

The Impact of Terrorism on Foreign Direct Investment in Jordan

Rabia Najaf*

Department of Accounting and Finance, University of Lahore, Islamabad Campus, Pakistan

Abstract

The main objective of this paper is to find out the long run relationship between terrorism and foreign direct investment of Jordan. For this purpose, we have taken the monthly data from 1996 to 2014. We have found that data are stationary at first difference. For the analysis of finding the long run association, we have applied the Johnson co integration approach. The results are showing that terrorism have negative relationship with the foreign direct investment. This study suggested that there is need of proper planning for the improvement of the foreign direct investment.

Keywords: Foreign direct investment; Cointegration; Jordan; Long run association

Introduction

From last few decades, it is very interesting topic to discuss that impact of terrorism on the foreign direct investment of all developing and under developing countries. The discussion about the decisiveness of foreign direct investment is the very burning topic for all researchers. For foreign direct investment has crucial role for the development of the poverty. Foreign direct investment is the best way to enhance the managerial skills and latest technology. All the emerging countries are formulating the latest policies for the better performance. According to William foreign direct investment is the basic element for the development of the economy. There is need of rigorous view to understand the importance of the foreign direct investment. Unfortunately, only few countries are getting benefit from the foreign direct investment [1-5]. Most of the scholars had worked out on this issues that why rate of foreign direct investment is moving towards decline position. According to different surveys, it is proved that Pakistan has the come at the low that due to terrorism activities the foreign direct investment is at very critical position. The terrorism activates are increasing day by day due to lack of security system. Since 2006, the ratio of terrorism actives are at the peak. Due to terrorism actives the economics of Pakistan is facing the problems like declines the productivity. According to poon the current position of the Jordan economy is going towards decline position. According to Akhtar after 1947 the inflows level of foreign direct investment is low in Jordan due to political instability. Our study is trying to show that terrorism has very worst impact on the economy of Jordan. The main reason of increasing the terrorism activists mismanagement of security. Foreign direct investment is known as the single way for the strength of the national markets [6-10]. Therefore, most of the emerging countries are keen about the increasing inflows level of foreign direct investment. In Jordan, there is not proper source to fulfill the gap between saving and investment. It is seen that foreign direct investment is the single tool through which any country can enhance the managerial skills. In 1980s, the inflows of foreign direct investment of Jordan were 17\$ billion. During the period of 2005, the growth rate was 2.5\$. Consequently, the foreign direct investment rate is going to decline due to poor policies [10-30].

Objective

- 1) The impact of terrorism on the foreign direct investment of Jordan.
- 2) The impact of terrorism on the foreign investors.

- 3) The impact of foreign direct investment on the welfare of the society.

Problem statement

The Impact of terrorism on the stock exchange of Jordan (Figure 1).

Literature Review

Abadie and Gardezabel analyzed the impact of terrorism on performance of the stock market of Pakistan. For this purpose, they were collected the data from 1998 to 2008 and applied the VAR model. Their results are showing that terrorism had negative influences on the stock market of Pakistan. They suggested that Government should have focused on such sort of terrorism activities [1].

Accam observed the impact of terrorism on performance of the stock market of India. For this purpose, they were collected the data from 1999 to 2010 and applied the ECM model. Their results are showing that terrorism had negative influences on the stock market of India. They suggested that Government should have focused on such sort of terrorism activities [2].

Agrawal and Ramaswami applied the impact of terrorism on performance of the stock market of Malaysia. For this purpose, they were collected the data from 1995 to 2005 and applied the OLS model. Their results are showing that terrorism had negative influences on the stock market of Malaysia. They suggested that Government should have focused on such sort of terrorism activities [3].

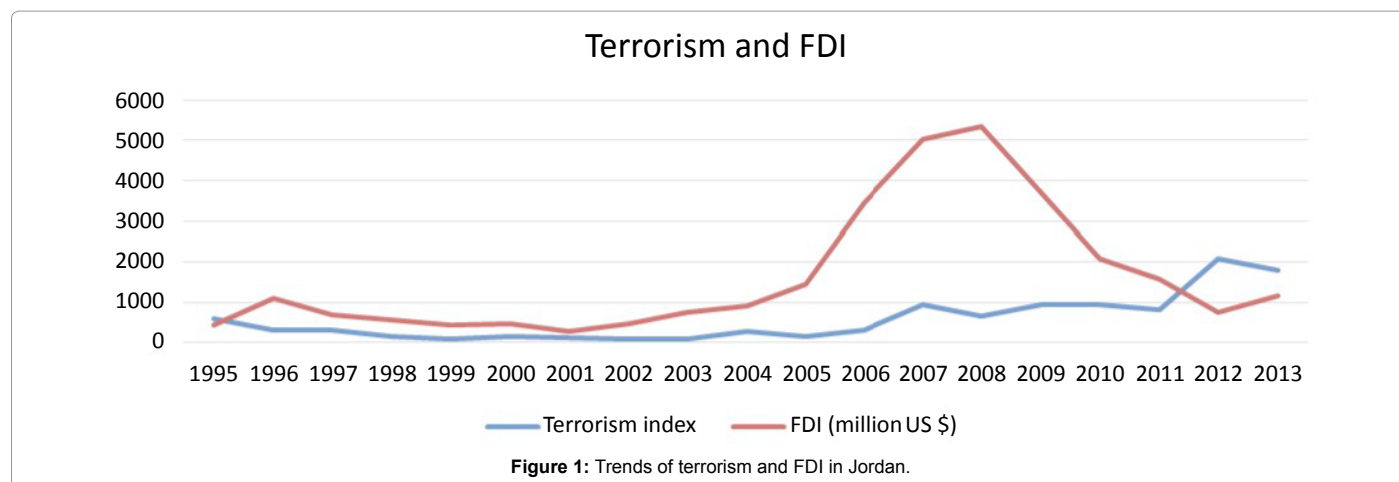
Agrawal analyzed the impact of terrorism on performance of the stock market of UK. For this purpose, they were collected the data from 1993 to 2001 and applied the ARDL model. Their results are showing that terrorism had negative influences on the stock market of UK. They suggested that Government should have focused on such sort of terrorism activities [4].

*Corresponding author: Najaf R, Department of Accounting and Finance, University of Lahore, Islamabad Campus, Pakistan, Tel: +92 (0)42111-865-865; E-mail: rabianajaf@hotmail.com

Received January 10, 2017; Accepted April 04, 2017; Published April 11, 2017

Citation: Najaf R (2017) The Impact of Terrorism on Foreign Direct Investment in Jordan. J Account Mark 6: 227. doi:10.4172/2168-9601.1000227

Copyright: © 2017 Najaf R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



Ali and Sharafat employed the impact of terrorism on performance of the stock market of USA. For this purpose, they were collected the data from 1986 to 2004 and applied the multiregression equation. Their results are showing that terrorism had negative influences on the stock market of USA. They suggested that Government should have focused on such sort of terrorism activities [5].

Asiedu and Freeman analyzed the impact of terrorism on performance of the stock market of France. For this purpose, they were collected the data from 1989 to 2009 and applied the ECM model. Their results are showing that terrorism had negative influences on the stock market of France. They suggested that Government should have focused on such sort of terrorism activities [6].

Bandera and White observed the impact of terrorism on performance of the stock market of France. For this purpose, they were collected the data from 1989 to 2009 and applied the ECM model. Their results are showing that terrorism had negative influences on the stock market of France. They suggested that Government should have focused on such sort of terrorism activities [7].

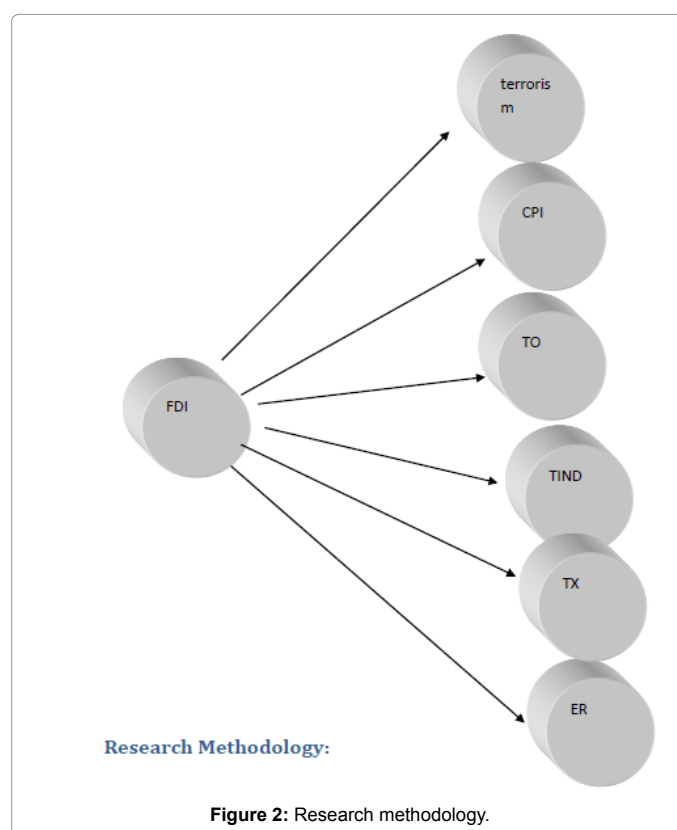
Belington viewed the impact of terrorism on performance of the stock market of Libya. For this purpose, they were collected the data from 1983 to 2001 and applied the unit root model. Their results are showing that terrorism had negative influences on the stock market of Libya. They suggested that Government should have focused on such sort of terrorism activities [8].

Bloomberg and Ashoka applied the impact of terrorism on performance of the stock market of Nigeria. For this purpose, they were collected the data from 1989 to 2009 and applied the ADRL model. Their results are showing that terrorism had negative influences on the stock market of Nigeria. They suggested that Government should have focused on such sort of terrorism activities [9].

Bloomberg et al. examined the impact of terrorism on performance of the stock market of China. For this purpose, they were collected the data from 1981 to 2005 and applied the VAR model. Their results are showing that terrorism had negative influences on the stock market of China. They suggested that Government should have focused on such sort of terrorism activities [10].

Theoretical framework

Research methodology was explained in Figure 2.



Research Methodology

Data

In this paper, analyzed that there is long run relationship between terrorism and foreign direct investment, for this purpose taken the data from 1996 to 2014 and applied the different tests. Foreign direct investment is the considered dependent variable and CPI, trade openness, exchange rate and terrorism (Tables 1-6).

Mathematically the relationship between the variables can be presented as follows

$$\text{LnFDI} = \beta_0 + \beta_1 \text{LnGDP} + \beta_2 \text{LnER} + \beta_3 \text{LnTX} + \beta_4 \text{LnCPI} + \beta_5 \text{LnTO} + \beta_6 \text{LnTIND} + \epsilon$$

	LNFDI	LNNGDP	LNLCPI	LNLER	LNTO	LNTX	TIND
LNFDI	1						
LNNGDP	0.1152	1					
LNLCPI	-0.1083	-0.1272	1				
LNLER	-0.2123	-0.1212	0.94018	1			
LNTO	-0.3739	0.24169	-0.6568	-0.4712	1		
LNTX	-0.0778	-0.3254	0.85238	0.7589	-0.7046	1	
TIND	0.04086	-0.1393	0.68658	0.46717	-0.7669	0.70274	1
Mean	-0.0008	0.02	0.0045	-0.0058	0.0014	-0.0024	5.6487
Maximum	0.3392	0.7968	0.0309	0.0234	0.1162	0.1762	7.6293
Minimum	-0.1896	-0.582	-0.0433	-0.0354	-0.0898	-0.2216	4.1097
Std. Dev.	0.0487	0.1023	0.008	0.0062	0.0195	0.0265	1.0187
Skewness	1.7055	2.4538	1.478	0.3715	0.8945	-2.5358	0.2188
Kurtosis	18.0377	33.2953	9.0028	8.5808	15.8577	45.9997	2.0284
Jorjue-Bera	1614.83	6396.95	304.002	215.266	1144.52	12732.4	7.7142

Table 1: Mathematically the relationship between the variables.

Variables	ADF test at level	PP test at first difference	At level	At first difference
LnFDI	-5.075038	-12.03272		
LnGDP	-2.3354	-5.57621	-2.519	-11.48708
LnCPI	-5.88733	-4.324997		
LnTX	-1.2266	-15.05503	-1.2262	-15.05505
LnTO	-5.48509	-12.03412		
LnER	-0.4587	-3.641328	-1.0127	-8.68566
LnTINDX	-5.354386	-12.00103		
At Critical Level				
1% level	-6.92204	-6.918331		
5% level	-2.8748	-2.874933	-2.8742	-2.874144
10% level	-5.148487	-5.147063		

Table 2: Mathematically the relationship between the variables.

	Eigenvalue	Trace statistic	0.05 Critical value	Prob.
None	0.1504	136.6	125.6155	0.0092
At most 1	0.13619	99.8538	95.75367	0.0254
At most 2	0.09214	66.918	69.81888	0.0834
At most 3	0.08046	45.1702	47.85612	0.0872
At most 4	0.06402	26.2992	29.79702	0.11
At most 5	0.04378	11.3973	15.49472	0.1883
At most 6	0.00587	1.3216	3.841467	0.2504

Table 3: Mathematically the relationship between the variables.

Variables	Coefficient	Standard error	t-Statistics
LnGDP	1.725829	0.40739	3.08872
LnCPI	-8.73469	3.12065	2.55353
LnTO	3.615505	1.43799	-2.51428
LnTX	-2.283366	2.73637	-0.83447
LnER	-9.131476	3.23279	-2.82566
LnTIND	1.775638	0.41443	-4.28462

Table 4: Mathematically the relationship between the variables.

Empirical Results and Conclusion

Table 1 is showing that there is positive association between GDP and FDI. There is found negative association between exchange rate and foreign direct investment. There is moderate correlation between trade openness and foreign direct investment. Our results are showing the tax and terrorism index are negatively correlated with foreign direct

investment. In this paper, the relationship is analyzed with the help of the co-integration. Our results are showing that data are stationary at level 1 at first difference. Then used Phillips-Perron test and found that there is weak dependency in all variables. The value of Schwarz criterion is showing that it is at lag2. There are found spurious results, so, OLS is not the best here, therefore we applied the co-integration. Different

	Obs.	F-Statistic	Prob.
RGDP does not Granger Cause RFDI	227	4.94924*	0.0078
RFDI does not Granger Cause RGDP	0.7898	0.4553	
RCPI does not Granger Cause RFDI	227	3.62107**	0.0285
RFDI does not Granger Cause RCPI		6.34972*	0.0022
RTO does not Granger Cause RFDI	227	1.62632	0.198
RFDI does not Granger Cause RTO	3.18838**	0.0432	
RTX does not Granger Cause RFDI	227	2.60786***	0.077
RFDI does not Granger Cause RTX		0.44477	0.6416
RER does not Granger Cause RFDI	227	0.34312	0.7098
RFDI does not Granger Cause RER	0.3114	0.7329	
RTIND does not Granger Cause RFDI	227	0.43669	0.6477
RFDI does not Granger Cause RIND		1.05449	0.3502

Source: author's calculations

Table 5: Mathematically the relationship between the variables.

	S.E.	LNFDI	LNGDP	LNCPI	LNTX	LNT0	LNER	LTIND
1	0.05849	100	0	0	0	0	0	0
2	0.09492	99.8654	0.00024	0.00267	0.04076	0.05743	0.0078	0.02598
3	0.13293	99.4409	0.00427	0.0317	0.11504	0.27219	0.01785	0.11827
4	0.16825	98.8788	0.00754	0.10208	0.17628	0.55467	0.02976	0.25102
5	0.20196	98.1387	0.01106	0.24035	0.23063	0.91547	0.03969	0.42424
6	0.23393	97.2639	0.0138	0.45777	0.27783	1.31885	0.04642	0.62166
7	0.26454	96.2518	0.01588	0.76768	0.31938	1.76044	0.04918	0.8357
8	0.29399	95.1169	0.0178	1.17452	0.35593	2.22992	0.04826	1.05696
9	0.3226	93.8636	0.01949	1.68024	0.38804	2.72456	0.04453	1.27967
10	0.35028	92.5008	0.02148	2.28198	0.41608	3.24162	0.03927	1.49869

Table 6: Mathematically the relationship between the variables.

researchers studied that there is positive impact of long run market size and foreign direct investment. Here, there has also found long run relationship between inflation and foreign direct investment. There is significant negative association between trade openness and foreign direct investment. It is proved that there is negative association between terrorism and foreign direct investment. This thing is showing that due to terrorism activates investors are feel fear to invest in Jordan. Table 5 is showing that there has found both unidirectional and bidirectional relationship. There is unidirectional relationship between FDI and GDP and bidirectional relationship between CPI and FDI. There is not found lead lag relationship between FDI, terrorism and exchange rate. Table 6 is showing that there is 99% volatility in FDI. The main variables are trade openness and terrorism, which has main role in the volatility of FDI.

References

- Abadie A, Gardeazabel J (2008) Terrorism and world economy. *European Economic Review* 52: 1-27.
- Accam B (1997) Survey of measurement of exchange rate instability. Mimeo.
- Agarwal S, Ramaswami S (1992) Choice of foreign entry mode: Impact of ownership, location and internalization factors. *Journal of International Business Studies* 23: 1-27.
- Agrawal S (2011) The impact of terrorism on foreign direct investment: which sectors are more vulnerable?
- Ali, Sharafat (2014) Inflation, income inequality and economic growth in Pakistan: A cointegration analysis. *International Journal of Economic Practices and Theories*.
- Asiedu E, Freeman J (2009) The Effect of corruption on investment growth: Evidence.
- Bandera VN, White JT (1968) US. Direct investments and domestic market in Europe. *Economia International* 21: 117-133.
- Belington N (1999) The location of foreign direct investment: An empirical analysis. *Applied Economics* 31: 65-76.
- Bloomberg B, Ashoka M (2005) How severely does violence deter international investment? Typescript. Department of Economics, Claremont McKenna College, Claremont, CA.
- Bloomberg B, Hess G, Orphanides A (2004) The macroeconomic consequences of terrorism. *Journal of Monetary Economics* 51: 1007-1032.
- Chandrapalart A (2000) The determinants of U.S. Direct investment in Thailand: A survey on managerial Perspectives. *Multinational Business Review* 8: 82.
- Coleman AK, Tetty KF (2008) Effect of exchange rate volatility on foreign direct investment in Sub Saharan Africa: A Case of Ghana. *Journal of Risk Finance* 9: 52-70.
- Dunning JH (1980) Toward an eclectic theory of international production: some empirical tests. *Journal of International Business Studies* 11: 9-31.
- Enders W, Sandler T, Parise F (1992) An econometric analysis of the impact of terrorism on tourism 45: 531-554.
- Erdal F, Tatoglu E (2002) Locational determinants of foreign direct investment in an emerging market economy: Evidence from Turkey. *Multinational Business Review* 10: 21.
- Gaibullov K, Sandler T (2008) Growth consequences of terrorism in Western Europe. *Kyklos* 61: 411-424.
- Hartman D (1984) Tax policy and foreign direct investment in the United States. *National Tax Journal* 37: 475-487.
- IMF (2010) Transactions with Fund. International Monetary Fund Website.
- Jackson S, Murkowski S (1995) The attractiveness of countries to foreign direct investment. *Journal of World Trade* 29: 159-180.
- Kemsley D (1998) The effect of taxes on production location. *Journal of Accounting Research* 36: 321-341.
- Kok R, Ersoy B (2009) Analyses of FDI determinants in developing countries. *International Journal of Social Economics*.

22. Lv N, Lightfoot WS (2008) Determinants of foreign direct investment at the regional level in China. *Journal of Technology Management in China* 1: 232-278.
23. Mirza D, Verdier T (2007) Impact of terrorism on financial markets of Pakistan. *European Journal of Social Sciences*.
24. Osinubi TS, Amaghionyeodiwe LA (2010) Foreign private investment and economic growth in Nigeria. *REBS Review of Economic and Business Studies* 3: 105-127.
25. Osorio GM (2008) Foreign direct investment and economic growth in Mexico: An empirical analysis. *Applied Economic* 34: 45-89.
26. Rasheed H, Tahir M (2012) FDI and terrorism: Co-integration and granger causality. *International Affairs and Global Strategy*.
27. Root F, Ahmed A (1978) Empirical determinants of manufacturing direct foreign investment in developing countries. *Economic Development & Cultural Change* 27: 751.
28. Ahmed SZ, Qazi M (2003) The determinants of FDI in Pak: an empirical investigation. *The Pakistan development, Review* 42: 697.
29. Swenson DL (1994) The impact of us tax reform on foreign direct investment in the United States. *Journal of Public Economics* 54: 243-266.
30. Udoh E, Egwaikhide FO (2008) Exchange rate volatility, inflation uncertainty and foreign direct investment in Nigeria. *Botswana Journal of Economics*.