*Indian Journal of Fundamental and Applied Life Sciences ISSN: 2231– 6345 (Online)*
*An Open Access, Online International Journal Available at www.cibtech.org/sp.ed/jls/2015/01/jls.htm*
*2015 Vol.5 (S1), pp. 1453-1458/Ali et al.*
***Research Article***

# EFFECTS OF TRADE LIBERALIZATION AND FDI ON IRANIAN ECONOMIC GROWTH

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## ABSTRACT
One of the major reasons for the lack of development in developing countries is the insufficiency of national savings for embarking on acceptable investment and acquiring technical knowledge and the technology of production. The purpose of this paper is to evaluate the interactive and independent effects of forein direct investment and trade liberalization on Iran's economic growth. To do so Bogwatti's theory and ARDL Method have been used between 1974 and 2012. Results illustrate that trade liberalization and foreign direct investment affect the economic growth both independently and interactive, that is economic openness paves the ground for more foreign direct investment and economic growth.

***Keywords:*** *Trade Liberalization; Foreign Direct Investment; Economic Growth*

## INTRODUCTION
One of the main reasons for underdevelopment of developing countries is insufficient domestic savings to be invested in order to achieve a desired level is a good investment. Recent years in many developing countries with trade liberalization prepare is foreign direct investment as an important factor in accelerating the economic growth of developing countries. It have proven quite foreign direct investment by increasing domestic savings, greater investments are possible, as well as Foreign direct investment in the transfer of technology to developing countries will play a significant role in the release Positive impact on attracting FDI and whether FDI has a positive effect on economic growth.
The role of foreign direct investment as an important factor in accelerating the economic growth of developing countries have proven quite FDI to the host country, which gives it the ability to go beyond the level of investment savings Achieve internal and contrary to prevailing thinking, the impact of FDI on economic growth are not independent and specific features of countries it depends One of the characteristics of the host country, FDI can have a great impact on the growth of trade policy measures By that country in a general improvement in the economic situation by changing the macro variables that can be investigated and if should be considered to promote economic growth influencing factors are examined as part of the investment generally on one of the factors affecting economic growth and is part of the investment will be financed through foreign direct investment. Hence,this study examines the impact of these factors on economic growth.
A review of the conducted research's
Foreign direct investment FDI proponents argue that one way that can affect the host country's economic growth and FDI on the one hand the transfer of assets to the host country and the presence of foreign investors in the host country who makes capital deepening is transmitted the new growth theory or endogenous growth theory, the most important factor accumulation growth factor called knowledge (Ramos and Artura, 2001). This stands in contrast to the accumulation of Unlike physical inputs, increasing efficiency and ensures a long-term growth and sustainable opponents argue that what the proponents of foreign direct investment as its main points offer these types of net capital entering of the country that are causing the activation of financial markets provides add Import and Export provides, but experiences show that the exact opposite happened and it always favor the investor(Akash, foreign investment, economic freedom, 1984).

The reasons for the mismatch between actual experiences of countries are opposed to the ideas, because it cannot prepare right FDI and economic conditions in those countries named. But the positive impact of foreign trade on economic growth has been emphasized by Adam Smith Druze growth theory, free trade is one of the most important factors that may cause long-term economic growth (Roomer, 1986, Lucas, 1988) According to Grasman and Helpman (Grossman and Helpman, 1991) Free trade spillovers of technology transfer is ignited and thus may affect economic growth Bhagwti (1978) established the popular assumption upon which the performance of the volume of foreign direct investment related to trade policy is decided by the host country. In experimental studies abroad Sayyn and Bhrmvsha (2010) (W.N.W.Azman-Saini, Ahmad Zubaibi Baharamshah, Siong Hook Law, 2010,www.elsevier,com/locate/ecmod) conducted a study of the communication system between economic liberalization and foreign direct investment (FDI) on economic growth, 58 Drawer the basic results of the combined data suggested that FDI is a direct factor of output growth is positive instead, the impact of FDI on the host country is a compilation of the level of economic freedom, the countries to achieve the benefits a remarkable group of international efforts for the freedom of economic activity do. Also Studies by Goa and Sanches-Robles Robles (Saini *et al.*, 2003). The relationship between economic freedom and foreign direct investment and growth by using consolidated financial data for the years 1999 to 1970 in 18 Latin American countries and observed that Brrsb Commercial freedom in the host country has a positive role in the entry of foreign direct investment, and the results indicate There is a positive relationship between FDI and economic growth in the host country. The home country of the applicant in any case, human capital and economic stability and open market for the benefit of capital flows are high. Balasubramanyam,V, N Salisu and D. Sapsford (Balasubramanyam *et al.*,1996) using a production function in which capital labor, FDI and exports of the host country as production inputs are considered as hypothesis testing in 46 developing countries that Bhagwti results indicates .

States that the EP, the coefficient of FDI is positive and significant in the production function While this coefficient isn't significant in IS countries. Bhagwti theory validates the interior of chrysanthemums and Shahmorady (2004) examined the factors affecting attracting foreign direct investment in 47 countries over the period 2002 to 1990 have shown that the results according to the legal infrastructure, encourage domestic investment and private sector efforts to enhance political stability can lead to attracting more foreign direct investment in the country.

Babazadeh, Gadimi and Boyer (2007) examined the empirical analysis of the relationship between trade liberalization and economic growth in period 2004 - 1969 using the theoretical framework of endogenous growth models is discussed. Results indicate that between exports and economic growth, foreign direct investment and economic growth, there is a positive long-term relationship

The research model

In this study the conflicting effects of FDI and trade policy on economic growth in Kohpiboon model (2003) which follows the exponential generating function is used, so:

$$y = AL^{\alpha_1} K^{\alpha_2} \quad (1)$$

Y = Level of real GDP
L = labor
K = capital stock
A = Technology
$\alpha_i$ = Production elasticity i

Production function of the logarithm of the above - we can write the following line.

$$LnY = LnA + \alpha_1 LnL + \alpha_2 LnK \quad (2)$$

According to the neoclassical growth theory, technological change is an exogenous factor, but the new growth theory, technological progress is exogenous factor that factors such as investment in R&D and human capital can be adjusted. Also the New theories of growth to FDI through technology and building external consequences and spillover effects, undeniable impact on the accumulation Science and

technology in the host country will, therefore, the growth of FDI will be a function of technology. On the other FDI impact on growth of A, the host country's business environment is highly dependent on the conditions and
hence:

$$LnA = C + \alpha_3 FDI * OP \tag{3}$$

So:
= Effect of overlapping (or Mass Effect) FDI and Foreign Trade by substituting equation 3 in Equation 1 can be written

$$LnY = C + \alpha_1 LnL + \alpha_2 Lnk + \alpha_3 FDI * OP \tag{4}$$

Therefore, the study of (1) can be written as follows.
To obtain the total effect of FDI on economic growth (dy / y) can be derived from the above equation with respect to FDI, thus:

$$\frac{\partial \mathrm{LnY}}{\partial \mathrm{FDI}} = \alpha_3 \mathrm{OP} \tag{5}$$

5 If the relationship is derived with respect to OP. Hence:

$$\frac{\partial(\partial \mathrm{LnY} / \partial \mathrm{FDI})}{\partial \mathrm{OP}} = \alpha_3 \tag{6}$$

Thus, the coefficient indicates that the effect of FDI on economic growth with increased commercial freedom, how to change,

$$\begin{aligned} LnYi &= C + \alpha_1 LnLi + \alpha_2 LnK_i + \alpha_3 FOP_i \\ FOP &= FDI * OP \end{aligned} \tag{7}$$

Y: Real gross domestic product (GDP) in constant prices of 1997
L: labor force is employed in economic activities (Amin, 2007)
K: Real physical capital stock in 1997 constant prices is
and the capital of the country, which is calculated as follows:

$$\mathrm{K_t} = \delta \mathrm{K_{t-1}} + \mathrm{I_t} \tag{8}$$

$\mathrm{K_t}$: Inventory investment this year

$K_{t-1}$: Inventory investment years ago

$\delta$ : Depreciation rate of capital

$I_t$ : Year gross investment (Amin and exhilaration, 2005)

C variable, to show the effects of war and revolution in the variable model is presented for the period 1978 to 1988 is equal to zero for all other years To measure the OP (degrees of freedom or trade openness) various criteria that can be applied to the following three criteria were used in this study.
FDI: the ratio of net foreign direct investment and real GDP (GDP) in constant prices in 1997, which is calculated as follows.

$$\mathrm{FDI} = \mathrm{FDI_{in}} - \mathrm{FDI_{out}}$$

FDI in: the ratio of FDI inflows to GDP
FDI out: outflow of foreign direct investment to GDP ratio (Source: World Bank Development Indicators, 2009, the foreign investment in Iran, 2009)
OP `: the sum of imports and exports of goods and services to real GDP (GDP) in 1997 is a fixed price. Source: Central Bank of the Islamic Republic of Iran's national accounts.
To test the research hypotheses in time series data between 1974-2012 are used to test the convergence and estimation of model Explanatory model with massive lag (ARDL) is used.

***Materials and Methods***

The purpose of this study is applied to the data required for this study documented method (library) collection it is. To test this hypothesis, the study of time series data is used in between the years 1974-2012.

In this test Convergence and explanatory model of their model with massive lag (ARDL) used's. The reasons for using this method are as follows.

Compared with other methods, including the method of convergence Johansen - Juselius (1990), the ARDL procedure is simpler and easier.

Unlike other methods, this method converges in the limit to the degree of integration variables, model no.

Unlike other the convergence of the methods in small samples ARDL approach leads to reliable results and is coefficients (Magnos and Foso, 2006).

In this way a long-term relationship with respect to the short-term dynamics are estimated.

Model

In this section, to demonstrate the impact of liberalization and foreign direct investment and its impact on economic growth using model estimation is carried out.

Estimates of long-term relationships

Then the long-term relationship is estimated that the results of these estimates in the table below. The results are summarized as follows.

$$LnY_t = C + \alpha_1 LnL_t + \alpha_2 LnK_t + \alpha_3 FOP_t$$

Coefficient -0/31 0/37 0/41 0/14 (9)

St.E 0/63 0/071 0/052 0/025

Overlapping effects of economic openness and foreign direct investment (FDI * OP) is positive in the long-term economic growth as well as an improvement in the degree of economic openness and foreign direct investment (FDI) and economic growth will be 0 / 15 Will Drsdafzaysh. Overlapping effect relationship is significant at the 90% confidence level and the effect of capital stock on economic growth is positive and significant effects. After two years, the effect is significant. Foreign direct investment can be achieved through the creation of a competitive environment, increased investment, transfer of technology and knowledge effects on productivity and labor domestic Bngahay positive impact on the domestic capital stock And leave as 0/37% level of real GDP in the long-term growth and its impact on economic growth show. - According to Article 1, the total effect of the interaction of FDI and liberalization (OP1) growth is calculated as follows:

$$\frac{\partial LnY}{\partial FOP} = \alpha_3 \tag{10}$$

$$\frac{\partial LnY}{\partial FOP} = 0.14$$

As can be seen by considering the effect of FDI interaction of the trade regime, the positive economic growth and meaningful. The results with the results obtained in the experimental studies carried out by Kohpaybon (2003) ( Kohpiboon, Archanun,2003), Atbkbo (2004), Magnus and Fosyo (2006) is consistent.

Given these results, it concludes with results Kohpaybon (2003), Atbkbo and colleagues (2004), Mnsoury (2005) and Hosseini and Mowla'ii study (2006) is compatible.

***Goodness of Fit Test and Autocorrelation***

Indicates that the regression fit well here with 0/99680, which means that it represents a good model Fitting and Camera Test - Watson suggests the presence or absence of serial autocorrelation in the model. According to the Watson camera 2/2716 can be partly the absence of serial autocorrelation in the model is said to be significant F test the coefficients indicate the amount is significant at 95% confidence level.

Estimate the model using separate the effects of foreign direct investment and trade liberalization

Also estimate the model using separate the effects of foreign direct investment and trade liberalization under the functional model results is as follows.

$$Ly_t = C + \alpha_1 LL_t + \alpha_2 LK_t + \alpha_3 FDI_t + \alpha_4 OP$$
$$OP = OP2 + OP3 \quad (11)$$

***Convergence Tests***

Estimates of long-term relationships

Then the long-term relationship is estimated that the results of these estimates are given in the table below, these results are inconclusive. - The effect of economic openness to foreign direct investment and foreign direct investment can help through Increased productivity and increased production resources on the development of trade and economic openness has a significant positive effect in the long run, but Effects of economic openness and economic growth is greater than the effect of foreign direct investment, even in the long stretch of Towards a stretch of more economic openness towards foreign direct investment and openness of the economy and faster economic growth and more foreign direct investment. Entry of foreign direct investment can be achieved through the creation of a competitive environment, increased investment, transfer of technology, knowledge-intensive work Bngahay productivity of domestic labor on the domestic capital stock positively affect the size 0/29%, Represents the level of real GDP in the long-term growth and its impact on economic growth show. - According to equation (13), the effect of FDI liberalization (OP1) growth is calculated as follows:

$$\frac{\partial LnY}{\partial FDI} = 0.115 \quad (12)$$

$$\frac{\partial LnY}{\partial OP} = 0.23$$

As can be seen by considering the effect of FDI regime, the country's commercial, economic growth is positive and significant. This Results with the results of experimental studies conducted by Kohpaybon (2003), Atbkbo (2004), Magnus and Fosyo (2006) is consistent.

Ly= 1.9+ 0.43LL+0.29LK+0.115FDI+0.23OP (14)

According to these results the conclusion Kohpaybon results (2003), Atykyo and colleagues (2004), Mansoury (2005) and Hosseini and Mowla'ii study (2006) is compatible.

***Goodness of Fit Test and Autocorrelation***

2R shows the regression fit well here with 0/99730 is that it indicates that the model the fit is good and the camera test - Watson suggests the presence or absence of serial autocorrelation in the model. According to The d. Robin Watson 2/2765 can be repeated for spatial autocorrelation in the models stated in the absence of a significant F test the coefficients indicate the amount is significant at 95% confidence level.

## RESULTS AND DISCUSSION

***Result***

In the neoclassical growth theory, foreign investment, capital transfers and compensation due to the investment and the deficit savings gap Balance of payments as well as creating tax revenues and employment in the host country, the host country will increase production levels. At The new growth theory, FDI through technology transfer and the transfer of wealth creation in the stock of human capital spillovers R & D in the host country, not only the production but also affected the long-term economic growth. The effect of FDI on economic growth is not Metosql and such factors as the level of development of the host country, the host country's level of human capital, the level of financial and institutional development of the country Home and host country is closed trade regimes. Empirical studies by high Sebramaniyam (1999 and 1996) and Kohpaybon (2003) conducted Bhagwti assumption in many Developing countries have been confirmed in this study, in addition to the effect of FDI on growth, the effect of both FDI and Freedom And commercial growth in the economy for the years 2012 to 1984 Bhagwti hypothesis testing using Kohpaybon model (2003) is an exponential function check and is estimated using the ARDL (Autoregressive Distributed Lag) approach.

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The results show that the first hypothesis regarding the positive impact of trade liberalization to attract foreign direct investment and the assumption Second, based on the positive impact of FDI on economic growth is confirmed, this study confirmed the hypothesis Bhagwti placed.

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