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ECONOMICAL DETERMINANTS OF DOMESTIC INVESTMENT

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Abstract

This study analyzes the trends of determinants of investments within the period (1980-2010) with focus on post-reform era efforts, both the short-run and long run movement of the investment process, using the co-integration econometrics method to estimate the dynamic of the variables in the study. This is in order to assess their behavior over time, and evaluate how these have either hindered or encouraged the growth of investment in the Jordanian economy.The results confirm previous results found in empirical literature. Namely, the growth rate GDP and exports and their significance in stimulating domestic investments. In addition to Foreign direct investment (FDI), and the development level of the financial sector and human capital in stimulating domestic investment only in the long-run. These results have implications for policy markets, investment prospectors, and foreign and domestic investors.

Keywords: Foreign Direct Investments, GDP, Jordanian Economy

1.Introduction

There is, theoretically and empirically, consensus on the relation between domestic investment and economic growth, but, there isn't a similar consensus on FDI and economic growth. Thus, the focus and the attention of both researchers and policy-makers were on FDI inward to find empirical hypothesis on FDI-lead growth. Recently, empirical evidence

suggests that the fastest growing countries are the biggest FDI-host countries (Fabry and Zeghni, 2002), which, leads to more attention on the determinants of FDI than domestic investment. However, after the Asian financial crisis, the attention shifted back to domestic factors such as domestic investment as a leader of economic growth. How did domestic investment increase in some developing countries and did not in others? In particular, what causes domestic investment and what retards it? These questions were asked.

Jordan recorded good rates of economic growth during the first half of the 2000's, ranging from 4.1% to 7.7%, but in contrast, domestic investment growth rates did not show any improvement during the 2000's. Therefore, it isimportant to discuss this matter, especially since it is well known that high domestic investment growth rates are critical in generating economic growth particularly in countries such as Jordan that are characterized by scarcity of resources, and high unemployment and poverty rates. Furthermore, policy-makers need to know what factors are crucial in determining the long-run domestic investment process. Specifically, what causes domestic investment in Jordan and what holds it back? And is FDI contributing directly to domestic investment stimulation?

The purpose of this paper is: first to investigate the long and short-run determinants of domestic investment in Jordan as one of the emerging economies; seeking to encourage domestic investment as well as enhancing foreign investment and hereafter increasing its economic growth. Second, to examine empirically the role of FDI on domestic investment, and namely, whether, there is evidence that the inflow of FDI "crowded in" domestic investment or not.

This paper contributes to the literature in the following ways: first, a large body of the literature is on the inflows of foreign direct investment and emphasizes how to encourage it as it has a vital role in economic growth, despite the shortage of empirical literature on domestic investment and its determinants, as most of the literature shows both domestic and foreign investment lead to high growth rate. Second, many empirical studies have been carried out on the relationship between domestic investment in developing countries and its determinants, although the results are mixed. The ambiguous results of existing studies, mainly stemming from the inappropriate econometric methods, call for further study of methodology and empirical model building. The results from the autoregressive distributed lag (ARDL) approaches according to Pesaran et al. (2009) are more likely to be more persuasive than their predecessors. The use of the test is necessary because the power of conventional unit root tests may be low for a time span typically available for empirical

works. The approach also allows us to take on the estimation problem of **non-stationary data**and differentiate between long and short-term relationships.

Finally, this research was conducted following recent economic reform efforts in Jordan, involving the adoption of laws that encouraged both domestic and foreign investment, and that resulted in the increase in economic growth rates during the 2000's, combined with of the inflow of foreign capital, new technology, export expansion, and the search for new policy options that could contribute to accelerate domestic investment in Jordan.

The policy concern of this finding in post-reform era is clear: if it is positive, both in the short and long-run as shown by our results, then development of domestic factors as well as external capital may lead to domestic investment acceleration. Thus, it is important for Jordan to restructure and develop domestic factors (such as financial intermediation, human capital, exports), structure for undertaking efficient investment allocation and to cater for an external capital market that is showing greater interest in Jordan's emerging economy.

The remainder of the paper is organized as follows. Section 2 reviews Jordan's economic background. This is followed by the relevant theoretical and empirical considerations. Section 4 provides econometric method. Section 5 contains data description and empirical results. Finally, the last section contains the concluding remarks.

2.Jordan's Economic Background

By the end of 1990s, Jordan's corporate environment is conducive to modernising the bureaucracy of the state, tariffs, taxes, employment constraints, adapting the financial and educational systems in view of the new challenges brought about by globalization and the modernization of infrastructures, particularly in the fields of transport and telecommunications, profit repatriation and the protection of property rights.

Jordan became an attractive channel for duty and quota-free access to major world markets, including the European Union (EU) and the United States (US), after establishing Qualified Industrial Zones (QIZ) in 1997(Ministry of Industry and Trade, 1997, 2000) - industrial parks from which goods can be exported duty free to the United States -, and entered the World Trade Organization (WTO) in 2000, signed a free trade agreement with the US in the same year, prior to concluding an association agreement with the EU in 1999 (Ministry of Industry and Trade, 1999). Furthermore, Jordan made efforts to adopt laws that encourage FDI, which is a vehicle for new technology.

The empirical evidence suggests production of high-tech products in the low-wage country yields an extra-profit or a rising market share for domestic producers or foreign investors. This extra profit may allow Jordan, as well as the other developing countries, to catch-up with developed countries and as such should be considered an important revenue source.

Jordan's economy has, in fact, shown inconsistent growth rates. Table (1) shows that Jordan had rapid GDP growth rates during the 1980's, while it had the lowest growth rates during 1990's (around 2 %), and good rates during the first half of 2000's as it ranged from 4.1% to 7.7%, but in contrast, domestic investment ratios did not show any improvement during 2000's. With the exception of the 1980's, domestic investment as a percentage of GDP was a modest percentage and it ranged between 19% and 22% during the 1990's and first half of the 2000's. The gross domestic investment was matched mostly by low rates of domestic savings as shown in the table. Thus, the need arises to fill the gap in resources with the inflow of foreign capital, mainly in the form of either Foreign Direct Investment (FDI) or foreign borrowing.

Over the years financial deepening as measured by M2/GDP in Jordan took place. For instance, the ratio increased from 85 % in 1980 to 113 % in 1990, and from 124 % in 2000 to 133 % in 2010. Indeed, various policies and measures have been introduced to promote exports of goods. Therefore, Jordan's integration efforts led to a significant increase in new FDI as well domestic investment. For example, there is a surge in FDI into Jordan's Qualifying Industrial Zones (QIZs) motivated by the country's privileged access to the United States market for goods produced in those qualifying zones. The total amount of investments in Jordan's QIZs has reached ($600) million, and the total exports jumped from ($700) million JD in 1990 to more than ($2700) million JD in 2010, around (30%) of the total exports is going to United States of America's market.

Table 1. Macroeconomic Indicators for Jordan

Key Indicators Years	1980	1990	2000	2007	2008	2009	2010
GR	11	1.6	4.8	5.3	5.7	4.1	7.7

GDI	38.8	23	22.4	21.1	20.4	21.2	19.8
GDS	19.3	5	11.7	10	14	20	19
M2	84.5	113	124	124	125	134	133.1
FDI	10.2	25	577.7	97.6	52.8	309.3	461.6
X	15	25.5	23	25.6	29.3	30.9	34.7
M	61.4	62	54.4	54.2	53.7	57.7	71
Inf	15	14.4	0.7	1.8	1.8	2.3	3.4

Note: Gr: growth rates of real GDP; GDI, gross domestic investment as a percentage of GDP; GDS, gross domestic savings as a percentage of GDP; M2, money deepening as a percentage of GDP; X, exports of goods as a percentage of GDP; M, imports of goods as a percentage of GDP; Inf, inflation rates.

Sources: Various issues of monthly statistic bulletin of Central Bank of Jordan and various issues of national accounts of department of statistics.

3.Theoretical and empirical consideration

A number of models have been employed in the literature to explain the determinants of investment, among these models are the Neoclassical investment model and the accelerator investment model. The Neoclassical model has been criticized for its shortcomings in estimating investment function for developing countries. These criticisms are related to the lack of readily available measures of capital stock and/or returns to capital (Blejer and Khan, 1984). In that regard, the study will consider the accelerator investment model for the same reason.

Fry (1998) established a flexible accelerator model and developed by Agrawal (2000). Fry developed an investment model in terms of the ratio of investment to GDP based on the flexible accelerator model. The accelerator model has desired capital stock k* proportion to real output, y:

$$k* = \alpha y \qquad (1)$$

This can be expressed in terms of desired ratio of net investment to output

(I /Y) *:

$$(I/Y)* = \alpha\gamma \qquad (2)$$

Where I is gross domestic investment in current prices, Y denotes GDP in current prices and γ is the growth rate of real GDP. A partial adjustment mechanism allows the actual

investment rate to adjust to the difference between the desired investment rate and the investment rate in previous period:

$$\Delta (I /Y) = \lambda[(I/Y) * -(I/Y)_{t-1}]$$

$$\text{or} I/Y = \lambda(I/Y) * +(1- \lambda)(I/Y)_{t-1} \tag{4}$$

Where λ denotes the coefficient of adjustment. The flexible accelerator model allows economic conditions to influence the adjustment coefficient λ. Specifically:

$$\lambda \beta_0 + \beta_1 Z \left[\frac{+ \beta_2 Z_2 + \beta_3 Z_3 + ...}{(I/y) * -(I/Y)_{t-1}} \right] \tag{5}$$

Where Z_i are the variables (include an intercept term for constant depreciation rate) that affect λ rate, and β_i are their respective coefficients.

Ghura and Goodwin (2000) also employed the following empirical framework for the analysis of the determinants of domestic investment using panel data from (31) developing countries:

$$Y1 = \alpha + \beta X_i + e_i \tag{6}$$

Where y_i is the ratio of domestic investment to GDP, X_i are the observable variables representing factors affecting domestic investment, α and β are parameters to be estimated, and e_i is a random error term with a mean of zero.

In this line of research, most researchers have included all or a subset of the following variables (among others) as the exogenous variables in the domestic investment equation: FDI, financial intermediation, exports, human capital, and domestic credit availability. See for example: Ghura and Goodwin (2000), Fry (1998), and Agrawal (2000). These studies implicitly assumed the existence of an underlying equilibrium relationship between domestic investment and a given set of explanatory variables. Our estimation technique differs from these earlier studies in the way that handles the non-stationarity feature of the data. Theoretically, most literature pointed out that all these variables contribute positively to the growth of domestic investment in developing countries (see among others: Lucus, 1998; Romer, 1990; Borensztein, et al., 1998; Levin and Beck, 2000; Gura and Goodwin, 2000; Madsen, 2002). Specifically, the model used is:

$$GDI = \beta_0 + \beta_1 Gr + \beta_2 FDI + \beta_3 FI + \beta_4 H + \beta_5 Cr + \beta_6 X + t + e \tag{7}$$

Where:

GDI   Denotes domestic investment (net of FDI)

Gr   Denotes the growth rate of real GDP,

FDI   Denotes foreign direct investment as a ratio of GDP,

X   Denotes the exports of goods and services as a ratio of GDP,

FI   Denotes financial intermediation as calculated by M2 as a ratio of GDP,

H   Denotes human capital proxied by secondary school enrolment ratio,

Cr   Denotes domestic credit availability as a ratio of GDP,

T   Denotes trend.

ε   Denotes error term

4.Econometric Method

We apply the ARDL approach proposed by Pesaran *et al.* (2001) to estimate equation 6. The following ARDL model is estimated to examine the long-run relationship:

$$\Delta GDI = \alpha_0 + \alpha_1 Gr_{t-1} + \alpha_2 H_{t-1} + \alpha_2 H_{t-1} + \alpha_3 X_{t-1} + \alpha_4 GDI_{t-1} + \alpha_5 FI_{t-1} + \alpha_6 FDI_{t-1} + \alpha_7 Gr_{t-1} + \beta_1 \sum_{i-1}^{m} FDI_{t-i} + \beta_2 \sum_{i=0}^{n} \Delta Gr_{t-i} + \beta_3 \sum_{i=0}^{p} \Delta H_{t-i} + \beta_4 \sum_{i=0}^{q} \Delta X_{i=0} + \beta_5 \sum_{i=0}^{x} \Delta GDI_{t-i} + \beta_6 \sum_{i=0}^{y} \Delta FI_{t-i} + \beta_7 \sum_{i=0}^{x} \Delta Gr_{t1} + B_8 t \tag{8}$$

The choice of the correct lag is a crucial issue in these tests. There are many information criteria such as Akaike Information Criteria (AIC), Schwarz Bayesian Criteria (SBC) and Log-likelihood Ratio (LR) statistic that can be used to select the optimal lag length. In this study, we rely on SBC, because it chooses the most parsimonious model, consistent, have small sample properties and performs slightly better in the majority of their experiments (see Morimune and Mantani, 1995; Quinn, 1988; Pesaran and Shin, 1999; Alam and Quazi, 2003; Almasaied, 2006, 2007). It is worth noting that the sample size in this study was limited to 35 observations, and with 6 variables. Thus, the maximum order of appropriate lag structure for a VAR model was set to 3 to address this limitation. The results based on SBC criteria suggest that the optimal lag is one.

One of the important advantages of ARDL procedure was that the estimation is possible even when the explanatory variables are endogenous (Alam and Quazi, 2003). Furthermore, as long as the ARDL model is free of residual correlation, endogeneity is less of a problem. Pesaran and Shin (1999) showed that the appropriate lags in the ARDL model are corrected for both residual correlation and endogeneity. The important advantage of ARDL against the single equation cointegration analysis such as Engle and Granger (1987) is that Engle and Granger suffer from problems of endogeneity while the ARDL method can distinguish between dependent and explanatory variables.

Furthermore, the ARDL method estimates the long and short-run components of the model simultaneously, removing problems associated with omitted variables and autocorrelation. Thus, estimates obtained from the ARDL method of cointegration analysis

are unbiased and efficient, since they avoid the problems that may arise in the presence of serial correlation and endogeneity (Siddiki, 2000; Siddiki, 2002, Almasaied, 2007).

5.Data and empirical results

5.1.Sources of Data

The annual data for Jordan was computed from different sources and the time period spanning from 1980 to 2005. The data definitions and statistical sources used in this study are listed in Table (2).

Table 2: Description of the Data and Statistical Sources

Variable	Description of the Data	Source
Gr	Growth rate of real GDP	CBJ, DOS
FDI	Foreign Direct Investment as a ratio of GDP	CBJ, DOS
GDI	Gross Domestic Investment (net of FDI) as a ratio of GDP	CBJ, DOS
FI	Financial intermediation proxied by M2 /GDP	CBJ
H	Human capital proxied by secondary school enrolment ratio	UNESCO, DOS, MOE
X	Export of goods and services as a ratio of GDP	CBJ, DOS
Cr	Domestic credit	CBJ, DOS

Note: CBJ, denotes Central Bank of Jordan; DOS, Departments of Statistics, International finance Statistics, MOE, Ministry of Education.

5.2 Long--Run Equilibrium Estimation

To explore the existence of long-run relationship or co-integration among the variables in the model (7), we employed the ARDL test proposed by Pesaran et al., (2001). The existence of a unique long-run relationship is crucial for valid estimation and inference about the parameters of the models. One of the important advantages of the ARDL procedure was that the estimation is possible even when the explanatory variables are endogenous

(AlamandQuazi, 2003). Furthermore, as long as the ARDL model is free of residual correlation, endogeneity is less of a problem. Pesaran and Shin (1999) showed that the appropriate lags in the ARDL model are corrected for both residual correlation and endogeneity.

The Schwarz Bayesian Criteria (SBC) selects an ARDL (1,0,0,1,0,0) domestic investment model for Jordan. The results of ARDL model of Jordan's domestic investment are reported in Table (3). As it can be seen from the table, most of the variables are significant and the signs are consistent with a priori expectation. With the exception of credit availability, real GDP growth, FDI, financial intermediation and exports statistically have a significant positive effect on domestic investment.

The long-run results of ARDL for Jordan's data indicate that the expansion in the export of goods and services is a key determinant of domestic investment. The coefficient of exports indicated that exports had a larger impact on domestic investment, which suggest that a 1 million JD increase in the exports could result in 62 million JD increase in domestic investment accumulation. Our result confirms similar results of Jansen, 1995, and Cuvers (1996) for groups of developing countries. In addition, the estimation results provided support for a complementarity between domestic investment and foreign direct investment (FDI) that means FDI has a strong stimulus effect on domestic investment. This suggests that a 1 million JD increase in FDI could result in an increase in domestic investment by 17 million JD, which indicated the inflow of FDI "crowds in" domestic investment in Jordan, and confirming a similar finding of Borensztein, et al., (1998).

The long-run estimation indicates that improvement of financial intermediation (captured by ratio of browed money to GDP) is boosting domestic investment by their contribution to lowering the requirement to finance and thereafter lowering the cost of borrowing. This result is in line with the hypothesis that financial intermediaries provide the link between the financial and the real sector and confirmed theoretical literature arising out of the McKinnon and Shaw hypothesis (McKinnon 1973, Shaw 1973) and confirmed the findings of Fry (1998); Ghura and Goodwin (2000), and Agrawal (2000).

As shown on the table, the real growth of real GDP is an important determinant of domestic investment, confirming the results of Greene and Villanueva (1991) and Ghura and Goodwin (2000), and it is consistent with the findings of Blomstrom et al. (1996) where there is a causality between economic growth and gross investment and confirmed the result of Madsen, (2002) regarding policies that seek to enhance investment which are the effective means of promoting economic growth. Booth (1999) argued that rapid growth leads to high

rates of investment and vice versa. See also: De Long and Summers, (1992); Chaudhari and Wilson, (2000); Podrecca and Carmeci, (2001), and Krishnaa et al., (2003).

Table 3. Long-Run Coefficients Estimates for Economic Growth Model

Regressors	Dependent Variable Domestic Investment	
	SBC Selected model	
	(1,0,0,1,0,0)	
	Coefficients	T-ratio [P-value]
Gr	0.4474	2.6446 [.018]**
X	0.6201	2.4405 [.028]**
FI	0.6188	2.2908 [.037]**
FDI	0.1721	3.2684 [.005]***
H	0.0994	2.5846 [.021]*
CR	0.1243	[0.7395 [.825]
C	-2.3256	-1.9060 [.076]*
The period [No. of Obs.]	1980-2010 [36]	

Note: Following Pesaran et al. (2001), lag order of the ARDL model was selected using Schwarz Bayesian Criteria (SBC) and the LM tests for testing residual correlation. Asterisks ***, **, * represent 1%, 5%, 10% significant levels, respectively. The t-ratios are reported in square brackets. The following notation applies: Gr, denotes growth rate of gross domestic product; GDI, gross domestic investment; FDI, foreign direct investment; FI, financial intermediation (M2/GDP); H: human capital; X: exports of goods and services. *T*: not significant thus omitted from the table.

Another interesting result arising from long-run ARDL relates to the important role of educational development in Jordan in stimulating domestic investment which is consistent with theories saying that the higher the educational development (as proxy for the human capital) the higher the level of domestic investment (see: Borensztein et al., 1998 and Ghura and Goodwin, 2000). While the increase in domestic credit did not appear to have a significant impact on domestic investment in the long-run, but it had a significant impact in the short-run as will be seen in the ECM result in the next section.

5.3 The ECM Estimation

The short-run dynamics of domestic investment function in Jordan was also estimated using the ARDL approach to co-integration of Peseran et al. (2006). The results of ECM estimation based on the ARDL technique for domestic investment model along with diagnostic tests are reported in Table (4).

The diagnostic statistics in Table (4) indicated that the equation was well specified. None of the statistics shown in the table were significant at the 5% significance level. The model fulfilled the conditions of non-autocorrelated, homoskedasticity and normal distribution; i.e. the χ^2 tests showed no evidence on residual serial correlation, while the Ramsey's RESET tests showed no functional form of misspecification. Furthermore, the χ^2 tests did not indicate any evidence of normality problem or heteroscedasticity of residual. Indeed the Adjusted R^2 is 0.836 suggesting that the error correction models (ECM) fitted the data reasonably well.

As shown in Table 4, the estimated values of the lagged error-correction term (ECM_{-1}) based on the ARDL method is -0.5702 and statistically significant, which suggest that the ECM tends to cause domestic investment to converge monotonically to its long-run equilibrium path in relation to changes in the exogenous "forcing variables". Again the statistically significant and the correct sign of ECM_{-1} coefficients confirm the presence of long-run equilibrium between domestic investment and its determinants.

The empirical results also showed that the short-run movement in most of the variables of domestic investment equation had the correct signs and were statistically significant, suggesting the existence of long term relationship between the model's variables. The coefficients of exports (0.3517) and the growth rate of GDP (0.255) carry positive signs and are noticeably larger than most of the other variables in ECM. This result indicates that if the growth rates of both real GDP and export are sustainable during the next years, as in the period 2006-2009, the growth rates of domestic investment will be better than during the pre-2000's period. Since the growth rate of both GDP and exports were very small during the decades of the 1980's and1990's, compared to those of the 2000's, this could be the reason why the growth rate of domestic investment in Jordan was weak and ultimately slowed the economic growth during the pre-2006s period.

The empirical results suggest that the inflow of FDI have a "crowd in" effect on domestic investment, and that there was complementary relationship between FDI and domestic investment in Jordan. Another important point is that FDI had a smaller impact on domestic investment stimulation. For example, this result suggests that a 1 million JD increase in FDI inflow to Jordan could result in an increase in domestic investment by only 90 thousand JD. Also, the results showed that the availability of domestic credit had a short-run effect on domestic investment while financial intermediation, and human capital showed no clear effect on domestic investment in the short-term.

These results are consistent with the previous findings in that the growth of real GDP stimulates domestic investment (see: De Long and Summers, 1992; Chaudhari and Wilson, 2000; Ghura and Goodwin, 2000; Podrecca and Carmeci, 2001). Booth (1999) argued that rapid growth leads to high rates of investment and *vice versa*. Numerous studies including Carkovic and Levine (2002), Marchant, et. al., (2002), Agrawal (2000) and Graham and Krugman (1991) found that the increase in the FDI inflows were associated with a many-fold increase in investment by national investors. For example, Borenszteinet. al. (1998) investigated the effect of FDI on domestic investment. His results were supportive of "a crowding in" effect, and he found that a 1 US$ increase in the net inflow of FDI is associated with an increase in total investment in the host economy by more than 1 US$. Borensztein interpreted his finding by the advanced technology and management skills carried by FDI transfer to domestic investment. Our study confirmed that the expansion of the export of goods and services inspired domestic investment (see: Jansen, 1995; Cuvers, 1996).

Table 4. Error Correction Models based on the ARDL approach:

Short-Run Estimations for domestic investment Model

Regressors*Dependent Variable Domestic Investment*		
	SBC Selected model	
Coefficients	*T-ratio [P-value]*	
ECT	-0.5702	-4.0464[0.001]***
dGr	0.2551	4.3776[0.000]***
dX	0.3517	2.9941[0.008]**
dFI	0.2847	1.2162[0.241]
dFDI	0.0981	3.6062[0.002]**
dH	0.3026	0.8986 [0.381]
dCR	0.0199	2.1523 [.042]**

C	-1.3260	-2.0971 [0.051]**
R^2	—	0.8365

Diagnostic Tests: x^2 [p-value]

h-statistic	1.0855	[0.278]
A: AR (1)	.7510	[0.386]
B: RESET (1)	2.1909	[0.139]
C: Norm. (2)	1.2319	[0.540]
D: Hetero.(1)	1.3480	[0.538]

Note: Following Pesaran and Shin (1997), lag order of the ARDL model was selected using Schwarz Bayesian Criteria (SBC) and the LM tests for testing residual correlation. Asterisks ***, **, * represent 1%, 5%, 10% significant levels, respectively. The t-ratios are reported in square brackets. The following notation applies: Gr, denotes growth rate of real gross domestic product; GDI, gross domestic investment; FDI, foreign direct investment; FI, financial intermediation (M2/GDP); H: human capital; X: exports of goods and services. The probabilities of χ^2 for the diagnostic tests are represented in square brackets. A: Lagrange multiplier based on the Breusch-Pagan LM test for residual serial correlation; B: Ramsey's RESET test using the square of the fitted values; C: Based on a test of skewness and kurtosis of residuals; D: Based on the regression of squared residuals on squared fitted values. T: was not significant thus omitted from the table.

Finally, we examined the stability of the long-run parameters together with the short-run movements for each equation. To this end, we relied on the CUSUM and CUSUMSQ tests proposed by Brown et. al. (1975). The same procedure has been applied by Pesaran and Pesaran (1997) and Bahmani-Oskooeeet. al. (2002) to test the stability of the long-run coefficients. The tests applied to the residuals of the ECM models (Table 4).

6. Conclusion

The determinants of domestic investment in Jordan, as well as in developing countries, have been widely investigated by a number of studies but the results are ambiguous. This study has extended the investigation using appropriate and recent econometric methods, namely the Autoregressive Distributed Lag (ARDL) approache according to Pesaran et al. (2001). The results from ARDL are more likely to be more persuasive than their predecessors.

Indeed, it contributes to literature by using recent data to cover post economic reform period in Jordan that resulted in the adoption of new laws to encourage both domestic and foreign investment, which resulted in increasing economic growth rates during the first half of 2000.

Domestic investment in Jordan is stimulated by real GDP growth as well as expansion of exports of goods and services. This result indicates that if the growth rates of both real GDP and exports will be sustainable during the next years, as in the period 2000-2005, the growth rates of domestic investment will be better than during pre-2000's period. Also, FDI inflows to Jordan is "crowd in" domestic investment but with less magnitudes than GDP growth and exports expansion. In addition, the development level of financial sector and human capital is crucial for stimulating domestic investment in long term. Whereas, the increase in domestic credit availability will enhance domestic investment in the short-run. Hence, it is arguably worthy for the authorities to encourage both export expansion and FDI inflows to stimulate domestic investment and thereafter economic growth.

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