

*

(Before – After Approach)
.(1976-2009)

–

(2000 - 2009)

(1990 - 1999)

(1976 - 1989)

(VECM)

)

(

. 2014/7/6 :

.2015

. 2013/4/21 :

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The Effect of Trade Openness on the Profit Margin of the Industrial Jordanian Sector

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Abstract

The main goal of this study is to analyze the effect of trade openness on the profit margin of the manufacturing sector in Jordan. To achieve this goal, both descriptive and econometric analyses were deployed on data series spanned over the period 1976-2009. More specifically, the descriptive analysis used is the before-after approach, while Vector-Error-Correction - Model was used as an econometric technique.

The results showed retrogression in profit margin during the two periods of trade openness (1990-1999) and (2000-2009) in comparison with the period preceding trade openness (1976-1989). The results also showed better performance in profit margin of the manufacturing sector during the second millennium in comparison with the nineties, especially in the following sub-sectors: food products, clothing and textile products, and chemical and petroleum products.

The econometric analysis also supported these results. The VECM showed that a long run causal relationship existed between the variables (trade openness, real effective exchange rate, and crude oil price) and profit margin. The VECM also showed a short run negative and significant effect of trade openness, real effective exchange rate, and crude oil price on profit margin in Jordan manufacturing sector

2000

:

.1

.2

.3

-

(Before – After Approach)

:

(Vector Error Correction)

(The Unit Root Test of Stationary)

(Granger)

.(Co-integration)

(Cost – Plus Pricing)

ATC

:(Salvatore, 1993)

$$P = ATC (1+M) \quad (1)$$

M ATC :p

:

$$M = (P-ATC) / ATC \quad (2)$$

: Q/Q

$$M = (TR - TC) / TC \quad (3)$$

:

: TR

: TC

(TR - TC)

.(2001)

(3)

(2006)

(Boulhol, 2005)

(1970-2003)

(OECD)

(Import Penetration)

0.005

(OECD)

0.042

(Gulha & Yalgin, 2005)

(1995-2003)

(Koningsm, 2001)

(1992-1997)

(Levinsohn, 1993)

(Grether, 1996) (Harrison, 1994)

(2001)

1988 (8.7%)

1987 (15.6%)

(35.2%) (34.2%) (21.9%)

(Esposito, 1971)

77

.7

1988

.1987

(50%)

1989

"

"

(WTO)

Before – After)

: (Approach

(1976-1989)

:

(1990-2009)

(1990-1999)

(2000-2009)

(WTO)

(International Standard Industrial Classification (ISIC3))

:

) (15-16)

(36 20) (17-19

(23-25) (21-22)

(27-28) (26)

(1)(29-34)

(3)

(1) (1)

(1)

.2015

.(1976-1989) 16.7%

1980 15.1% 1977 40.1%

.1979

.1989 3.4%

(1)

% M	TR-TC	TC	TR		% M	TR-TC	TC	TR	
1.5	32	2170.1	2202.1	1994	31.6	29.8	94.3	124.1	1976
1.3	32	2499.1	2531.1	1995	40.1	42.1	104.9	147	1977
-0.3	-6.2	2416.7	2410.5	1996	37.2	45.1	121.1	166.2	1978
-0.4	-9.9	2549.7	2539.8	1997	43.1	76.8	178.1	254.9	1979
-1.3	-35.6	2616.4	2580.8	1998	15.1	55	365.1	420.1	1980
-2.5	-65.1	2569.5	2504.4	1999	17.2	86.7	502.1	588.8	1981
1.5	-	-	-		15.8	97	612.1	709.1	1982
3.3	91.5	2739.7	2831.2	2000	10.7	66.4	618.5	684.9	1983
1.1	34.3	3007.2	3041.5	2001	8.5	69.8	823.5	893.3	1984
2.7	91.7	3334.7	3426.4	2002	2.4	19.1	791.7	810.8	1985
6.6	237.9	3568.1	3806	2003	6.9	42.1	606.8	648.9	1986
14.6	625	4276.1	4901.1	2004	3.5	24.9	715.1	740	1987
15.7	844.8	5360.8	6205.6	2005	-0.9	-7.1	785.8	778.7	1988
14.5	900	6216.0	7116	2006	3.4	37.6	1088.9	1126.5	1989
20.9	1438.3	6857.7	8296	2007	16.7	-	-	-	
21.7	1793.9	8254.8	10048.7	2008	8.8	103.2	1171.7	1274.9	1990
20.8	1594.8	7658.6	9253.4	2009	4.9	59.3	1209.7	1269	1991
12.2	-	-	-		3.1	54.8	1790.9	1845.7	1992
					0.5	8.4	1737.6	1746	1993

.2009 -1976

:

0)

:

(1)



(1)

:

.1990 8.8%

1999 -2.5%

.1.5%

.2015

(2000-2009)

.12.2%

2009 20.8%

(2)

89.3 26.4

1.8

(2)

		% (1976-1989)	
% (2000-2009)	% (1990-1999)		
6.2	7.1-	8.4	
22.3	20.5	41.4	
19.9	21.3	33.7	
8	10.4	19.9	
15.7	.09 -	23.5	
117.4	123.5	142	
12.7	7.6	7.1	

.1976-2009

(3)

:

- 15.7% 22.3% 6.2%
-0.09% 20.5% 7.1%

Q1Z

343

.1

()

.2

.3

$$\ln(M) = \beta_0 + \beta_1 \ln(\text{Openness}) + \beta_2 \ln(\text{TC}) + \beta_3 \ln(\text{OP}) + \beta_4 \ln(\text{reer}) + \epsilon \quad (4)$$

ln(M)
: M
: Openness
(+ +) : TC
: OP
: reer
: ϵ
: REER
NEER
()
(CPI)

$$\text{REER} = \text{NEER} * (\text{CPI in tradepartner country} / \text{CPI in Jordan}) \quad (5)$$

(Openness)
+)
.(

The Unit Root) :
(Test

(3)
(Level)
Mackinnon (1991)
.5%
(ADF)
%5
.I(1)

جدول (3) نتائج اختبار ديكي- فولر الموسع

فترات التباطؤ *	الفرق الأول						المستوى						المتغير
	النتيجة	ومتجه زمني		حد ثابت		النتيجة	ومتجه زمني		حد ثابت		المحصوية الجدولية	حد ثابت	
		الجدولية	المحصوية	الجدولية	المحصوية		الجدولية	المحصوية	الجدولية	المحصوية			
1	مستقرة	-3.55	-5.48	-2.95	-6.72	غير مستقرة	-3.55	-1.43	-2.95	-1.82	LnM		
1	مستقرة	-3.55	-4.24	-2.95	-4.34	غير مستقرة	-3.55	-2.97	-2.95	-1.67	Lnopenness		
2	مستقرة	-3.55	-4.38	-2.95	-3.31	غير مستقرة	-3.55	-1.38	-2.95	-1.50	Lnreer		
4	مستقرة	-3.55	-3.70	-2.95	-3.74	غير مستقرة	-3.55	-1.90	-2.95	-0.96	Lnop		
1	مستقرة	-3.55	-4.67	-2.95	-4.49	غير مستقرة	-3.55	-2.63	-2.95	-1.98	Lntc		

* تم اخذ فترات التباطؤ بناء على معيار Schwarz

:

I (1)

(Johansen Co-integration Test)

Schwarz Akaike

(4)

.Schwarz Akaike

(4)

AIC	SC	
-4.429	-4.195	0
-11.072	-9.671	1
-11.281	-8.712	2
-13.024	-9.287	3
-14.626*	-9.721*	4

(5)

5%

Eigenvalue Test

Trace Test

VECM

.()

.2015

(5)

		(Eigenvalues Test)		(Trace Test)	
3	0.0000	85.49463	0.0000	163.5243	*
3	0.0055	34.50028	0.0000	78.02967	*
3	0.0048	27.88008	0.0007	43.52938	*
3	0.0409	14.81693	0.0474	15.64930	*

5%

()

*

:

(Granger)

(6)

(6)

		Chi-sq			*	Chi-sq			
	0.0213	7.69	op	Pcm		0.017	8.09	pcm	Op
	0.803	0.43	reer	pcm		0.000	30.44	pcm	Reer
	0.8516	0.32		Pcm openness		0.0384	6.52		Openness pcm
	0.993	0.01	tc	Pcm		0.7998	0.44	pcm	Tc

5%

*

Error Correction (ECM)

:

Model

(Co-integration)

(ECM)

VECM

Engle and Granger (1987)

Co-integration

:

:

.2015

$$Dpcm \equiv -0.42\lnpcmt_{t-1} - 0.26\lnopenness_{t-1} - 0.11\lnopenness_{t-2}$$

(0.21964)	(0.10413)	(0.07605)
[-1.92474]	[-2.53807]	[-1.50113]

$$-0.15\lnop_{t-1} - 0.02\lnop_{t-2} - 0.57\lnreer_{t-1} - 0.53\lnreer_{t-2}$$

(0.06490)	(0.06177)	(0.13258)	(0.21968)
[-2.37751]	[-0.37178]	[-4.33166]	[-2.41261]

$$+ 0.03\lnntc_{t-1} - 0.01\lnntc_{t-2}$$

(0.08076)	(0.05391)
[0.44430]	[-0.20844]

Adj. R-squared = 0.87

F = 8.92

Jarque-Bera = 10.780 Prob. = 0.374 (H_0 : Normal)

Correlation LM Tests = 27.684 Prob. = 0.322 (H_0 : Autocorrelation)

10%

()

42%

(REER)

()

(VECM)

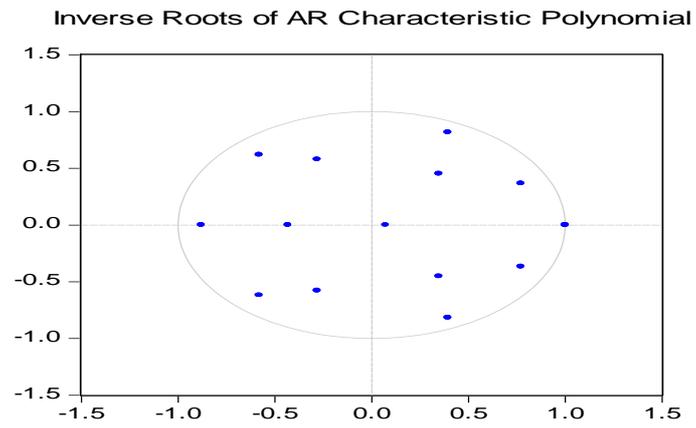
:

(VECM)

AR Root Graph

(2)

VECM (2)



Autocorrelation LM Test

Jarque-Bera

Heteroskedasticity

.1

.2

(VECM)

()

.1

.2

()

(2001)

(2) (29)

(2006)

(2) (33)

(2001)

(2010)

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