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The impacts of political stability, inflation and selective macroeconomic variables on foreign direct investment in Afghanistan: an investigation of political risk

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Abstract: Afghanistan besides of some suitable economic growth is still in political instability and has been faced with fragility and high fluctuations. In this study, multiple regression models based on secondary data analysis are used for Afghanistan through the period 1999-2019. The results show that the effect of inflation rate on attracting of Foreign Direct Investment (FDI) in Afghanistan are negative and significant. Also, the economic growth has positive effects on FDI but it is insignificant in this country. Furthermore, important results of this study imply that balance of payment, trade balance play positive role on FDI toward Afghanistan. There are positive effects of exports on FDI which is not significant whereas imports have negative impact on FDI which is significant at one percent level of significance. In addition, government should support balance of payment, trade balance to become positive for Afghanistan. Therefore, political stability has positive relation with FDI however it is not significant, Hence, there has been never preferred political stability for the attracting of FDI toward Afghanistan the finding of the study indicates that a high inflation is sign of political instability which has negative significant effect on FDI in Afghanistan. For sustainable Economic Growth of Afghanistan Preferred Political situation and low inflation are essential to attract Foreign Direct Investment towards Afghanistan.

Keywords: Foreign Direct Investment, Political Stability, inflation, Macroeconomic Variables, Afghanistan.

Introduction

Afghanistan is land-linked country; most of its population is engaged in Agriculture. Afghan people are poor; more than third part of Afghans population lives in extreme poverty. Their lower savings without new investment closes the vicious circle of poverty, that poverty and conflicts increased instability scares away new investments and increases the risk of falling into another vicious circle of political instability.

Unfortunately, our beloved Afghanistan in these recent decades faces with a long proxy war and is still in a political instability. One of the causes is instability in Afghanistan that no Multi National Enterprises (MNEs) are interesting to come to our country for Foreign Direct Investment (FDI). As I read different articles there are studies in developing countries suggested that, for Policymakers it is essential to reform institutions and create viable mechanisms conducive to long run price stability. In addition, inflation stabilization is temporarily effective if they do not include serious fiscal and political reforms. Their results also showed that reforms aimed at reducing political instability and increasing economic freedom and democracy are helping in economic development.

Jensen (2008) also found that democratic regimes reduce risks for multinational investors, specifically through increasing constraints on the executive. Utilizing qualitative evidence from investors, insurers, and location consultants, he explored the mechanisms linking democratic regimes with lower levels of political risk. Means the undemocratic government which many times political instability is tied with for increases political risk for Foreign Direct Investment (FDI). His Idea also important for all Islamic countries to work for democratic constitutions and transparent mechanisms of governing to prevent from inflation and attract Foreign Direct Investment (FDI) to their countries.

Huwaida (2020) a major problem is leadership in Afghanistan, in the history of Afghanistan all leaders worked for their benefits, political instability in Afghanistan owes much of its cause to internal factors. Therefore, geo-political and economic interests of the international and regional community constantly play a determining role in undermining the processes of social development in Afghanistan.

Thier and Worden (2017) Afghanistan is now in situation where we have weak government and terroristic intelligence backed, malicia groups they are doing war against government. These make the investment climate very restricted. They find impediment against trade. The neighborhood take benefit from the imposed conditions on country. Weak institutions and bad governance are the main causes of different conflicts including the political one in the country that not only has paved the way for the external interferences in the country but also has made the Afghan government to be dependent on the foreign powers.

Main purpose of this study is to understand the role of Political stability, and its effects on FDI and selective macroeconomic variables, foreign direct investment, balance of payment, imports, exports, inflation rate, GDP growth rate for economic improvement of Afghanistan. The Data of period 1999-2019 are tested and better recommendations are given to policies makers of Afghanistan.

There is a renewed interest in how political risk affects multinational corporations operating in emerging markets. Much of this research has focused on the relationship between democratic institutions and flows of foreign direct investment. Yet the existing studies suffer from data problems that only allow for indirect evidence of the relationship between political institutions and political risk.

In the last years Afghanistan experienced election for presidency, but it is like election for taking leadership of a mafia zone; besides corruption the local influential people use their power for their private benefits which are preventing reform in public institution and a democratic system. Afghanistan After the Intervention of US and international community still remain in undetermined political stability.

As political instability increases, inflation increases and in many cases political instability increases prevent from FDI in a country; discussed as political risk and study continued on how the researcher design researches for investigation of political risk, which results they get from their estimations. Multiple regression models are tested; results are reported in the tables an empirical analysis is done. Study finished with conclusion which concluded about the terms which are exist in title of the study.

Theoretical background

Afolabi and Abu Bakar (2016) studied causal link between trade political instability, Foreign Direct Investment and economic growth in Nigeria. They discovered bi-directional causality between FDI inflow and economic growth (GDP); however, there was one –way direction between political instability and FDI, between political instability and GDP. Moreover, there was also one –way relationship between FDI and volume of trade within the period of study.

Jensen (2008) utilized price data from political risk insurance agencies to directly test how domestic political institutions affect the premiums multinationals pay for coverage against government expropriations and contract disputes. He found that democratic regimes reduce risks for multinational investors, specifically through increasing constraints on the executive. He used simple model only includes variables that are theoretically related to specific type of political risk. His control variables include the level of development and economic growth (Growth). He also included regional dummy variables for Western Europe, Latin America, Sub-Saharan Africa, North Africa and the Middle East, Eastern Europe and the Former Soviet Union, Asia, and Oceania. For estimating the impact of democracy and political risk pricing categories he estimated the following ordered probit model:

$$\text{Risk} = \alpha + \beta 1\, Democracy + \beta 2\, GDPPC + \beta 3\, Growt\square + \beta 4\, Europe + \beta 5\, Latin\ America + \beta 6\, SSAfrica + \beta 7\, NAfrica + \beta 8 \frac{EE}{FSU} + \beta 9\, Asia + \beta 10\, Oceania + ei \ldots\ldots\ldots\ldots (1)$$

Khan and Saqib (2011) investigated the effects of political instability on inflation in Pakistan. By applying the Generalized Method of Moments technique using data from 1951 to 2007, they examined link through two different models. The results of the 'monetary' model suggested that the effects of monetary determinants are rather marginal and that they depend upon the political environment of Pakistan. The 'nonmonetary' model's findings explicitly established a positive association between political instability and inflation. Further confirmed through analysis based on interactive dummies that reveal political instability significantly leading to high (above average) inflation.

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Ari and Veiga (2006) asked question in their study, Does Political Instability Lead to Higher Inflation? Based on a dataset covering around 100 countries for the period 1960-99 and using modern panel data econometric techniques. Research design objective was to investigate the main political, institutional, and economic determinants of inflation across countries and time. This is done estimating dynamic panel data models for annual inflation levels. They hypothesize that it depends on the contemporaneous values of explanatory variables that they incorporated in their study.

Bayat and Askari (2015) showed important results of their study that government guaranties play significant role in inflows of Foreign Direct Investment toward Afghanistan regarding to existing of security and financial risks in this country. Therefore, the intervention and supporting of Afghan government to avoid risk is necessary. decision making in direction of FDI towards agriculture, industry and mining sectors in Afghanistan is suggested. They estimated the following model (2).

$$FDI = f(INF.TAX.OPEN.SUB.GRE.F) \dots\dots\dots\dots (2)$$

Shahzad and Al-Swidi (2013) strongly suggested in their study that political stability is crucial for the country's domestic and foreign investment expansion in the future course of direction. the following research framework is devised to tracing the impact of various types of selective Macroeconomic variables and Business environment variables to attract Foreign Direct Investment in Pakistan linking with moderating role of political stability during 1991–2011. They used the following research framework.

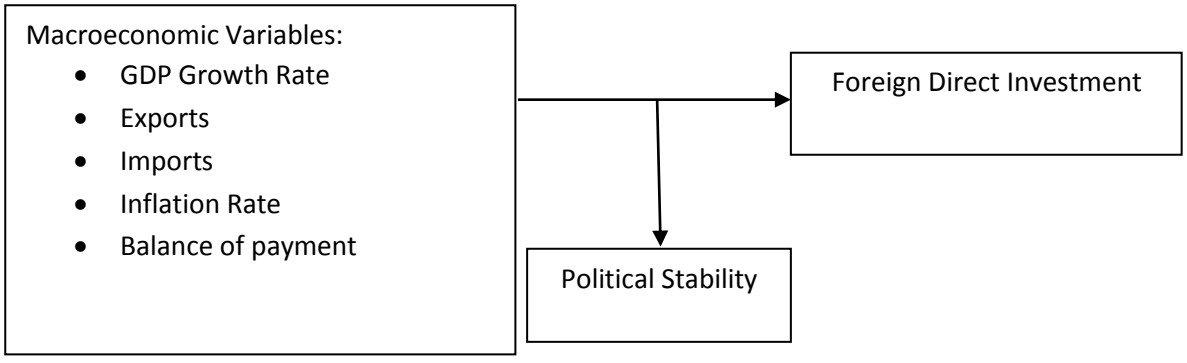

Figure 1. Research framework

Data and Methodology

The following variables have been incorporated in the empirical investigation process of the study. Foreign Direct Investment (in Millions), Exports of Goods and Services (in Millions), Imports of Goods and Services (in Millions), and Balance of Payments, Trade Balance (in Millions). Time series data of mentioned variables was taken from Statistical, Economic and Social Research and Training Center for Islamic Countries (SESRICS) website.

Inflation rate, average consumer prices (Annual percent change) is taken from IMF. And GDP growth (annual %) and Political Stability and Absence of Violence/Terrorism taken from WDI. The index of Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. The index is an average of several other indexes from the Economist Intelligence Unit, the World Economic Forum, and the Political Risk Services, among others.

Unit root tests for stationary of variables

This study used Augmented Dickey-Fuller (ADF) for examining of the stationary of variables. The Stationary Data refers to the test whether the mean, variance and covariance remain constant over the time or not. For more elaboration the following regression is shown:

$$\Delta Y_t = \beta_1 + \beta_2\, t + \delta\, Y_{t-1} + \alpha_i \sum_{i=1}^{m} \beta_i\, \Delta Y_{t-i} + \varepsilon_t \dots\dots\dots (3)$$

Where ε_t is a pure white noise error term and where $\Delta Y_{t-1} = (\Delta Y_{t-1} - \Delta Y_{t-2})$. $\Delta Y_{t-2} = (\Delta Y_{t-2} - \Delta Y_{t-3})$. etc. the number of lagged difference terms to include is often determined empirically, the idea being to include enough terms so that the error term in equation (1) is serially uncorrelated. So that we can obtain an unbiased estimate of δ , the coefficient of lagged Y_{t-1}.

Multivariate Regression Models

The following models are tested and the results are reported in the tables.

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$$FDI = \alpha_0 + \beta_1 GDPGR + \beta_2 EXPS + \beta_3 IMP + \beta_4 INFR + \beta_5 BOP + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots (4)$$

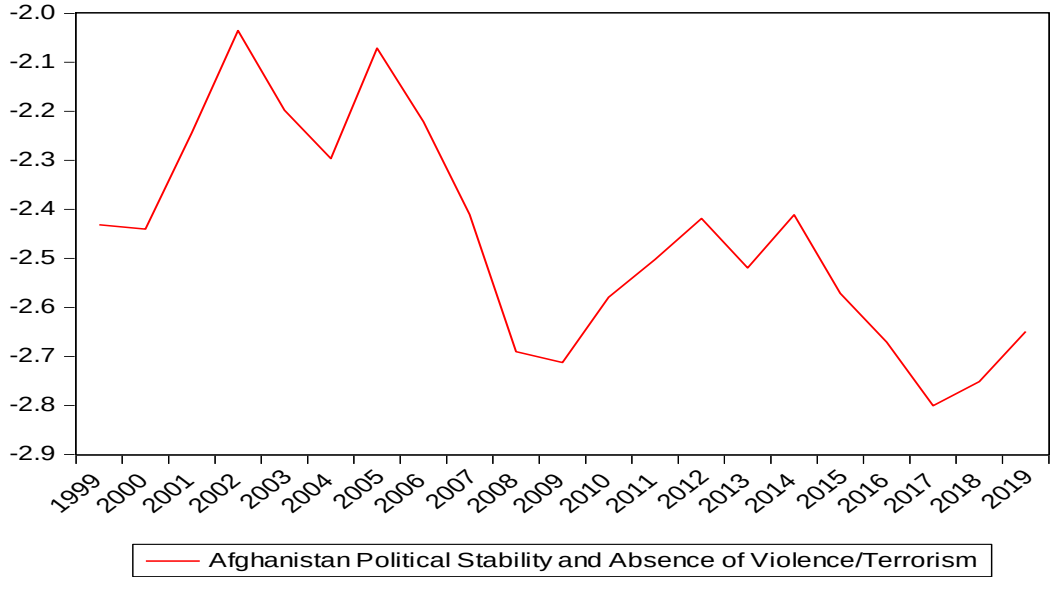
$$FDI = \alpha_0 + \beta_1 GDPGR + \beta_2 EXPS + \beta_3 IMP + \beta_4 INFR + \beta_5 BOP + \beta_5 PSI + \varepsilon \dots\dots\dots (5)$$

$$FDI = \alpha_0 + \beta_1 GDPGR + \beta_2 EXPS + \beta_3 IM + \beta_4 INFR + \beta_5 BOP + \beta_6 PSI + \beta_7 PSI * GDPGR + \beta_8 PSI * EXPS + \beta_9 PSI * IMP + \beta_{10} PSI * INFR + \beta_{11} PSI * BOP + \varepsilon \dots\dots\dots (6)$$

Empirical evidence

The average value for Afghanistan during that period was -2.46 points with a minimum of -2.8 points in 2017 and a maximum of -2.04 points in 2002. The latest value from 2019 is -2.649407 points. For comparison, the world average in 2018 based on 195 countries is -0.05 points.

Graph 1. Political stability index (-2.5 weak; 2.5 strong): data for Afghanistan from 1999 to 2019.



The Units Root Tests (ADF Test) result is presented in Table 1 and only GDP Growth variable is stationary at level at 5% level of significance all the variables are stationary at first difference processes at 10%, 5% and 1% level of significance, as all t-statistics are greater than critical values that Indicates they are considered as I (1).

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Table 1. Augmented Dickey-Fuller unit root tests results.

Issue	Variable	Level	1st diff.	2nd diff.
1	FDI	-2.418409	-5.630882	-5.05538
		(0.3600)	(0.0012)*	(0.0046)**
2	GDP Growth	-4.216801	-4.740575	-3.124205
		(0.0219)**	(0.0110)**	(0.1493)
3	Exports	-2.664159	-4.675583	-5.813998
		(0.2594)	(0.0076)*	(0.0012)*
4	Imports	-0.682538	-3.702094	-7.020225
		(0.9604)	(0.0475)*	(0.0001)*
5	Inflation Rate	-4.605228	-6.578031	-6.453998
		(0.0112)	(0.0009)*	(0.0015)*
6	Balance of Payment	-1.269194	-3.656540	-5.904187
		(0.8660)	(0.0516)***	(0.0010)*
7	Political Stability	-2.537176	-3.460503	-5.519589
		(0.3088)	(0.0730)***	(0.0017)*

Note: *indicates variable is significance at 10%, ** indicates variable is significance at 5% and *** indicates variable is significance at 1% (critical-values are in parentheses).

The study used regression analysis to check the predictive power of the dependent variables in the models. GDP Growth rate (GDPGR), Exports (EXPS) coefficients are positive signs meaning that GDP Growth rate (GDPGR), Exports (EXPS) has positive relation with Foreign Direct Investment (FDI) but they are not significant. Imports (IMP) coefficient is negative sign meaning that Imports (IMP) has a negative relation with Foreign Direct Investment which is significant at 1% level of significance and also Inflation rate (INFR) coefficient is negative sign meaning that has negative relation with FDI and it is significant at 10% level of significance. Balance of payment (BOP) coefficient is positive signs meaning that Balance of payment (BOP) relation is Positive with Foreign Direct Investment.

Table 2. Model (4) estimation results.

Variables	Coefficient	T value	P value
C	464.7793	2.525336	0.0282**
GDPGR	1.533188	0.609357	0.5547
EXPS	0.009432	0.126278	0.9018

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IMP	-0.018597	-2.147399	0.0549***
INFR	-6.566989	-4.156369	0.0016*
BOP	0.069906	3.076674	0.0105**
Durbin-Watson stat		1.962127	
F-statistic		6.518938	0.004723**
R-squared		0.747676	
Adjusted R-squared		0.632983	

Note: *indicates variable is significance at 10%, ** indicates variable is significance at 5% and *** indicates variable is significance at 1%.

The results in Table 3 indicates that when Political stability dependent variable is added, if it moderate effect of the dependent variables on Foreign Direct Investment in Model (5), the result indicate Inflation rate (INFR) variable has negative significant relation with the FDI at 10% level of significance.

Table 3. Model 4, 5 and 6 estimation results.

Variables	Predictors	T value	Moderated	T value	Interactions	T value
C	464.7793	2.525336	571.2180	2.706772	3002.175	0.867130
		(0.0282)**		(0.0221)**		(0.4255)
GDPGR	1.533188	0.609357	-0.510598	-0.159186	8.516914	0.162474
		(0.5547)		(0.8767)		(0.8773)
EXPS	0.009432	0.126278	0.078883	0.782732	-0.634840	-0.320806
		(0.9018)		(0.4519)		(0.7613)
IMP	-0.018597	-2.147399	-0.013836	-1.409891	-0.055474	-0.248760
		(0.0549)		(0.1889)		(0.8134)
INFR	-6.566989	-4.156369	-6.636179	-4.205472	-30.15543	-0.783181
		(0.0016)*		**(0.0018)***		(0.4690)
BOP	0.069906	3.076674	0.034804	0.846718	0.436841	0.443176
		(0.0105)**		(0.4170)		(0.6762)
PSI			132.1353	1.023769	1052.796	0.768385
				(0.3301)		(0.4770)
PSI*GDPGR					2.699339	0.129200
						(0.9022)
PSI*EXPS					-0.262085	-0.328592
						(0.7558)

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PSI*IMP			-0.017103	-0.200473
				(0.8490)
PSI*INFR			-9.524561	-0.611551
				(0.5676)
PSI*BOP			0.149950	0.397678
				(0.7073)
Durbin-Watson stat	1.962127	1.975129		2.452688
F-statistic	6.518938	5.630888		2.121263
	(0.004723)*	(0.008568)*		(0.209799)
R-squared	0.747676	0.771613		0.823533
Adjusted R^2	0.632983	0.634581		0.435305

Note: *indicates variable is significance at 10%, ** indicates variable is significance at 5% and *** indicates variable is significance at 1% (critical-values are in parentheses).

Also following the method of Frazier, Tix, and Barron (2004), in Model (6), the interaction terms between political stability and the selective macroeconomic variables were examined to test the moderating effect, all the interaction terms between political stability and Macroeconomic variables; and interaction between political stability and GDP growth rate (PSI*GDPGR), interaction between political stability and exports (PSI*EXPS), interaction between political stability and Imports (PSI*IMP), interaction between political stability and Inflation rate (PSI*INFR) and interaction between political stability and Balance of payment (PSI*BOP) are insignificant. The R^2 in Model (5) is greater than Model (4) show that Model (5) is better fitted. R^2 of Model (6) is greater than Model (5) but Adjusted R^2 of Model (6) is smaller than adjusted R^2 of Model (5) because all the variables in model are not significant it seems like a spurious regression model

Models	Serial correlation, LM Test		Normality test	Heteroskedasticity test	
	Obs*R-squared	**F-statistic**	**Jarque-Bera**	**Obs*R-squared**	**F-statistic**
Model 4	3.533202	1.180638	0.892611	1.357256	0.190885
	(0.1709)	(0.3505)	(0.639988)	(0.9289)	(0.9598)

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Model 5	5.200874	1.763139	1.984106	1.943748	0.215165
	(0.0742)	(0.2321)	(0.370815)	(0.9248)	(0.9633)
Model 6	12.50765	4.176320	0.592398	7.864481	0.391304
	(0.0019)*	(0.1358)	(0.743639)	(0.7254)	(0.9096)

Table 4. Diagnostic tests.

Note: *indicates variable is significance at 10%(critical-values are in parentheses).

The results of diagnostic tests in above Table 4 is shown, all p-values are greater than 10% indicates that all models 4, 5 and 6 at 10% level of significance are free from Heteroskedasticity and their residuals are normally distributed. And Models 4 and 5 are free from serial correlation as all p-values are greater than 10% level of significance but Model 6 has serial correlation problem.

Conclusion

Based on Political stability index (-2.5 weak; 2.5 strong) data, it seems Political situation in the study has not been preferred for Foreign Direct Investment in Afghanistan. The average value for Afghanistan during that period was -2.46 points with a minimum of -2.8 points in 2017 and a maximum of -2.04 points in 2002. The latest value from 2019 is -2.649407 points.

GDP Growth rate (GDPGR), Exports (EXPS) has positive relation with Foreign Direct Investment (FDI) but they are not significant. And Balance of payment (BOP) relation is Positive with FDI. Afghanistan government should support balance of payment, trade balance to become positive for Afghanistan.

Imports (IMP) has a negative relation with Foreign Direct Investment which is significant at 1% level of significance and also Inflation rate (INFR) has negative relation with Foreign Direct Investment (FDI) and it is significant at 10% level of significance.

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In examining the moderating effects of political stability with microeconomic variables on Foreign Direct Investment (FDI), that when Political stability dependent variable is added in Model (5), if it moderate effect of the dependent variables on Foreign Direct Investment. The result indicates Inflation rate (INFR) variable has negative significant relation with the FDI at 10% level of significance.

The moderating effect, all the interaction terms between political stability and Macroeconomic variables; interaction between political stability and GDP growth rate (PSI*GDPGR), interaction between political stability and exports (PSI*EXPS), interaction between political stability and Imports (PSI*IMP), interaction between political stability and Inflation rate (PSI*INFR) and interaction between political stability and Balance of payment (PSI*BOP) are insignificant. All the variables in model are not significant, it seems like a spurious regression model and has serial correlation problem.

It is essential to reform institutions and create viable mechanisms essential to long run price stability. Furthermore, inflation stabilization efforts may be only temporarily effective if they do not include serious fiscal and political reforms. Controlling inflation is essential for achieving stability in a country. This would help allow country eventually address its ultimate objective of eliminating poverty. At the same time, low and stable inflation is a crucial societal insurance for the marginal segments in some countries.

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