

.2015

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\*

.2011-1990

(Dickey-fuller)

(Co-integration Test)

(VAR)

:

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\*

.2014/3/23 :

.2015

.2013/5/12 :

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## **The Impact of Jordan's Accession to the World Trade Organization (WTO) on Foreign Direct Investment in Jordan**

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### **Abstract**

This study aims to investigate the impact of Jordan's accession to the World Trade Organization (WTO) on foreign direct investment in Jordan during the period of (1990-2011). Several diagnosis tests have been used in the study; Dickey Fuller test for stationarity, Co-integration Test to find the cointegrating relationship among the variables, and Vector Auto-regression model (VAR) to reach the goal of the study. The results of the study have indicated that Jordan's accession to the WTO has negatively affected foreign direct investment in Jordan in the short run, and this effect becomes positive but insignificant in the long run. The study recommends supporting and promoting foreign direct investment in Jordan.

**Keywords:** Foreign Direct Investment, Jordanian Economy, World Trade Organization

:

(1995) (WTO)

(%90)

(2000)

(1996)

(1999)

(2000)

(1997)

:

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.(2011-1990)

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(2011-1990)

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Kojima)

.(1978

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.(2010 )

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.(Foreign Trade Companies)

: (2004 )

:

:

- 1

- 2

- 3

:

:

- 1

- 2

- 3

- 4

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(

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(Walmsley & et al., 2006)

(2020)

(Rutherford & Tarr, 2010)

(Nawafleh, 2011)

(2006 )

.(VAR: Vector Autoregression)

:

:( )

- 1
- 2
- 3
- 4
- 5

(1)

(26.3)

(1991)

(2011-1990)

1990

(8)

(28.5)

(1992)

(2000)

(-23.4)

(1993)

(639)

(2481)

(2006)

(2003) -  
 (1207.6) (2011)  
 (2008)  
 %20  
 .(2011-1990)  
 (1)  
 (2011-1990)

*		( )	( )	
0.86	0.161	49.6	26.3	1990
0.83	0.083	216.7	-8.3	1991
0.84	0.033	67.4	28.5	1992
0.85	0.039	69.8	-23.4	1993
0.77	0.036	44.6	1.9	1994
0.81	0.022	15.2	9.3	1995
0.88	0.066	16.6	10.8	1996
0.82	0.030	-263.4	252.6	1997
0.71	0.031	-296.6	217	1998
0.68	0.006	-140.4	110.5	1999
0.77	0.006	-119.8	639.2	2000
0.79	0.019	-155.5	191.5	2001
0.81	0.017	-145.4	166.7	2002
0.86	0.023	-97.2	382.8	2003
1.05	0.026	-154.1	655.7	2004
1.17	0.035	-977.1	1389	2005
1.11	0.063	-747.8	2480.8	2006
1.13	0.047	-958.4	1835.5	2007
1.13	0.139	-1056.5	1978.7	2008
0.86	-0.007	-1842.7	1698.6	2009
0.85	0.050	-1446.9	1190.9	2010
0.93	0.044	-2602	1207.6	2011

.2015					
	1990		(1)		
	(263)		(490)		1997
	(119)	2000			
2008	(2602)			(1056)	
	(%0.18)			2011	
				.(2011-1990)	
			(1)		
	(%16.1)	1990			
	(%8.3)		1991		
			(%0.6)	2000	
		-		2006	(%6.3)
		2009	(%-0.7)		
.2011	(%4.4)				
(%0.86)			(1)		(2011-1990)
	(%0.77)	2000			1990
(%1.17)					
2011	(%0.93)				2005
				.2008	





:

$$y_t = \beta y_{t-1} + U_t$$

:

$$H_0: \beta = 1$$

$$H_1: \beta < 1$$

: (2)

(Dickey-fuller)

-

(2)

%10	%5	%1			
-1.6246	-1.9592	-2.6889	-0.494830		
-1.6251	-1.9602	-2.6968	*-2.705501		(FDI)
-1.6251	-1.9602	-2.6968	*2.553426		(df)
-1.6246	-1.9592	-2.6889	-0.034074		
-1.6251	-1.9602	-2.6968	*-3.646902		(I/Y)
-1.6246	-1.9592	-2.6889	*-2.115474		(In)
-1.6251	-1.9602	-2.6968	0.000000		
-1.6257	-1.9614	-2.7057	*-2.236068		(D)

.%5

.\*

(df)

(2)

(FDI)

(In)

(DU)

(I/Y)

(DF)

(DF)

(DF)

(DF)

%5

%5

**:(Co-integration test)**

**.2**

.(Singular Matrix)

2011-1985

Singular )

(Matrix

(VAR)

**:(Granger Causality Test)**

**.3**

(3)

**(Granger Causality Test)**

**(3)**

			F		
		0.49*	0.758	FDI	df
		0.97*	0.283	FDI	df
		0.88*	0.127	FDI	In
		0.42*	0.915	FDI	In
		0.01	6.126	FDI	I/Y
		0.60*	0.529	FDI	I/Y
		0.11*	2.613	FDI	DU
		0.95*	0.054	FDI	DU
		0.70*	0.359	df	In
		0.21*	1.721	df	In
		0.01	5.931	df	I/Y
		0.64*	0.455	df	I/Y
		0.67*	0.415	df	DU
		0.74*	0.308	df	DU
		0.79*	0.239	In	I/Y
		0.56*	0.601	In	I/Y
		0.88*	0.125	In	DU
		0.28*	1.384	In	DU
		0.12*	2.455	I/Y	DU
		0.59*	0.556	I/Y	DU

:(\*)

: **FDI**

: **df**

: **I/Y**

: **In**

: **DU**

(0) (1)

:

$$FDI \Leftrightarrow DU$$

$$FDI \Leftrightarrow in$$

$$FDI \Leftrightarrow df$$

$$FDI \Rightarrow i/y$$

$\Leftrightarrow$

$\Rightarrow$

:

$$DU \Leftrightarrow FDI$$

$$DU \Leftrightarrow in$$

$$DU \Leftrightarrow df$$

$$DU \Leftrightarrow i/y$$

:(VAR)

.4

.(VAR)

VAR

:

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-1

(Exogenous Variables)  
VAR (Endogenous Variables)

-2

VAR

.(Multicollinearity)

.(Pindyck and Rubinfeld, 1991)

.(Sims, 1981) 1981 (Sims)

(4)

:

( Likelihood Ratio criterion) :LR-

( Final Prediction Error):FPE-

( Akaik criterion) :AIC-

( Schwarz criterion) :SC-

.( Hannan-Quinn criterion) :HQ-

: (Lag Length Criterion) .5

: (4)

(4)

HQ	SC	AIC	FPE	LR	
80.47954	80.67988	80.43095	5.87E+28	NA	0
76.45688	77.65891	76.16531	9.06E+26	94.71889	1
74.81194*	77.01567*	74.27740*	2.47E+26*	39.49119*	2

: (\*)

(2)

(2)

:(Variance Decomposition)

.6

: (5)

: (5)

FDI					
	FDI	Df	In	I/Y	DU
1	100.0000	0.000000	0.000000	0.000000	0.000000
2	35.56142	14.16012	25.70746	16.09790	8.473101
3	17.08438	8.652026	54.70073	15.22350	4.339363
4	15.05526	21.88203	48.15715	11.62092	3.284644
5	14.97828	28.79235	39.33210	11.34801	5.549248
6	16.53794	36.51053	30.76205	8.928363	7.261114
7	14.69867	38.81453	27.68328	8.298569	10.50495
8	12.77787	42.66436	24.69998	9.783651	10.07415
9	11.87466	40.62047	23.82974	14.96873	8.706400
10	10.01158	36.54832	28.40751	18.46964	6.562940
df					
1	3.637483	96.36252	0.000000	0.000000	0.000000
2	1.909670	35.60991	29.09477	31.94970	1.435952
3	9.012134	41.34331	24.76743	23.83284	1.044292
4	6.995948	36.43220	26.23066	25.52649	4.814691
5	5.493812	44.00317	22.30094	24.50654	3.695537
6	4.394215	39.37816	26.20814	25.67223	4.347261
7	3.447648	46.51521	23.44584	23.15545	3.435856
8	2.592448	43.58940	26.43365	24.09843	3.286072
9	2.143750	49.07804	24.39391	21.66560	2.718705
10	1.763779	49.69949	23.85642	21.31489	3.365426
In					
1	13.69377	11.12971	75.17653	0.000000	0.000000
2	12.96254	16.99692	69.50983	0.008438	0.522269
3	14.61384	11.56416	62.51515	10.74755	0.559298
4	25.17656	11.38094	52.36655	9.013137	2.062811
5	23.49588	11.02596	50.90852	8.140364	6.429271
6	21.83974	11.09317	52.80159	7.756999	6.508501
7	23.01269	11.05388	51.73187	7.827996	6.373570
8	26.20733	10.25719	48.63472	8.062879	6.837880
9	23.86635	8.239941	51.21767	9.907953	6.768085
10	19.88968	8.153165	55.92963	9.647458	6.380064

<b>I/Y</b>					
1	6.959542	0.362566	59.85612	32.82177	0.000000
2	7.279492	0.446401	65.15217	24.80318	2.318752
3	8.680724	1.647017	66.97340	20.66301	2.035846
4	7.756353	10.24027	61.93617	18.30525	1.761958
5	9.454997	19.80598	52.30737	15.49911	2.932540
6	10.62676	26.62707	44.48003	12.03527	6.230868
7	9.967959	29.75130	42.60903	9.418877	8.252828
8	9.136838	31.19146	41.32104	9.396281	8.954373
9	9.032971	31.62300	38.44341	12.43428	8.466344
10	8.998769	27.03039	39.33434	17.72637	6.910128
<b>DU</b>					
1	62.54596	0.011921	0.011190	3.112256	34.31867
2	71.71815	4.239391	10.04918	1.143822	12.84945
3	68.26987	8.154813	9.190759	4.353445	10.03111
4	55.70750	24.20736	8.254982	4.069923	7.760240
5	44.08382	39.42948	6.386310	3.801779	6.298615
6	39.57716	45.31018	4.668181	3.287388	7.157092
7	34.80880	48.01264	4.115322	4.053855	9.009376
8	30.26805	48.70191	3.434355	7.942628	9.653054
9	25.81123	46.98352	4.880234	13.54210	8.782922
10	20.66979	40.20467	13.37632	19.11545	6.633775

(5)

(FDI)

%28.79 (df)

%36.55

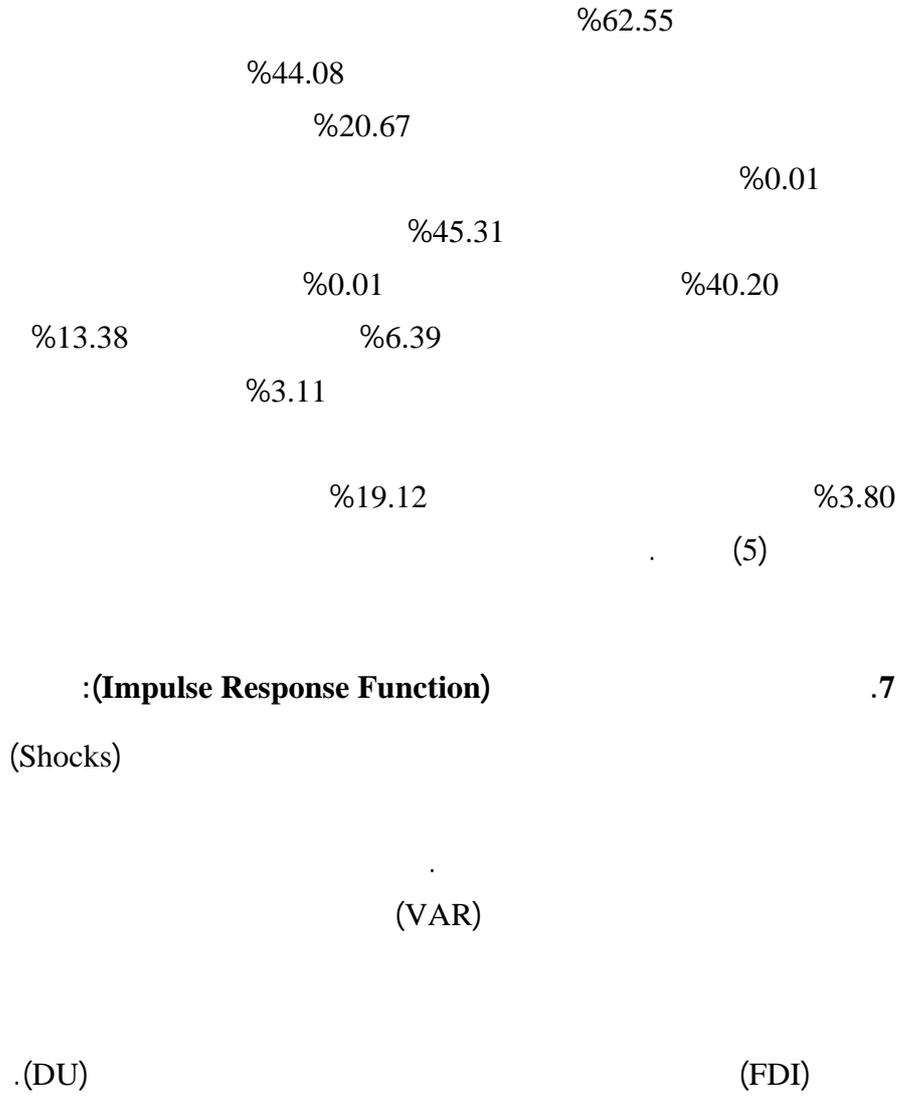
%39.33 (In)

%28.41

%11.35 (I/Y)

---

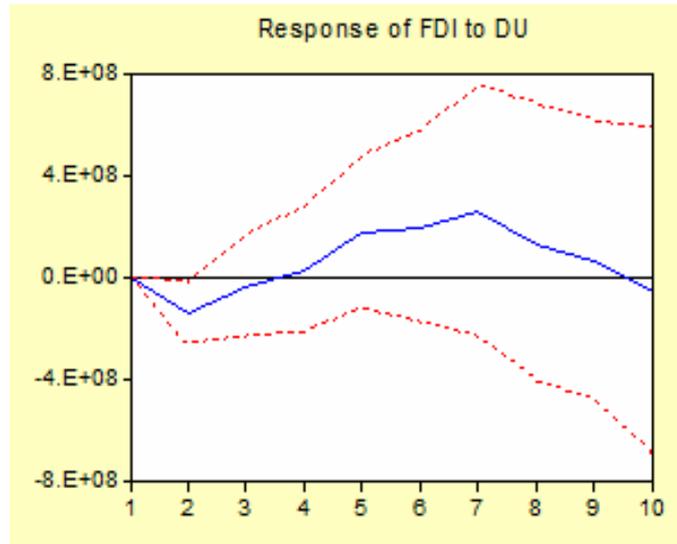
%5.55	(DU)		%18.47
			%6.56
			%3.64
			%5.50
	%3.70		%1.76
	%3.36		
			%13.69
	%19.89		%23.50
%6.43			
			%6.38
		%6.96	
		%9.45	
			%8.99
%2.93			
		%6.91	



**(Impulse Response Function)**

**(1)**

Response to Cholesky One S.D. Innovations  $\pm 2$  S.E.



(1)

(DU)

(2006 )

(Nawafleh, 2011)

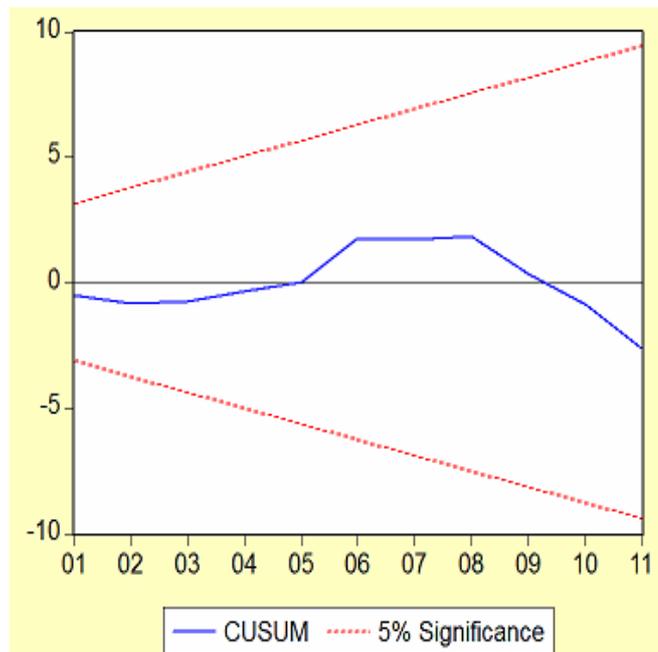
:(Stability test)

.8

(2) .(CUSUM Test)  
(%95)

.%5

CUSUM :(2)



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2011-1990

:

-1

)

-2

(%11

-3

:

-1

-2

.(2011-1990)

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