\text{total}} - 0.340 * \text{Domestic credit to private sector} \ldots\ldots (2)$$

Absorptive capacity index (ACI) is reported in figure 5. ACI is stagnant in 1970s and but it increased in 1980s.

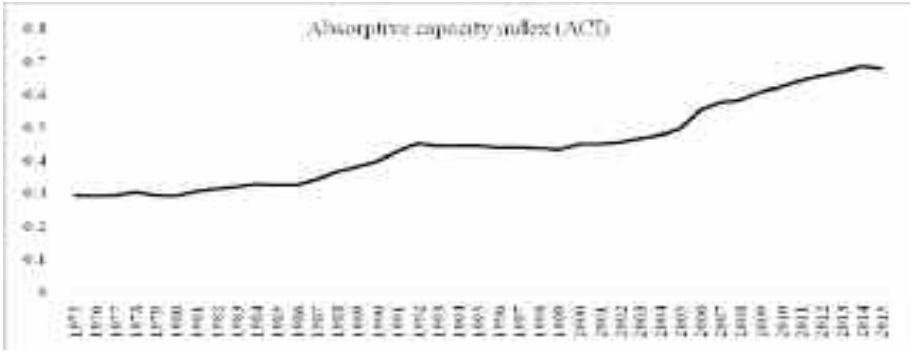

Figure 5. Absorptive Capacity Index (ACI)

Due to high political instability, deregulation and privatization of financial sector and less expenditures on education and less enrollment ratio etc. in 1990s ACI is stagnant and constant. However, it shows improvement in 2000s due to infrastructure development, financial development, and human capital development. ACI lies between 0 and 1 i.e. It has started from 0.3 and reaches at 0.7 that indicates the improvement in social or adsorptive capacity of Pakistan that is essential for FDI to boost economic growth.

Institutions and Terrorism

It is worth mentioning that democracy can attract FDI because it reduces the risk of policy reversal and strengthens property right along with less government intervention. Proponents of democracy argue that autocracy does not increase rule of law even deteriorates it. Hence democracy provides rule of law, protection of property rights, freedom of choice and speech which reduce risk of expropriation of FDI. For instance, the study of Iqbal and Daly (2014) show that the control of corruption has positive impact on growth provided the establishment of strong democratic institutions.

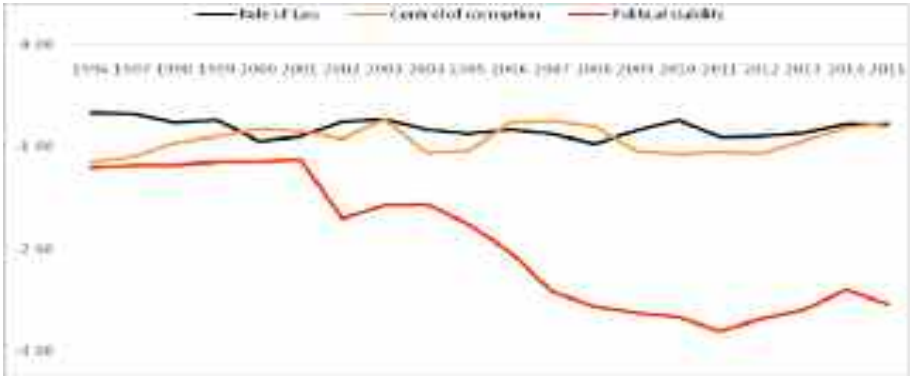

Figure 6. Institutions and Terrorism

However, Pakistan has weak institutions and weak democracy. After the continuous electoral process, government is trying to attract FDI in infrastructure, energy sector and industrial sector. We can show the behavior of democratic institutions since 1975 using polity 2 score which is collected from Polity IV database compiled by Marshall et al., 2017. Polity 2 score lies between -10 (full autocracy) and +10 (complete democracy). However, to paint the clear picture of quality of institutions, we use rule of law, control of corruption and political instability as the indicators of institution. These three measures range between -2.5 (weak performance) and 2.5 (strong performance). It is presented in figure 6. It shows that all three indicators of quality of institution is declining over the time. All three variables reported neagative signs which indicates the weak rule of law, less control of corruption and less political stability from 1996 to 2015. This means that unfortunitely democratic government and non-democratic government could not establish the sound institutions.

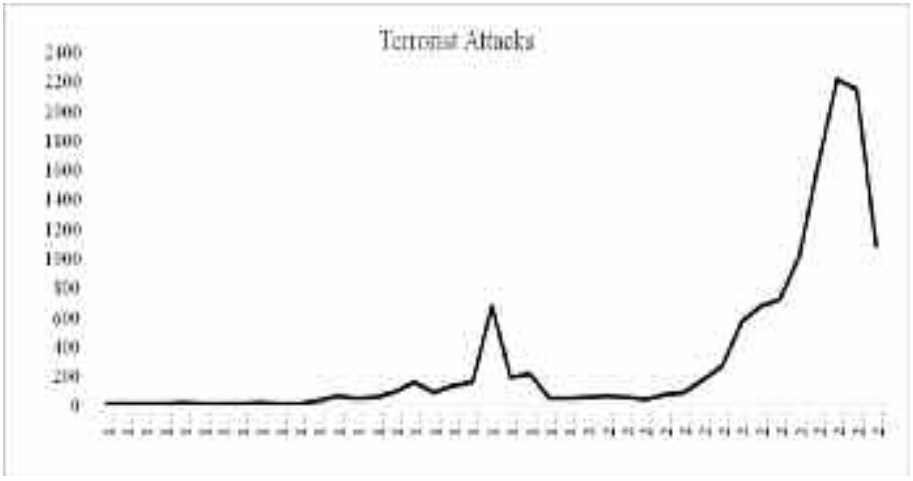

Figure 7. Terrorist Attacks

But story does not end here. Despite the weak democratic institutions, Pakistan is facing the problem of domestic terrorism since establishing of Pakistan. It is adversely affecting investment, infrastructure, productivity, trade, growth, and development. The study of Abadie and Gardeazabal (2008) mentions that after 9/11 FDI as percentage of gross fixed capital formation dropped to 1.5 percent of GDP in 2003 from 15.1% along with increased recorded net outflow of FDI 7.2% in 2000 to 7.5% in 2003. These facts clearly indicate that terrorism not only decreases FDI inflows but also increase FDI outflow. We can see clearly the situation of terrorist attack in Pakistan since 1975 in figure 7.

This reveals that terrorism incidents are very low in 1970s and 1980s but it rose up in late 1980s and 1990s due to internal political instability. However, terrorist attacks decreased in 2000s, then there is a continuous increase in terrorism from 2003 to 2014 but there is noticeable reduction in terrorist to 1081 in 2015 from 2146. This indicates that Pakistan has taken effective measures to mitigate terrorism and these policies are now working and resulting in substantial decrease in attacks.

However, if we compare the number of terrorists attacks occurred over the time with net FDI inflows (US$), then we find that FDI inflows and terrorist attacks have same trend. There exists a positive relationship between net FDI inflows and terrorists attacks due to increase in aid to mitigate terrorism from country. Increase in aid also attracts FDI that has positive impact on other economic variables.

RESEARCH METHODOLOGY AND DATA

Multinational corporations make investment in those countries where net return on capital is high subject to various conditions such macroeconomic stability, adsorptive capacity, political stability and less internal conflicts (Hermes and Lensink, 2003; Durham, 2004; Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004; Khan, 2012). Therefore, they establish their business in host country just to maximize profit. Therefore, recipient country takes the benefit of inward FDI to foster economic growth.

In this study, we consider nominal exchange rate, inflation, trade openness and fiscal deficit as a measure of macroeconomic stability to examine their impact on net inwarded FDI in US$. However, we also take GDP per capita growth rate as an additional variable in basic equation. Adsorptive capacity is captured with gross secondary school enrollment as a measure of human capital, high roads as a percent of total roads are used as measure of infrastructure and domestic credit to private sector by banks as a percent of GDP is used as a measure of financial development. Moreover, we also examine the impact of democratic institution as measure of democracy and terrorism on FDI and equation is specify as

$$InFDI_t = \alpha_0 + \alpha_1 Macro\ Stability_t + \alpha_2 Absorptive\ Capacitt + \alpha_3 Democratic\ Insitutions_t + \alpha_4 Terrorism_t + \alpha_5 GDPp_t + u_t \quad \ldots\ldots (3)$$

Where t is time subscript t=1,2, 3,…,1, lnFDI is the natural logarithm of FDI, macro stability indicates the variables mentioned above, GDPp is gross domestic product per capita growth rate and u is stochastic term which is white noise.

There exist the problems of endogeneity and reverse causality between FDI and other explanatory variables in equation (3). To address these problems, Generalized Method of Moment (GMM) technique of Hansen (2001), Arellano & Bond (1991) and Arellano & Bover (1995) is used.

We use annual data from 1975 to 2015. Data of net FDI in US$, nominal exchange rate, trade openness measure as export plus import as a percent of GDP, GDP per capita growth rate, and domestic credit to private sector by banks as percent of GDP are retrieved from the World Development Indicators (WDI). Data of fiscal deficit and high roads to total roads are taken from various issues of economic survey of Pakistan. Polity score is used as a measure of democratic institutions/political instability as we explained in previous section. Terrorist attacks are used as a measure of terrorism and data is taken from Global Terrorism Database (GST) which is compiled by National Consortium for the study of Terrorism and Responses to Terrorism. The data for the year 1993 is not available; therefore, we take average of last two years values to get value of 1993. Descriptive statistics of the variables are given in table 2.

Table 2. Descriptive Statistics

	Mean	Max	Min.	Std. Dev.	Obs.
FDI as a percent of GDP	0.831	3.668	0.062	0.827	41
GDP per capita Growth	2.198	6.692	-1.454	1.851	41
Fiscal deficit	-6.005	-1.952	-9.573	1.968	41
Nominal exchange rate	42.045	102.769	9.900	30.089	41
Inflation	8.659	20.905	2.540	4.134	41
Trade Openness	33.581	38.909	27.720	2.897	41
Exchange rate Variability	6.041	19.671	-3.558	6.071	41
Domestic credit to private sector	23.301	29.786	15.363	3.617	41
Secondary school enrollment gross	25.335	41.638	16.505	7.530	41
High roads/Total roads*100	53.747	69.807	35.892	11.027	41
Absorptive capacity index	0.448	0.682	0.289	0.123	41
Macroeconomic stability Index (MSI)	0.300	0.427	0.199	0.492	41
Polity2	1.024	8.000	-7.000	6.597	41
Terrorist attacks	310.512	2214.000	1.000	558.040	41

Source: Author's own calculations

RESULTS AND DISCUSSION

We estimate the above regression equation using Generalized Method of Moment (GMM) of Arellano and Bover (1995) due the problem of endogeneity and reverse causality problems. We use the lagged values of variables as instruments for endogenous variables. We investigate the

impact of Macroeconomic Stability Index (MSI), Absorptive Capacity Index (ACI) and democracy on FDI using 2SLS and GMM. Results are reported in table 3. The table also shows that GDP per capita growth rate has positive and statistically significant impact on inward FDI in Pakistan. Hence, GDP per capita growth induces FDI and this implies that increase in GDP per capita growth rate also increases FDI inflows in Pakistan. These findings are consistent with previous literature.

Table 2 indicates that macroeconomic stability index has positive and significant impact on inward FDI. This implies that macroeconomic stability restore the confidence of foreign investor, hence FDI increases. This implies that macroeconomic stability reflects less risk and uncertainty which are preferable for investors to invest their capital. Absorptive capacity index has positive and statistically significant effect on FDI. If there is adequate human capital, road infrastructure and financial development, then foreign investors bring capital to earn returns. Coefficients of democratic institution and economic growth are positive and significant, respectively. However, terrorist attacks negatively and significantly impact FDI in Pakistan. One percent increase in terrorist attacks decreases FDI by 0.073 percent, respectively.

Table 3. Socioeconomic Variables and FDI

	2SLS	GMM
MSI	0.196**	0.056**
	(0.014)	(0.031)
ACI	0.082*	0.052**
	(0.001)	(0.047)
log (Terrorist Attacks)	-0.488**	-0.173
	(0.015)	(0.046)
Polity 2	0.174*	0.008**
	(0.016)	(0.011)
Growth rate	0.127***	0.047***
	(0.104)	(0.072)
Constant	8.004*	15.565*
	(0.003)	(0.000)
R2	0.760	0.910
DW	1.273	1.950
J-stat	0.183	0.826

, ** and * indicate the level of significance at 1%, 5% and 10%. Source: Authors own estimation.*

CONCLUSION

In this study, we explored the socioeconomic determinants of FDI for Pakistan. Due to endogeneity problem, Generalized Method of Moment and second stage least square techniques are used for robustness and consistency of results. Interestingly, terrorists' attack has negative and statistically significant impact on FDI because it increases the investment risk without potential increase in returns on investment. Macroeconomic stability index (MSI), Absorptive index (ACI) and GDP per capita growth rate has positive and statistically significant impact on FDI. We infer the policy implication from this empirical analysis that government of Pakistan should take measures to overcome the terrorist attacks in Pakistan to attract FDI inflows to enhance economic growth. Although Pakistan's government has launched a big military operation against terrorism, but more steps should be taken to create environment conducive for domestic and foreign investment. Moreover, Government should take policy measures to mitigate the root causes to terrorism like income inequality, less enrollment in schools, unemployment, and poverty.

REFERENCES

Abadiea, A., & Gardeazabal, J. (2008). Terrorism and the world economy. *European Economic Review, 52*, 1–27.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and Economic Growth:The Role of Local Financial Markets. *Journal of International Economics, 64* (1), 89-112.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics, 68,* 29-51.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58* (2), 277-297.

Asiedu, E. (2002). On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different? *World Developmen*, *30* (1), 107-119.

Bakar, A. N., Mat, S. H., & Harun, M. (2012). The impact of Infrastructure on Foreign Direct Investment: The Case of Malaysia. *Procedia Social and Behavioral Sciences*, *65*, 205-211.

Bengoa, M., & Sanchez-Robles, B. (2003). Foreign Direct Investment, Economic Freedom and Growth: New Evidence from Latin America. *European Journal of Political Economy*, *19*, 529-545.

Benhabib, J., & Spiegel, M. M. (1994). The Role of Human Capital in Economic Development Evidence from Aggregate Cross-country Data. *Journal of Monetary Economics*, *34* (2), 143-173.

Buckley, P. J., Clegg, J., & Wang, C. (2002). The Impact of Inward FDI on the Performance of Chinese Manufacturing Firms. *Journal of International Business Studies*, *33* (4), 637-655.

Busse, M., & Hefeker, C. (2007). Political Risk, Institutions and Foreign Direct Investment. *European Journal of Political Economy*, *23* (2), 397-415.

Durham, J. B. (2004). Absorptive Capacity and the Effects of Foreign Direct Investment and Foreign Direct Investment. *European Economic Review*, *48* (2), 285-306.

Hansen, L. P. (2001). Generalized Method of Moments Estimation: A Time Series Perspective. *International Encyclopedia of Social and Behavioral Sciences*.

Hermes, N., & Lensink, R. (2003). Foreign Direct Investment, Financial Development and Economic Growth. *Journal of Development Studies*, *40* (1), 142-163.

Iqbal, N., & Daly, V. (2014). Rent seeking opportunities and economic growth in transitional economies, 37(C), 1. *Economic Modelling, 37*, 16-22.

Khan, M. A. (2012). *Foreign Direct Investment in Pakistan: The Role of International Political Relations* . TMD Working Paper Series No. 039.

Mangla, I. U., & Din, M. (2015). The Impact of the Macroeconomic Evironment on Pakistan's Manufacturing Sector. *The Lahore Journal of Economics*, *20*, 241-260.

Marshall, M. G., Gurr, T. R., & Jaggers, K. (2017). *Polity IV Project: Dataset Users' Manual v2016. Political Regime Characteristics and Transitions, 1800-2016.* Center for Systemic Peace and Societal-Systems Research Inc. Center for Systemic Peace.

Pakistan, G. o. (2015-2016). *Pakistan Economic Survey.* Ministry of Finance. Islamabad: Finance Division Government of Pakistan.

Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from Developed and Developing Countries. *Financial Innovation, 5* (1), 1-20.

Shahbaz, M. (2013). Linkages between Inflation, Economic Growth and Terrorism in Pakistan. *Economic Modeling*, *32*, 496-506.

Shahbaz, M., & Shabbir, M. S. (2012). Military Spending and Economic Growth in Pakistan: New Evidence from Rolling Window Approach. *Ekonomska istraz˘ivanja,*, *25* (1), 144-159.

Shahbaz, M., Shabbir, M. S., Malik, M. N., & Wolter, M. E. (2013). An Analysis of a Causal Relationship Between Economic Growth and Terrorism in Pakistan. *Economic Modeling*, *35*, 21-29.

Shahzad, S. J., Zakaria, M., Rehman, M. U., Ahmed, T., & Fida, A. B. (2015). Relationship Between FDI, Terrorism and Economic Growth in Pakistan: Pre and Post 9/11 Analysis. *Social indicators Research, 127* (1), 179-194.

Yu, J., & Walsh, J. P. (2010). *Determinants of Foreign Direct Investment: A Sectoral and Institutional Approach.* IMF Working Paper, WP/10/187. Washington, D.C.: International Monetary Fund 2010.

Zaidi, S. A. (2005). *Issues in Pakistan's Economy A Political Economy Perspective.* Oxford: Oxford University Press.