

## **The Effect of Public Expenditures on the Relationship between Direct Foreign Investment and Economic Growth**

Roya Seifipour<sup>1</sup>

### **Abstract:**

Most studies have engaged in inspecting the effect of foreign direct investment or public expenditures on economical growth separately but the mutual effects between the variable was not considered. The outcomes of present study demonstrates that in developed countries, the enlargement of government size is because of forming proper infrastructures, health and public goods, which this fact causes the absorption of more investments and leaves more effect on economic growth. But in developing countries the enlargement of government due to the enhancement of governmental companies budget and also the lack of sufficient infrastructures, and political stability and countries changing of rules and regulations causes that the mutual effect of direct foreign investment and public expenditures on economical growth become negative.

**Key words:** Economic growth, foreign direct investment, public expenditure

**JEL Classification:** E62; F21; F43; H50; O40

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<sup>1</sup> Assistant Professor Islamic Azad University Central Tehran Branch (IAUCTB)  
Email: rseifipour@yahoo.com

## 1. Introduction

The accumulation of capital is considered theoretically as one of the fundamental prerequisites for the process of economic growth which can be provided either from local or international financial resources (savings). International financial resources are not only the supplement for local saving but also cover saving -investment gap.

The influential channels of foreign direct investment on economical growth are the transfer of technology and the enhancement of human resource efficiency. The economic growth can be formed through the expansion of technology from different channels such as: the transfer of idea, new technologies and know-how. Exportation of high-tech products, acceptance of foreign technology and acquiring moderate human resource are important channels for the international expansion of technology, so we can say that direct foreign investment through the promotion of technology causes economic growth rather than the increase in the accumulated capital of the host country (Findly (1978), Wang (1992), Kinoshita (1998)).

Also there is a supplementary connection between foreign direct investment (FDI) and human resource (HR); there is mutual relationship between effect of FDI and the level of the HR in the host country i.e., FDI is more effective than local investment even at the time in which the host country HR is lower than the minimum threshold. Hence, there is a very strong relationship between direct foreign investment, economic growth and human resource (Levin & Renault (1999), Bengoa & Sanches-Robels (2003), Balasubramanyam et al (1999), Bornstein et al (1998)). Blomstrom et al. (1994) report that FDI exerts a positive effect on economic growth, but that there seems to be a threshold level of income above which FDI has positive effect on economic growth and below which it does not. The explanation was that only those countries that have reached a certain income level can absorb new technologies and benefit from technology diffusion, and thus reap the extra advantages that FDI can offer. Previous works suggest human capital as one of the reasons for the differential response to FDI at different levels of income. This is

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because it takes a well-educated population to understand and spread the benefits of new innovations to the whole economy. Borensztein et al. (1998) also found that the interaction of FDI and human capital had important effect on economic growth, and suggest that the differences in the technological absorptive ability may explain the variation in growth effects of FDI across countries. They suggest further that countries may need a minimum threshold stock of human capital in order to experience positive effects of FDI. Balasubramanyan et al. (1996) report positive interaction between human capital and FDI. They had earlier found significant results supporting the assumption that FDI is more important for economic growth in export-promoting than import-substituting countries. This implies that the impact of FDI varies across countries and that trade policy can affect the role of FDI in economic growth. In summary, UNCTAD (1999) submits that FDI has either a positive or negative impact on output depending on the variables that are entered alongside it in the test equation. These variables include the initial per capita GDP, education attainment, domestic investment ratio, political instability, terms of trade, black market exchange rate premiums, and the state of financial development. Examining other variables that could explain the interaction between FDI and growth, Olofsdotter (1998) submits that the beneficiary effects of FDI are stronger in those countries with a higher level of institutional capability. He therefore emphasized the importance of bureaucratic efficiency in enabling FDI effects.

The proper function of direct foreign investment in some developing countries (especially south-eastern countries), has inclined most of these countries to use direct foreign investment as much as possible. Now there is a fundamental question that what specialties should have the host country that the effect of foreign investment becomes more on economic growth. The conditions or specialties which a country should have for absorption of direct foreign investment can be categorized in groups of economical and political structures, encouraging and supporting factors, geographical and

ecological conditions of the country.

Whenever economical policies playing in the host country is in the course of making open and stabilized economical atmosphere, the rate of the risk of the investment decrees, consequently the flow of direct foreign investment to that country enhances. The economical structure of the host country i.e., stability of trade balance, market size, foreign debt, financial guarantee structure, infrastructure foundations and the presence of informing networks have considerable importance in absorption of direct foreign investment. These factors are attainable inner the protection of efficient government, so the role of government in presenting proper political package and providing necessary atmosphere for absorption of direct foreign investment has paramount importance. The main purpose of this article is to contribute more empirical evidences which can be used as guidance for building up a growth model that structures the linkages between FDI and public expenditures in determining the long-term economic growth rate. Geographical condition of the host country and political stability of that country is also effective in the absorption of direct foreign investment.

## **2. Review of Literature**

There is an extensive literature examining the impact of public expenditures on economic growth. As one of the government's instruments together with taxation and welfare policy, public expenditures are claimed as "the most powerful economic agent in all modern societies". Some economists believe that while government consumption has a negative effect on economic growth, government investment can be considered as one of its important beneficial factors (Aschauer, 1989; Barro, 1991; Easterly and Rebelo, 1993; Gupta et al., 2002; and Turnovsky, 2004). In contrast, many others claim a negative linkage between economic growth and government spending or find a no robustness relationship between these two factors (Devarajan et al., 1996; and Folster and Henrekson, 2001).

The literature of FDI study is not much controversial as economists believe that FDI has a positive impact on the technology upgrading

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progress of the recipient country and its economic growth eventually.

Balasubramanyam ET. al. (1999) in their study of effective factors on economic growth for 46 developing countries during 1974-85 found out that market size, competitive conditions related to the local producers and interaction term between direct foreign investment and human resource has considerable effect on growth. And also direct foreign investment in countries which follow export promotion policies has more effect rather than those countries which follow substitution import policies.

Zubaidi, Abdul Malik (2005) in a study for a group of Asian countries (Malaysia, Philippines, Singapore, Thailand, Korea, China, and Fiji), in a period between 1982-2001 came to this conclusion that long-term debt and direct foreign investment play important role in exiting of crisis in the eastern countries of Asia. Also in the process of estimating of economic growth model, local saving and foreign direct investment, both have the positive effect on economic growth.

Lee and Sarooga (2005) studied the mutual role effect of direct foreign investment and public expenditures on economic growth for 105 developed and developing countries in 1970-2001. The outcomes of the study show that high public expenditures prevent the profitability of direct foreign investment. But the effect of mutual connection between these two variables is approved in increase of economic growth rate for developed countries. In developing countries if the portion of current expenditures is more than 25 percent, the effect of direct foreign investment on growth would be negative.

Performed researches in Iran about the effect of direct foreign investment on economic growth are as follows:

Mahdavi (2004) declares in a study that flexibility of productivity structures and investment absorption power in the host countries and also the intense need of these countries to foreign financial sources are considered as the most effective factors on the rate of effectiveness of direct foreign investment on the economic growth of the host country.

The studies of Najarzadeh and Malek (2005) on the countries of Indonesia, Malaysia, Venezuela, Saudi Arabia, and Iran shows that direct foreign investment has positive effect on economic growth. Also this effect is influenced by the human resource and the extent of economic openness of the host countries.

Husseini and Molaei (2006) in a study demonstrated that the effect of direct foreign investment on economic growth of Iran had been positive for period of 1996-2002 and human resource also strengthened it. Also the increase of inflation rate, tax and public expenditures decreased the positive effect of direct foreign investment on economic growth in Iran.

The question of which factor, FDI or public expenditures, plays a more important role in promoting economic growth has been rarely touched because most of the existing theoretical and empirical studies have examined the effects of these factors on economic growth separately. The aim of this paper is considering the interrelationship of FDI and public expenditures in determining the economic growth rate.

### 3. Economic Growth Model

In this section, an economic growth model with the perspective of endogenous growth models will be presented which considers the economic growth, influenced by factors beyond physical investment.

The economic growth model is as follows:

$$y_{it} = \alpha + \beta X_{it} + \gamma Z_{it} + u_i + \varepsilon_{it}$$

In which  $Y_{it}$  is the economic growth of the country (i) at the time (t),  $X$  the vector of the variables of physical investment rate and human resource and  $Z$  is the vector of variables which are the estimation of governmental policies or economical and social structures. The error sentences of (u) and ( $\varepsilon$ ) are orderly the error sentences related to the countries of (i) and error sentences of countries at different times (it).

To show the effect of government size on foreign investments absorption, we use the research conducted by Lee and Sarooga (2005). In this research, economic growth is considered as a function of public expenditures and direct foreign investment and the mutual variable from direct foreign investment and public expenditures. Besides the

variables, local investment and inflation rate and the volume of trade are also used which are defined as  $Z$  variables.

In the first section the used variable in the model will be introduced. In the second section, we will deal with the comparison of considered variables condition in developed and developing countries. The last section is allocated to assessment of outcomes of acquired economic growth.

### **3.1. The Research Data**

In this research data of 85 countries are considered for the period 1980-2008. The countries are divided in two categories: developed and developing countries, among which 30 countries are developed and 55 countries are developing countries. (The list of the countries is available as attachment).

The used data in the model are as follows:

- 1) Per-capita GDP growth: this variable is accounted by using the given data of actual per capita GDP for the typical countries.
- 2) Inflation: this variable is calculated by using the adjusting indicator of GNP and is shown in percentage for all the countries.
- 3) Government expenditures: this variable is the total expenditures which the government spends. This data is divided on actual GDP and is presented in the form of percentage.
- 4) Investment: The growth of actual gross domestic capital formation is considered as an indicator for investment.
- 5) Import and export: these two factors are considered in the model as the criteria to demonstrate the trade volume and the extent of economic openness of a country. The volume of trade is considered as a ratio of the total import and export on real GDP and is stated in percentage.
- 6) Foreign Direct Investment: the ratio of direct foreign investment to real GDP is used to show this indicator and stated as percentage.

The used data in this article have been extracted from world development indicators (WDI) and international financial statistics (IFS).

### 3.2. Economical Growth Regression Model

To test the hypothesis of the research, the studies countries are categorized in two groups of developing and developed countries. Therefore two models for each category are estimated by using panel data for the period 1980-2008. To test the hypothesis of unit root data, we use ADF test. The outcomes of this test shows that in reliability level 95 percent all data are I(0) by ADF test. So we can use the level of data.

The simplest poolability test has as its null hypothesis the OLS model

$$y_{it} = \alpha + \beta X_{it} + v_{it}$$

and as its alternative the Fixed Effect(EF) model

$$y_{it} = \alpha + \beta X_{it} + \mu_i + v_{it}.$$

In other words, we test for the presence of individual effects. Formally one may write

$$H_0 : \mu_i = 0, i = 1, \dots, N.$$

Intuitively, one may consider the F statistic according to the construction principle

$$F = (ESSR - ESSU) / (N - 1) / ESSU / ((T - 1)N - K)$$

Here ESSR denotes the residual sum of squares under the null hypothesis, ESSU the residual sum of squares under the alternative. Under  $H_0$ , the statistic F is distributed as F with  $(N - 1, (T - 1)N - K)$  degrees of freedom. The two sums of squares evolve as intermediate results from OLS and from FE estimation. In empirical panels, this test will reject its null hypothesis like our work.

According to the considered economic growth model, the u error sentence can be estimates as a fixed or random effect. In fixed effect method, it has been supposed that the error sentences of countries are correlated with explanatory variables, but in random effect we suppose that there is not such correlation. To determine model estimation method with panel data, we use Housman Test, which tests the hypothesis of meaningful difference between fixed and random effects. In fixed effect method, the method of original least square (OLS) is used to estimate the model co-efficient and in random effect



method generalizing least square (GLS) is used. If the explanatory variables have no correlation with error sentence, both models produce compatible estimations but the estimation of fixed effect model is inefficient. Consequently, we should use random effect model. If there is correlation between error sentence and explanatory variables, the estimations of fixed effect model become compatible and the estimations of random effect model remain incompatible and we should use fixed effect model (Green, 2003).

Housman Test is done to determine regression equation estimating method with panel data. If the zero hypothesis is not rejected, there is no difference between the two methods of fixed and random effect. But if it is considered zero, it means that fixed effect method is better than random effect method. The outcomes of this test shows that in reliability level 95 percent of regression equation can be estimated by random effect method.

### **3.2.1. Economic Growth Regression Model for Developed Countries**

The regression outcomes, in accordance with panel model of developed countries which are presented in first column of table No. 01 are as follows:

The outcomes show that if investment growth enhances to the rate of 1 percent, the rate of per capita production growth enhances to 0.09 %. In this model inflation left negative effect on economical growth. It has been observed that if inflation increases to 1 percent, economic growth decreases to 0.39%.

Public expenditures also have positive effect on economic growth, in such a way that 1 percent increase in the ratio of public expenditures to production triggers 0.22 percent increase in economic growth. Research outcomes of Yasin (2000) shows that whenever public benefit accrued from public expenditures is more than the expense of private sector opportunities, the public expenditures can improve the overall efficiency in economy and provide the necessities of economic growth. Therefore, the public benefit accrued from public expenditures can be divided in two crowding effect and external

effects. In case of the lack of presence of external effects, the output of public production is less than private section production. By taking this to the consideration that public expenditures are provided from taxes, obtaining loans and facilities from central bank or sales of a national resource such as oil. If such resources are invested in physical side and human sources, tended towards the enhancement of efficiency and it can provide economic growth and development. On the other hand, if external effects of public expenditures are not considered, the more public expenditures, the more inefficiency in economic consequently less production and economic growth. He also believes that the concept of government size reveals this idea that the expansion of government and its role in economy accelerates the economic growth (of course growth accompanied by stability and equality) or hinders it? If the expansion of public sector activity (government) leads to the protection of economic infrastructure, economic organizations growth, encouraging investment for private sector, expansion of human resource accompanied by the enhancement of competition and economic efficiency and stability, the expected sign would be positive, but if it leads to the expansion of monopoly and the growth advantage taking activities, economic instability and insecurity and lack of efficiency, its effect on economy would be negative. In this group of countries, the enhancement of public expenditures is in the course of efficiency enhancement and provides the necessities of economic growth.

The co-efficient of foreign direct investment is positive and meaningful in this equation and its amount is estimated 0.303%. The mutual effect of foreign direct investment and public expenditures is positive. There are diverse economic and structural factors in these countries which directly affect the absorption of foreign direct investment and increase its effectively on economic growth including stability in trade balance, big size of the market, strong banking system with less corruption and bureaucracy, existence of vast economic infrastructure such as roads, ports, communication systems, strong information system which provides investors with up-to-date

info in regards to human resource, developments, rights and so forth. The groundwork of the infrastructures and strong informing network is existence of efficient government. So it can be concluded that as the government size increases, the effectiveness of FDI increases too.

The total volume of import and export to the actual local production is among the other effective variables on growth; its effect is reported in the table. In this model the effect of trade openness in economic growth of developed countries is estimated at 1.53 percent. Co, Helpman and Halffmister (1997) described the positive relation between international trade and economic growth in this way that international trade is an important factor for transfer of technology and consequently the growth of effectively of production factors.

### **3.2.2. Economic Growth Regression Model for Developing Countries**

The regression outcomes which are presented in the 2nd column of table No. 1 according to board model of developing countries are as follows:

The outcomes show that if the growth of investment increases to the rate of 1 percent, the overall production growth increases to the rate of 0.08 percent. In this model, inflation left negative effect on economic growth. It has been observed that if inflation is increased by 1%, economic growth is decreased by 0.49%.

Public expenditure also has negative effect on economic growth in such a way that 1% percent increase in the ratio of public expenditures to local production triggers 1.15% decrease in economic growth which is compatible with the outcomes of studies of Ashur (1989), Bro (1991), Easterly and Reblo (1993). So it means that the expansion of government expenditure leads to the expansion of monopoly and the growth advantage taking activities, the economic instability and insecurity and lack of efficiency, its effect on economy would be negative.

The co-efficient of foreign direct investment is negative and meaningful in this equation and it is estimated at -0.14%. In developing countries the lack of sufficient infrastructures, lack of political stability, continuous change of rules and regulations made

foreign direct investment to have negative impact on economic growth. The mutual effect of foreign direct investment and public expenditures is also negative. It means that the enlargement of government is due to the increase in public companies budget not the foundation of proper infrastructures. In such case the increase of the mentioned ratio causes the decrease of foreign direct investment absorption.

The total number of import and export on actual inner production is among the other effective variables on growth which its effect is reported in the table. In this model the effect of trade openness on economic growth is estimated 0/6 percent for such countries.

**Table No.7: the accrued outcomes from the estimation of economical growth with emphasize on direct foreign investment.**

Variable	Developed Countries	Developing Countries
Investment Growth	0.09 (2.3)	0.08 (3.3)
Inflation	-0.39 (-2.54)	-0.49 (-4.36)
Public Expenditures	0.22 (-3.6)	-1.15 (-2.53)
Foreign Direct Investment	0.303 (1.80)	-0.14 (-3.9)
Import and Export	1.53 (-3.27)	0.6 (-1.36)
Direct Foreign Investment * Public Expenditures	2.71 (2.56)	-0.45 (4.56)
R2 , Adjusted	0.62	0.57

Absolute value of t statistics in parentheses

#### 4. The Chapter's Results

Studying the effective factors on foreign direct investment has paramount importance, since in such way we can enhance the rate of its effectiveness on economic growth. Among the effective factors to

absorption of foreign direct investment in the host country we can address to:

Economic structure from trade balance stability point of view, the big size of the market, strong banking system with less financial corruption and Bureaucracy, the presence of vaster economic infrastructures such as roads, ports, communication systems, the presence of strong information system which provides investors with precise and latest data to investors about man power, constructions, privileges and so forth.

The necessity of the presence of some of these factors such as proper economic infrastructures and strong information network is the existence of efficient government.

Now here comes this question: "Does the absorption of foreign direct investment depend on the size of the government? Therefore, the aim of the present study is to see how the increase of government size affect the relationship between foreign direct investment and economic growth in developed and developing countries.

Hence, economic growth is considered as a function for the rate of inflation, government size, trade openness, the growth of foreign direct investment, the growth of local investment and mutual variable of foreign direct investment and public expenditures. The considered equation was done by separating developed and developing countries in panel method. The coefficient of inflation rate, trade openness, and investment growth in developed and developing countries are in accordance with the theory. The coefficient of considered public expenditures and mutual variable is positive in developed countries which demonstrates the enlargement of the government and it is due to the foundation of proper infrastructures, health and the formation of public goods and strong informing system which causes more absorption of foreign investment and consequently more effectively of economic growth. But in developing countries the effect of considered public expenditures and mutual variable is negative which means that in these countries the enlargement of government is due to

the increase of public companies budget and also lack of sufficient infrastructures, lack of political stability and continuous change of rules and regulations which results in negative impact of FDI on Economic growth. In such case the increase of the mentioned ratio causes the decrease of foreign direct investment absorption.

**Persian Refrences:**

- 1.Hosseini, Safdar, Molaie, Morteza(2006). The Effect of Direct Foreign Investment on Economical Growth in Iran. Quarterly Journal of Economical Research. Summer. PP: 57-80.
- 2.Mahdavi, Abolghasem(2004). Analyzing the Role of Foreign Investment on Economical Growth. No.66. PP: 118-208.
- 3.Najarzadeh, Reza, Maleki, Mehran(2000). A research on the Effect of Direct Foreign Investment on Economical Growth by the Emphasis on Oil Exporting Countries. Quarterly Journal of Iran Economical Research. No.23. Summer. PP: 147-163.

**English Refrences:**

- 1.Ahmad Zubaidi, Marwan Abdul Malik( 2005). Foreign Capital Flows and Economic Growth in East Asian Countries.
- 2.Aschauer, DA. (1989). "Is Public Expenditure Productive?" Journal of Monetary Economics 23, 177-200.
- 3.Aschaur, D.A. (1998). Does Public Capital Crowd Out Private Capital?. Journal Monetary Economics. No.24. PP: 171-188.
- 4.Balasubramanayam, V.N; salisu, M.; and Dapsoford, D. (1999). Foreign Direct Investment as an Engine of Growth. Journal of International Trade and Economic Development. Vol.8 (1). PP: 27-40.
- 5.Barro, R.J. (1991). Economic Growth in a Cross Section of Countries. Quarterly Journal of Economics. Vol.106 (2). PP: 407-443.
- 6.Bengoa, M. & Sanchez-Robles, B. (2003). Foreign Direct Investment, Economic Freedom and Growth: new Evidence from Latin America. European Journal of Political Economy. Vol.19 (3). PP: 529-545.
- 7.Borensztein, E., De Gregorio, J., and J.W. Lee. (1998). How Does Foreign Investment Affect Growth? Journal of International Economics. Vol. 45.
8. Coe, D., E. Helpman and A. Hoffmaister (1997). North South R& D Spillovers. Economic Journal. No.107. PP: 134-149.

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9.Devarajan, S., V. Swaroop, and H. Zou. (1996). The Composition of Public Expenditure and Economic Growth. *Journal of Monetary Economics*. No.37,313-344.

10.Easterly, W. and Rebelo, S. (1993). Fiscal Policy and Economic Growth: An Empirical Investigation. *Journal of Monetary Economics*. No.32. PP: 417-458.

11.Findlay,R., (1978). Relative Backwardness, Direct Foreign Investment and the Transfer of Technology: A Simple Dynamic Model. *Quarterly Journal of Economics*. Vol.92. No.1. PP: 1-16.

12. Folster, S. and M. Henrekson. (2001). Growth effects of government expenditure and taxation in rich Countries. *European Economic Review*. No. 45, 1501-1520.

13.Gupta, S., B. . Clements, E. Baldacci, and C. Mulas-Granados. (2002). Expenditure Composition, Fiscal Adjustment, and Growth in Low- Income Countries. *IMF Working Paper*, NO. 02/77

14.Kinoshita, Y. (1998). Technology Spillover through Foreign Direct Investment. Unpublished working paper. Prague.

15.Le, M. & SURUGA, T. (2005). The effect of FDI & Public Expenditure on Economic Growth: From Theoretical Model to Empirical Evidence. *GSICS Working Paper Series*. No.2.

16.Levine, R., and D. Renelt. Sensitivity Analyze of Cross- Country Growth Regressions. *American Economic Review*. Vol. 82. No.4. PP: 63-942.

17.Turnovsky, S. J. (2004). The Transitional Dynamics of Fiscal Policy: Long-Run Capital Accumulation and Growth. *Journal of Money, Credit and Banking*. No 36, 883-910.

18.Wang, J. Y. and Blomstrom (1992). Foreign Direct Investment and Technology Transfer: A Simple MODAL. *European Economic Review*. No. 36,137-155.

**The List of the Countries According to the Considered Categorization  
Developed Countries:**

Canada- Swiss- China- Germany- Spain- Finland- France- England- Italy- Japan-Malaysia- The Netherlands- New Zealand- Portugal- Sweden- United States- Denmark.

**Developing Countries:**

Burundi- Belgium- Benin- Burkina Faso- Bangladesh-Bolivia- Central Africa- Ivory Coast- Cameron- Colombia- Costa Rica- Republic of Czech – Republic of Dominica- Ecuador- Estonia- Gabon- Ghana- Gambia- Guatemala- Honduras- Hungary- Iran- Jamaica- Kenya- Sri Lanka- Lesotho- Lithuania- Luxemburg- Latvia- Morocco- Madagascar- Mali- Nigeria- Nicaragua- Pakistan- Panama- Peru- Philippines- Poland- Paraguay- Rwanda- Senegal- Sierra Leon- El Salvador- Republic of Slovak- Slovenia- Syria- Chad- Togo- Uruguay- Venezuela- Zimbabwe- Tunes- Mexico- Chili- Cyprus- Thailand- Austria- Algeria- India- Egypt- Greece- Ireland- Iceland.

**Table No.1: Unit Root Test for Developed Countries**

Variable	ADF
GDP per capita growth	16.8
Investment growth	120.7
Inflation	154.9
Public expenditure	20.12
Foreign direct investment	36.4
Import & export	12.35

**Table No.2: Unit Root Test for Developing Countries**

Variable	ADF
Gdp per capita growth	24.38
Investment growth	207
Inflation	154.9
Public expenditure	20.12
Foreign direct investment	36.4
Import & export	12.35

**Table No.3: F Test for Developed Countries**

SSR Pool	SSR Fixed	F
25396.25	24167.37	2.392



**Table No.4: F Test for Developing Countries**

SSR Pool	SSR Fixed	F
18415.7	17524.5	2.449

**Table No.5: Husman Test for Developed Countries**

Test Summary	Chi-Sq. Statistic	Prob
Cross-section random	9.4536	0.023

**Table No.6: Husman Test for Developing Countries**

Test Summary	Chi-Sq. Statistic	Prob
Cross-section random	8.5678	0.045

**Table No.7: the accrued outcomes from the estimation of economical growth with emphasize on direct foreign investment.**

Variable	Developed Countries	Developing Countries
Investment Growth	0.09 (2.3)	0.08 (3.3)
Inflation	-0.39 (-2.54)	-0.49 (-4.36)
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