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# An Empirical & Theoretical Study about the Effects of Tariff on Economic Growth

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## Abstract

One of the methods for studying the relation between economic growth and international trade is considering the effects of tariff on economic growth. The neo-classical economists believe that free trade not only has significant benefits for every country but for all in the world, therefore, they are seeking for laterally and multi-conceptual omission of trade restrictions and advise on the countries with taking into consideration of specialization to do their best in production and international division of labor with little interferences of government in international trade.

In this paper and in order to show the effects of tariffs on economic growth, at first we maximize the household utility function in a neo-classical model. The period of our study is from 1961 up to 1998 lunar. The effects of tariff on economic growth have been considered in two different scenarios. In the first scenario, we assume that exogenous technological progress rate is equal to 2% and depreciation exchange rate is equal to 10%. In the second scenario, the exogenous technological progress rate is 2% and depreciation rate is 5%. The results of both confirm that any trade restrictions may result to a reduction in economic growth rate. In this manner, the effect of tariff rate on economic growth in post-revolution period in comparison with pre-revolution one has decreased due to the result of reduction in degree of openness and reduction of population growth rate. On the other hand, any lower depreciation rate may have a negative effect on economic growth.

**Keywords:** Economic Growth, International Trade, neo-classical Model, Openness, Tariffs, Technological Progress Rate, exchange rate depreciation..

## 1-Introduction

The relation between economic growth and international trade has been considered in the international economics literature through studying the effects

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## 1-Introduction

The relation between economic growth and international trade has been considered in the international economics literature through studying the effects of tariffs on economic growth. Rebel[1] (1991), Lucas[2] (1988), Thomas Humphrey[3] (1987), Harrison[4] (1991), Greenway[5] (1983), Edwards[6] (1989), Jong-Wha-Lee[7] (1992) and many others have deeply considered different aspects of the relation between economic growth and international trade and revealed the effects of trade distortions on economic growth.

Those neo-classical economists believe that free trade may not only be an engine for economic growth for one country, but for all in the world, therefore, they are seeking for laterally or multilaterally omission of trade limits and they advise that all countries should manage for international trade with the minimum interferences of government and with taking into consideration of specialization in production and international division of labor. On the other hand, some economists such as Kaldor[8] (1940), Graff[9] (1949) and many others disagree with the above-mentioned ideas and by presenting an optimum tariff, claim that establishment of optimum level of tariff have a lot of advantages for the country hereto. "Optimum tariff" is an amount of tax, which improves the terms of trade, and neutralize the negative effects due to some trade restrictions, and maximizes the benefits of trade for that country. In this case, free trade is not necessarily the best trade policy[10].

Although some primary neo-classical economists such as Stewart Mill managed for maintaining the "Optimum Tariff", but disagreed with it seriously

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1 - Rebel, Sergio, "Long Run policy Analysis and Long Round Growth". 1991.
2 - Lucas, Roberto, "On the Mechanics of Economic Development", 1988.
3 - Humphrey, Thomas, "Classical and Neoclassical Roots of the Theory of Optimum Tariffs", 1987.
4 - Harrison, Ann. "Openness and Growth: A Time-Series, Cross-Country Analysis for Developing Countries", 1991.
5 - Greenway, David, Trade Policy and the New Protectionism, 1983.
6 - Edwards, Sebastian, "Openness, Outward Orientation, Trade Liberalization and Economic Performance in Developing Countries", 1991.
7 - Jon-Wha-Lee, "International Trade, Distortions, and Long-Run Economic Growth", 1992.
8 - Kaldor, N. "A Note on Tariffs and the Terms of Trade", 1940.
9 - Graff, V.J., "On Optimum Tariff Structures ", 1949.
10 - Alireza Rahimi Boroujerdi, "The contemporary International Trade Relations, Theories & Policies", Islamic Azad University, 2004, Page 356.

and stated that such tariff cause to increase some recompense tariffs and secondly it reduces the trade volume while it is neutralizing the transfer relation in early recovery and finally it negatively affect on welfare and economic growth significantly(1).

In this paper, we present an empirical and theoretical study about the effects of tariff on economic growth. The hypothesis in this paper is that tariff in Iran may reduce the economic growth. The goal of this study may not end with only reasoning the ideas of neo-classics about the importance of free trade and also we may expect that all economic policy makers benefit from the results of this paper in lower qualitative and quantitative limitations at the time of regulating the commercial policies. The anticipated model in this paper is a neo-classic one in which by maximization the household utility function, by maintaining a commercial model in two different scenarios it would be possible to study the effects of tariff on economic growth during the period of 1961 – 1998. The remainder of the paper is organized as follows:

After the preface, we consider the theoretical foundations. In this part and due to some common reasons for protective policies, we discuss the reasons for benefiting from free trade policies and the effects of tariff on economy. The third section has been allocated to the methodology and presentation of a model and in the final part of it we bring summary and concluding remarks.

## 2- Theoretical Bases

Nowadays, all economists have a great attention to the interfering role of government in total economic performance. There is a question, which the most economists seek for its answer in the field of international economics, and also about the relation between the unrestricted trade and economic growth. The question is whether any trade without government interference and distorted policies is a result of effective economic growth? Even some powerful witnesses about the positive and great relation between the free trade and economic growth could not also make clear any vague points and find a convincing answer for the mentioned question. The reason for presence of such vague points is the theoretical defect in explaining the relation between trade and trade strategy with

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1 - J.S.Mill, Essays on Some Unsettled Questions in Political Economy, 1844.

economic growth and the theoretical base of the relation between unrestricted trade and economic growth was always a fragile one[1].Also, a great number of theoretical anticipations about the relation between free trade and economic growth are vague. All tariffs cause to increase or decrease the economic growth due to this fact which part of economy is considered for being protected by them. In fact, those international economics theories are not completely clear and decisive. It is in a way that all experimental witnesses about the relation between trade policies and sustainable economic growth may be difference and vague[2] due to the type of industry and also country and those partial studies may not show any economic scale effect out of trade on economic growth. [3]

On the other hand, the theory of classics and neo-classics in the literature of international economy confirm that some trade distortions out of governmental economic policies, cause economic growth rate and per capita income to go out of the way and deviate from it through a process of one long-term transitional period. In addition to the mentioned literature, we can say that the effects of trade distortions on economic growth rate should depend upon the trade degree of freedom that can be shown by the import share in domestic gross production amount. Therefore, it is possible to result that those economic policies which can cause some trade distortions, should cause a lot of losses for those countries with resource-scarce in comparison with those with resource-abundant.

In their studies, neo-classic economists show that even some small trade distorted which the government can create on the way of transactions and international negotiations could specifically cause to reduce the productivity of capital and as a result a reduction in economic growth in a short-time transitional period. Also some trade distortions, which can create by the governments and governmental economic policies through establishing tariffs and exchange rate control, can cause a considerable reduction in those countries, which need highly to import[4]."Jong-Wha-Lee" has presented in his study some experimental findings for proving the relation between the trade distorted and economic growth by the use of cross section of data on 81 countries through the years

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1 - Jon-Wha- Lee, (1992), PP. 2-3.
2 - Havrylyshyn, Oil, (1990). PP. 1-24.
3 - Ibid.
4 - Jong-Wha-Lee, (1992), PP.5.

1960- 1985. His experimental results confirm this point that tariff rates on importing the foreign raw materials and black market rents (in term of prices) have considerable and negative effects on growth per capita income rate. For example, in a developing country, which its import rate includes about 20% of gross national product in an unrestricted trade situation, those distorted trade policies, such as 25% tariffs along with 50% rents in black market, reduce the economic growth rate about 1.4 % per year(1).

Those neo-classic economists believe that establishment of tariff and benefiting from protective policies by the small country can cause to increase the price of imported goods, reducing of domestic consumption, increasing domestic in-efficient production, decreasing the import, establishment of new incomes for government, distribution of income and creation of inefficiency which are known as protective costs. On the other hand, establishment of tariff by a large country can cause to reduce trade volume and improves the terms of trade. The reduction of trade volume can cause to reduce the real income and welfare and improvement of the terms of trade can cause to increase the real income and welfare. The net effect of these two items on welfare and economic growth, are the maintaining factors of increase, reduction and or remaining unchanged of welfare and large country's economic growth. But due to the fixedness of the terms of trade and reducing trade volume in small country, establishment of tariff can always cause to reduce the welfare and further economic growth(2).

Following the consideration of theoretical basics, we manage to consider the current reasons for protective policies and benefiting from free trade policies:

## 2-1-Current Reasons for Protective Policies and Benefiting from Tariff

There are different reasons by those defenders of protective policies regarding the use of tariff policies. In continuation of this study we will consider some of them. (3)

1 - Ibid, PP. 12-20
2 - Alireza Rahimi Broujerdi, (1995), PP 367-9.
3 - For more study and considerations, refer to previous source, pp. 379-390.

### *A-Optimum Tariff*

If a country is somehow large enough in order to have effect on worldwide markets, establishment of tariffs could improve "terms of trades" in the said country and neutralize un-suitable effects on price and consumption. "Optimum tariff" is an amount of tax, which can improve the terms of trade and neutralizes negative effects on trade restriction, and maximizes the benefits of that country. In this case, free trade could not necessarily be the best policy. "Optimum tariff" improves the terms of trade, but reduces the trade volume and or causes to create some consumption & production costs that it goes fast in large country along with a lot of benefits. Therefore, increasing the welfare of society would be possible through improvement of the terms of trade by establishment of tariffs. We can show the optimum tariff by the use of diagram 1. (1)

### *B- Infant Industry Arguments*

Every new production agency in an infant industry can be involved with different problems .The said agency should supply the specialist "management" and "Labor force" and or train them, in order to learn some new techniques, try for creation or entering into relevant markets with their own products, passes those "Diseconomies of Scale" and find some ways for reducing production cost. Benefiting from tariff policies create pricing protection for infant industry in the country and support and compensate it against foreign industries.

### *C-External Economies*

External Economies are those production benefits, which may not allocate to private company. Those external economies include of technology training, labor force training and proficiency, supplying productive inputs with low costs for other industries. The mentioned items may not allocate only for private investor since the whole society benefit from it. Therefore, if an industry could create some external economies, the government could benefit from protective policies for that industry and for the mentioned reasons.

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1 - Ibid, 356 -361.

***D-Technology Import***

Since in our present world any benefiting from "International specialization" is more basing upon technological gaps among the countries, some developing countries with lack of advanced technology can use of tariff policies for industrial goods in order to attract foreign investment and benefiting from their advanced technology for production of such goods. In order to make use of domestic market and passing the "Tariff Wall" which has been created by the developing country, besides of technology & capital transfer to that country, foreign investors provide conditions in which the average cost of production of good is lower than those countries which are producer of that.

***E- Improving Employment & Balance of Payments***

Any increase in tariff rate would change the demands for imported goods into domestic manufactured goods (Substitute goods) and as a result there would be an increase in trade balance, total demand and employment.

***F- Protecting the Labor Force & Price of Domestic Goods***

Establishment of tariffs support internal labor force against foreign one and also make equal the price of cheap imported goods with the price of domestic ones.

***G- Creating Revenue for Government***

Tariff incomes usually are one of the main revenue sources for governments. In fact, tariffs in small countries could be somehow an important revenue source rather than bearing any protection role for domestic industries.

***H- Improvement of Terms of Trade***

It is possible to see the recovery of trade by transferring the offer curve after tariffs. Of course it is necessary to note that the effect of tariff on terms of trade depends on manner of tariff establishment and offer curves elasticity.

***I- Anti-Dumping:***

When there is persistent damping and subsides for foreign imported goods, the countries establish tariffs for protecting the domestic industry and for differences between domestic and foreign prices.

***J-National Security***

Most of the developing countries use tariffs for supporting of producing those goods which make problems for national security. In this way, what should be noted is that any reduction of dependency to resources and foreign goods face with distortions at the time of war or economic sanctions. In this condition, the country manages to make use of protective policies for renovation of production capacities of mentioned goods.

On the contrary of the above mentioned reasons which bear serious disagreement of classic and neo-classic economists, there are different reasons for make use of free trade in economic literature which we can present as follows:

## 2-2- Current Reasons for Make Use of Free Trade Policies

The abstract of discussions made by defenders of free trade is that it causes a real income and welfare for all involved countries with trade, which in itself leads to "division of labor" in the international level and then an increase in production of goods. Some of reasons for free trade are as follows:

***A-Trade Is Usually Profitable***

It is obvious that if the importer and exporter of a good manage for buying & selling any good freely, there is exactly a good profit in it. If the exporter or importer could manufacture and supply the good with a better price in their own country, naturally they will both refer to domestic markets instead of foreign ones.

***B- Trade Is Supplier of Efficiency***

Continuous competence among domestic manufacturers makes them to seek new production methods for recovery of their products and also reducing the costs of their products. Free trade causes to benefit from new production techniques and presenting better effective services to the end users.

***C-Trade Has "Training" Effect with Itself***

Free trade has an educational effect since due to facing with foreign competence; all domestic manufacturers encourage making use of the latest technological advances which can be used in production process due to some

most complex techniques. Therefore, manufactures keep themselves "updated" and end users would have a better life with higher welfare.

In addition, all imported goods usually bring with themselves some new ideas, methods and cultures which make different people of different countries more close to each other from one side and also cause reduction of political differences and similarity of " ideas" among nations from the other.

***D- Social Reasons of Trade***

Social reasons for foreign trade should be summarized as follows:

Those democratic truth governments do not defend from protective policies, which usually apply for political classes and ideological goals, and instead benefit from "Free trade". Those governments which appointed democratically by the people defend from free trade which bears the total welfare of society, instead of meeting the requirements of one beneficiary level of society.

Free trade leads to a hand-to-hand progress of "political unity", "national benefits" and "economic realism" in all the times along with creation of strong relation among them without any permission for placing the benefits of different groups of people in the society against each other.

Today it is not possible for countries to have only some political relations, since to have economic relations among the countries can cause to have great effects on their political relations along with prevention of probable wars seriously when they are "good customers" for each other. Trade relations among countries cause to increase sincere political relations among them with more attention to the international peace and security.

***E-Economic Reasons for Free Trade***

1- International trade creates this opportunity for the country to have "specialization" in those goods which in their production there is an involvement of present factors in the country with resource- abandon, and or in production of those goods which obtain "comparative advantage" due to create some technological gaps, production cycle, economic of scale, natural resources, human capitals and so on. Therefore, international trade lead the country toward exporting those goods that their production is "modern", "new" and "cheap" rather than other countries and also recommend the import of those goods,

which do not have the above-mentioned specifications. Therefore, trade increases the consumption and real income level of the country and cause to an increase in welfare level.

2- International trade for those countries with limited markets and high production cost would create an "economic of scale". Therefore, international trade enables those countries to make use of foreign markets which leads to have more smooth production and export and reducing their production cost via "economic of scale".

3- Since the trade causes an increase in national income, any demand for goods and services would also increase which lead to creation of "multiplier effects" in the total economic system. Any increase of income and demand for goods and services lead to increase of savings level and investments and employment. As a result, the increase in the investments through accumulation of capital and increase in employment level, not only lead to a motivation for an economic growth and development, but cause to have a stable growth and development.

4- International trade enables the country to increase its import level of capital goods, raw materials and other productive inputs, which are necessary for production process and cause an increase of economic capacities. Technology import, technical know-how and their resulted services from industrial countries to the developing countries is another advantage of free trade which leads to a motivation for an economic supply in developing countries.

5- International trade could motivated domestic production through competing in tradable goods and as a result reduces the quality of mentioned goods and reduces their prices. Creation of competence among tradable goods also leads to increase the efficiency of the goods and make domestic manufacturers to make equal their standards with the standard of those foreign or high quality goods.[1]

6- Free trade is an important tool for an international capital movement (besides transferring of management capabilities, specialization, proficiency, economic entrepreneurship, technical knowledge and ...) from developed

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1 - Keesing, D. (1969), PP. 1-30.

countries to the developing ones. Thus with greater international trade volume, there would be an increase in the volume of foreign capitals for involved countries with trade.

Free trade considers as the best anti-monopoly policy and a good guarantee for revival and keeping the competence in economic markets.(1)

## 3-Neo-Classical Model of International Trade

In this part we have a brief review of this model(2) and explain those variables in it:

### *3-1 A Brief Review of Model*

At first we maximize the household utility function by maintaining a neo-classical model of international trade:

$$u = \int_0^{\infty} u(C_t)\, L_t e^{-\rho t} dt \qquad (1)$$

Where C is the consumption per person, $\rho>0$ (a constant rate of time preference). The number of individual in the household would be specified by $L_t$ and increases through the time with an exogenous rate of n .In this economy, one good is produced through a neo-classic production function and it assumes that internal production in addition to domestic raw materials need to some foreign intermediate capital goods and new materials also. It assumes that all internal inputs (labor force and capital) compose with raw materials and intermediate imported foreign ones by Cub-Douglas production function and the total production produces by the use of production function and by constant elasticity of substitution (CES). Thus, the first order condition for profit maximization is as follows:

$$r_t = MPK - \delta = \alpha\, \hat{K}^{\alpha-1}[(1-\psi)h(z)]^{1/\sigma} - \delta \qquad (2)$$

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1 - Haberler, G. (1955), PP. 25-27

2- For further information refer to: Jon-Wha-Lee, "International Trade, Distortions, and Long-Run Economic Growth", 1992.

$$Pt = [\psi\, h(z)z-1]1/\sigma \quad (3)$$

$$wt = [\hat{q}\, t-\hat{K}\, t.MPK-pt\,\hat{m}\, t]ext \quad (4)$$

Where $r_t$ is the real rate of return on assets, $\sigma$ the elasticity between domestic inputs and imported inputs, MPK the marginal productivity of capital, $\delta$ depreciation rate , $P_t$ the relative price of foreign goods according to domestic one, $\psi$ the share of imported inputs in total output under a free trade regime, $W_t$ the real wage rate, $\hat{q} = Q/\hat{L}$ (Q is production, L is effective labor input ), $\hat{m} = M/\hat{L}$ (M is imported inputs), $Z = \hat{m}/\hat{K}^{\alpha}$ ( K is capital) and X (exogenous technological progress rate, $X > 0$). It is necessary to note that $h_z > 0$, $h_{zz} < 0$, $0 < \delta < 1$.

We assume that Pt can be maintained by worldwide market and in free trade; the price of foreign imported goods is equal to their domestic one. If the government follows free trade, it is possible to summarize the model for one equilibrium competitive market and in a steady-state free trade condition as follows:

$$\hat{K}^{*} = [\alpha(\delta + \rho + \theta x)^{-1}]^{1/1-\alpha} \quad (5)$$

$$\hat{y}^{*} = \hat{K}^{*\alpha} = [\alpha(\delta + \rho + \theta x)^{-1}]^{\alpha/1-\alpha} \quad (6)$$

When $\theta$ is the Constant Elasticity of marginal utility ($\theta > 0$), $y^{*}$ is steady-state level of out put effective worker and $\hat{K}^{*}(\hat{y}^{*})$ is the free trade steady-state capital stock per effective worker. When the economy is in free trade, the volume of importing raw materials in total out put ($\psi$) would not have a great effect on this steady-state condition. But upon any distorted in trade, the importing share becomes important along with appointing effects of trade on income. The following equations show the economy-timing path when the free trade faces with distortion and due to some different factors deviated from its natural path:

$$\dot{\hat{K}} = \hat{K}^{\alpha}\phi - \hat{c} - (x - \eta + \delta)\hat{K} + \hat{G} \quad (7)$$

$$\frac{\dot{\hat{c}}}{\hat{c}} = (\frac{1}{\theta})[\alpha\hat{K}^{\alpha-1}\phi - \delta - \rho - \theta x] \quad (8)$$

When:

$$\phi = [(1-\psi)h(\bar{z})]^{1/\sigma} = [(1+\pi) - \pi(1+\tau)^{1-\sigma}]^{1/1-\sigma} \qquad (9)$$

The parameter $\pi = \psi/(1-\psi)$ shows the share of imported inputs in the value added in free trade, which is a sign of a free trade openness and economy in free trade and depends upon to some economic structural aspects such as factor endowments or natural obstacles of free trade. The effects of trade distortion depend upon the change in income, steady-state equilibrium and speed of convergence ($\beta=(1-\alpha)(\delta+n+x)$ ). If the composition of internal and external materials assume in Cup-Douglas condition, distorted effect can be explain as follows:

$$\frac{-1(1-e^{-\beta T})}{T}(1-\alpha)^{-1}\pi.\log(1+\tau) \qquad (10)$$

When T is time and $\beta$ is convergence speed.( $\beta>0$ ) the empirical studies show that convergence speed is about 2% per year. This coefficient shows that one complete convergence period takes about 35 years for removing the difference between the primary condition with low income and steady-state condition up to 50% and if such difference reduces up to 90%, there is a need to 100 years. $\tau$ Is the tariff rate for foreign goods import and $\alpha$ is the share of broad capital. The effect of distortions is as follows:

$$P = (1+\tau), \qquad \tau \geq 0 \qquad (11)$$

In equation (10) as T approaches 0, the value of $-1(1-e^{-\beta T})/T$ have a tendency toward $\beta$ .In this condition, the effect of distortion, which has been shown in equation 11, could be summarized as follows:

$$-(-x+n+\delta)\pi\log(1+\tau) \qquad (12)$$

It is necessary to write the growth equation in transitional period as follows:

$$(\frac{1}{T}).\log(\frac{y(T)}{y(o)}) = x + \frac{1-e^{-\beta T}}{T}.\alpha(1-\alpha)^{-1}\log[\alpha(\delta+\rho+\theta x)^{-1}]$$
$$-\frac{(1-e^{-\beta T})}{T}\log\hat{y}(o) + \frac{1-e^{-\beta T}}{T}\log(1+\hat{g}) + \frac{(1-e^{-\beta T})}{T}(1-\alpha)^{-1}.\log\theta \qquad (13)$$

When $\hat{g}$ is the ratio of tariff revenue in private income excluding governmental transferring payments? In this part, it is possible to see the effects of trade distortion in equation (12) on economic growth in equation (13). Equation (13) confirms this point that the tariff rate reduces the economic growth rate in a transitional period if there is a steady-state saving rate, about:

$$100(x+n+\delta)\log\phi \qquad (14)$$

In equation (14), n is the population growth rate. Therefore, we see the effects of trade distortions (tariff effects) on economic growth through calculation of equation (14). Selection of numerical amounts for parameter $\pi$ means the economic degree of openness is so much important in appointing the effects of trade obstacles. The results, which explain in next section show that trade distortions cause the reduction of economic growth rate through establishment of, tariff rate. The rate of this amount depends upon the trade degree of freedom and the amount of elasticity of substitution. In parallel with increasing the trade degree of freedom, we have an increase in the effects of trade distortions. With lower elasticity of substitution (which shows the high importance of import in domestic products) and by increasing the trade obstacles, there is a great reduction in economic growth rate. When the elasticity of substitution is high ($\sigma > 1$), the effects of trade distortions would be lower on economy.

## 4-Estimation of Model

Before estimating the model, it is necessary to introduce some of the variables. In the table of gross national product according to economic activities, there are twelve economic sectors as follows:

1- Value added of agricultural sector ($v_1$), 2- Value added of oil sector ($v_2$), 3- Value added of mine sector ($v_3$), 4- Value added of industry sector ($v_4$),

5- Value added of water, gas and electricity sector ($v_5$), 6- Value added of building sector ($v_6$), 7- Value added of commercial, restaurant and hotel sector ($v_7$), 8- Value added of transportation, warehousing and communication sector ($v_8$), 9- Value added of sectoral services of Financial & Monetary institutes ($v_9$), 10- Value added of sectoral services of real estate and professional and technical services ($v_{10}$), 11- Value added of general services sector ($v_{11}$), 12- Value added of social , personal and home services ($v_{12}$), Total value added of economic sectors would be as follows:

$$\sum_{i=1}^{n=12} Vi = S_{um}\, Vi$$

The basic description of other variables can be written as follows:

GDPCB = Nominal gross domestic product

CGDPCB = Gross domestic product in constant price

POP = Population

BMEXR = Exchange rate in parallel market

TARIFF = Tariff rate (Total of commercial profit and custom duty divided by import)

CTIN = Total investment in constant price

GPOP= Population growth rate

IM = Nominal Import rate

### *4-1 Time Schedule & Data*

Time schedule of the study is from 1961 up to 1998 lunar. We have benefited from the data of Central Bank of Islamic Republic of Iran, Ministry of Economic affairs & Finance and in some parts from the data of Management and Planning Organization. In this process, we have benefited from the data of different centers, without any difference among the used data and by removing the ultimate difference among them with a harmonized condition of data.

### *4-2 Calculation of Population Growth Rate and the Ratio of Import to the Total of Value Added*

In the first stage we calculate the average of population growth rate and the ratio of import to the value added in different economic sectors for 4 time periods 1961-1998, 1961-1978, 1979-1998, 1994-1998. The obtained results help us exactly in next estimations.

**Table (4-1): The Average of Population Growth Rate and the Ratio of Import to the Value Added**

| Time period | Average of population growth rate ( GPOP) | Average of import rate to the total value added |
|---|---|---|
| 1961-1998 | 0.028325 | 0.164997 |
| 1961-1978 | 0.029683 | 0.99686 |
| 1979-1998 | 0.027103 | 0.133778 |
| 1994-1998 | 0.014869 | 0.125747 |

Table 4-1 shows the degree of openness of economy. According to this table, economic dependency to trade through the years 1961-1978 is more than other periods. We have the lowest dependency growth and population growth through the years 1994-1998.

### *4-3- The Effects of Tariff on Economic Growth*

As it was mentioned in part 3-1, we have to calculate the formula (14) for under consideration of tariff effects on economic growth:

$$100(x + n + \delta)\log\phi \qquad (14)$$

And we had from formula (9) that:

$$\phi = [(1+\pi) - \pi(1+\tau)^{1-\sigma}]^{1/1-\sigma} \qquad (9)$$

In formulas (14) and (9), n is the population growth rate, $\delta$ is the depreciation rate, x the exogenous technological progress rate, $\pi$ the share of

imported inputs in value added which is a sign of free trade openness, σ the elasticity between domestic inputs and imported inputs and τ is the tariff rate

Therefore, finally the effect of tariff on economic growth could be rewritten in the following formula:

The effect of tariff on economic growth =

$$100(x+n+\delta)\mathrm{Log}[(1+\pi)-\pi(1+\tau)^{1-\sigma}]^{1/1-\sigma} \qquad (15)$$

***The First Scenario***

At first we assume that exogenous technological progress rate is equal to two percent (x=2%) and depreciation rate is equal to ten percent (δ =10%). By the use of obtained amounts in table 4-1 for the average population growth rate and the ratio of import to the value added through different time periods and calculation of tariff rates from 0 to 200% and elasticity of substitution amounting to 2%, 1.5%, 1%, 75% and 0.5%, it is possible to appointing the effect of tariff in different conditions on the economic growth rate. The results of first scenario have been mentioned in tables 4-2 to 4-5. The general results out of the above-mentioned tables should be summarized as follows:

The effects of tariff rate on economic growth rate would increase with reducing the elasticity of substitution. For example by a 2% elasticity of substitution, a 60% tariff, reduce the economic growth rate for lower than 1 %, means 0.89%, in a condition that in elasticity of substitution it is 1.5%, 1%, 0.75 % and 0.5%, the same tariff rate, the economic growth rate would reduce in return 1.01 %, 1.15%, 1.23% and 1.33%. (Table 4-2)

Any increase in tariff rate in any amount or quantity of elasticity of substitution reduces the economic growth rate. For example, with a 2% elasticity of substitution, a 10% tariff reduces the economic growth rate for 0.22%, in a way that a 200% tariff rate, the economic growth reduces to 1.55 %. Therefore, by a 0.5% elasticity of substitution, a 10% tariff reduces the economic growth rate for 0.24% in a way that a tariff of 200% reduces the economic growth for 3.82%. (Table 4-2).

The comparison of the effects of tariff on economic growth rate for considered periods means that the effect of tariff rate for the period of 1961-1978 has been more than other periods. It is possible to see the lowest effect of

period through 1994-1998. This item is a sign of recovery of commercial policies within current years.

The amount of tariff rate effect on economic growth has reduced, in post-revolution period against pre-revolution one due to the reduction of degree of openness economy and reducing of population growth rate.

**Table (4-2): First Scenario: The Effect of Tariff Rate on Economic Growth (1961 – 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.22 | -0.23 | -0.23 | -0.24 | -0.24 |
| 20 | -0.40 | -0.42 | -0.45 | -0.46 | -0.47 |
| 30 | -0.55 | -0.60 | -0.64 | -0.67 | -0.69 |
| 40 | -0.68 | -0.75 | -0.82 | -0.87 | -0.91 |
| 50 | -0.79 | -0.88 | -0.99 | -1.05 | -1.12 |
| 60 | -0.89 | -1.01 | -1.15 | -1.23 | -1.33 |
| 70 | -0.97 | -1.12 | -1.30 | -1.40 | -1.53 |
| 80 | -1.05 | -1.22 | -1.44 | -1.57 | -1.72 |
| 90 | -1.12 | -1.31 | -1.57 | -1.73 | -1.91 |
| 100 | -1.18 | -1.40 | -1.70 | -1.88 | -2.10 |
| 110 | -1.23 | -1.48 | -1.82 | -2.03 | -2.28 |
| 120 | -1.28 | -1.55 | -1.93 | -2.17 | -2.46 |
| 130 | -1.32 | -1.62 | -2.04 | -2.31 | -2.64 |
| 140 | -1.36 | -1.69 | -2.14 | -2.44 | -2.82 |
| 150 | -1.40 | -1.75 | -2.24 | -2.57 | -2.99 |
| 160 | -1.43 | -1.80 | -2.34 | -2.70 | -3.16 |
| 170 | -1.47 | -1.86 | -2.43 | -2.83 | -3.33 |
| 180 | -1.50 | -1.91 | -2.52 | -2.95 | -3.49 |
| 190 | -1.52 | -1.95 | -2.61 | -3.06 | -3.66 |
| 200 | -1.55 | -2 | -2.69 | -3.18 | -3.82 |

Depreciation rate = $\delta$ = %10

**Table (4-3): First Scenario: The Effect of Tariff Rate on Economic Growth (1961 – 1978)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.27 | -0.28 | -0.28 | -0.29 | -0.31 |
| 20 | -0.49 | -0.52 | -0.52 | -0.56 | -0.60 |
| 30 | -0.67 | -0.73 | -0.73 | -0.82 | -0.88 |
| 40 | -0.83 | -0.91 | -0.91 | -0.06 | -1.48 |
| 50 | -0.96 | -0.08 | -1.08 | -1.29 | -1.60 |
| 60 | -1.08 | -1.23 | -1.23 | -1.51 | -1.71 |
| 70 | -1.18 | -1.36 | -1.36 | -1.72 | -1.81 |
| 80 | -1.27 | -1.49 | -1.49 | -1.92 | -1.92 |
| 90 | -1.35 | -1.60 | -1.60 | -2.12 | -2.20 |
| 100 | -1.42 | -1.70 | -1.70 | -2.31 | -2.32 |
| 110 | -1.49 | -1.80 | -1.80 | -2.49 | -2.50 |
| 120 | -1.55 | -1.89 | -1.89 | -2.66 | -2.70 |
| 130 | -1.60 | -1.97 | -1.97 | -2.83 | -2.85 |
| 140 | -1.65 | -2.05 | -2.05 | -3 | -3.51 |
| 150 | -1.69 | -2.12 | -2.12 | -3.16 | -3.60 |
| 160 | -1.74 | -2.19 | -2.19 | -3.32 | -3.70 |
| 170 | -1.77 | -2.25 | -2.25 | -3.47 | -3.79 |
| 180 | -1.81 | -2.31 | -2.31 | -3.62 | -3.88 |
| 190 | -1.84 | -2.37 | -2.37 | -3.76 | -3.97 |
| 200 | -1.87 | -2.43 | -2.43 | -3.90 | -4.06 |

Depreciation rate = $\delta$ = %10

**Table (4-4): First Scenario: The Effect of Tariff rate on Economic Growth (1979 – 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.18 | -0.18 | -0.19 | -0.19 | -0.19 |
| 20 | -0.32 | -0.34 | -0.36 | -0.37 | -0.38 |
| 30 | -0.45 | -0.48 | -0.52 | -0.54 | -0.56 |
| 40 | -0.55 | -0.60 | -0.66 | -0.69 | -0.73 |
| 50 | -0.64 | -0.71 | -0.80 | -0.85 | -0.90 |
| 60 | -0.72 | -0.81 | -0.93 | -0.99 | -1.06 |
| 70 | -0.79 | -0.90 | -1.04 | -1.13 | -1.22 |
| 80 | -0.85 | -0.99 | -1.16 | -1.26 | -1.38 |
| 90 | -0.90 | -1.06 | -1.26 | -1.39 | -1.53 |
| 100 | -0.95 | -1.13 | -1.36 | -1.51 | -1.68 |
| 110 | -1 | -1.20 | -1.46 | -1.63 | -1.82 |
| 120 | -1.04 | -1.26 | -1.55 | -1.74 | -1.97 |
| 130 | -1.07 | -1.31 | -1.64 | -1.85 | -2.11 |
| 140 | -1.11 | -1.36 | -1.72 | -1.96 | -2.25 |
| 150 | -1.14 | -1.41 | -1.80 | -2.06 | -2.38 |
| 160 | -1.16 | -1.46 | -1.88 | -2.16 | -2.52 |
| 170 | -1.19 | -1.50 | -1.95 | -2.26 | -2.65 |
| 180 | -1.21 | -1.54 | -2.03 | -2.36 | -2.78 |
| 190 | -1.24 | -1.58 | -2.10 | -2.45 | -2.91 |
| 200 | -1.26 | -1.62 | -2.16 | -2.54 | -3.03 |

Depreciation rate = $\delta$ = %10

**Table(4-5):First Scenario: The Effect of Tariff Rate on Economic Growth (1994 – 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.15 | -0.16 | -0.16 | -0.16 | -0.17 |
| 20 | -0.28 | -0.29 | -0.31 | -0.32 | -0.33 |
| 30 | -0.39 | -0.41 | -0.44 | -0.46 | -0.48 |
| 40 | -0.48 | -0.52 | -0.57 | -0.60 | -0.63 |
| 50 | -0.55 | -0.62 | -0.69 | -0.73 | -0.77 |
| 60 | -0.62 | -0.70 | -0.80 | -0.85 | -0.91 |
| 70 | -0.68 | -0.78 | -0.90 | -0.97 | -1.05 |
| 80 | -0.73 | -0.85 | -1 | -1.08 | -1.18 |
| 90 | -0.78 | -0.92 | -1.09 | -1.19 | -1.31 |
| 100 | -0.82 | -0.98 | -1.18 | -1.30 | -1.44 |
| 110 | -0.86 | -1.03 | -1.26 | -1.40 | -1.57 |
| 120 | -0.89 | -1.08 | -1.34 | -1.50 | -1.69 |
| 130 | -0.93 | -1.13 | -1.41 | -1.59 | -1.81 |
| 140 | -0.95 | -1.18 | -1.48 | -1.69 | -1.93 |
| 150 | -0.98 | -1.22 | -1.55 | -1.77 | -2.05 |
| 160 | -1.01 | -1.26 | -1.62 | -1.86 | -2.16 |
| 170 | -1.03 | -1.30 | -1.68 | -1.95 | -2.27 |
| 180 | -1.05 | -1.33 | -1.75 | -2.03 | -2.39 |
| 190 | -1.07 | -1.36 | -1.81 | -2.11 | -2.50 |
| 200 | -1.09 | -1.40 | -1.86 | -2.19 | -2.60 |

Depreciation rate = $\delta$ = %10

***Second Scenario***

In second scenario we assume that technological progress rate is equal to two percent (x=2%) and depreciation rate is equal to five percent (δ =5%). By assuming that other assumptions in first scenario are maintained, we appoint the effects of tariff in different conditions on economic growth rate. The results of second scenario have been observable through tables 4-6 to 4-9. It is possible to summarize the results of the second scenario as follows:

Lower depreciation rate, reduce the negative effect of tariff on economic growth. For example, with elasticity of substitution of 2% and 10% of depreciation rate, a 60% tariff there would be a reduction of 0.89% in economic growth rate, in a way that by replacement elasticity of substitution of 2% and depreciation rate of 5%, a 60% tariff there would be a reduction of 0.59% in economic growth rate.

The whole results of the first scenario are valid for the second scenario.

The most important and major difference between both the first and second scenarios are in the difference of depreciation rate which its discussions explained in the first part.

The results of both first and second scenarios reveal that any trade restrictions may result to a reduction in economic growth rate. In other words, a trade free from any restrictions facilitates the economic growth movement and reveals its positive effects.

**Table (4-6): Second Scenario: The Effect of Tariff Rate on Economic Growth (1961 – 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.15 | -0.15 | -0.15 | -0.16 | -0.16 |
| 20 | -0.27 | -0.28 | -0.30 | -0.30 | -0.31 |
| 30 | -0.37 | -0.39 | -0.43 | -0.44 | -0.46 |
| 40 | -0.45 | -0.50 | -0.55 | -0.57 | -0.60 |
| 50 | -0.53 | -0.59 | -0.66 | -0.70 | -0.74 |
| 60 | -0.59 | -0.67 | -0.76 | -0.82 | -0.88 |
| 70 | -0.65 | -0.74 | -0.86 | -0.93 | -1.01 |
| 80 | -0.70 | -0.81 | -0.95 | -1.04 | -1.14 |
| 90 | -0.74 | -0.87 | -1.04 | -1.15 | -1.27 |
| 100 | -0.78 | -0.93 | -1.12 | -1.25 | -1.39 |
| 110 | -0.81 | -0.98 | -1.20 | -1.34 | -1.51 |
| 120 | -0.85 | -1.03 | -1.28 | -1.44 | -1.63 |
| 130 | -0.88 | -1.08 | -1.35 | -1.53 | -1.75 |
| 140 | -0.90 | -1.12 | -1.42 | -1.62 | -1.87 |
| 150 | -0.93 | -1.16 | -1.49 | -1.71 | -1.98 |
| 160 | -0.95 | -1.20 | -1.55 | -1.79 | -2.09 |
| 170 | -0.97 | -1.23 | -1.61 | -1.87 | -2.21 |
| 180 | -0.99 | -1.26 | -1.67 | -1.95 | -2.32 |
| 190 | -1.01 | -1.30 | -1.73 | -2.03 | -2.42 |
| 200 | -1.03 | -1.33 | -1.78 | -2.11 | -2.53 |

Depreciation rate = $\delta$ = %5

**Table (4-7): Second Scenario: The Effect of Tariff Rate on Economic Growth (1961 – 1978)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.18 | -0.18 | -0.19 | -0.19 | -0.20 |
| 20 | -0.33 | -0.34 | -0.36 | -0.37 | -0.38 |
| 30 | -0.45 | -0.48 | -0.52 | -0.54 | -0.57 |
| 40 | -0.55 | -0.61 | -0.67 | -0.71 | -0.74 |
| 50 | -0.64 | -0.72 | -0.81 | -0.86 | -0.92 |
| 60 | -0.72 | -0.82 | -0.94 | -1.01 | -1.08 |
| 70 | -0.79 | -0.91 | -1.06 | -1.15 | -1.25 |
| 80 | -0.85 | -0.99 | -1.17 | -1.28 | -1.41 |
| 90 | -0.90 | -1.06 | -1.28 | -1.41 | -1.57 |
| 100 | -0.95 | -1.13 | -1.38 | -1.54 | -1.72 |
| 110 | -0.99 | -1.20 | -1.48 | -1.66 | -1.87 |
| 120 | -1.03 | -1.26 | -1.57 | -1.77 | -2.02 |
| 130 | -1.07 | -1.31 | -1.66 | -1.89 | -2.17 |
| 140 | -1.10 | -1.36 | -1.74 | -2 | -2.32 |
| 150 | -1.13 | -1.41 | -1.82 | -2.10 | -2.46 |
| 160 | -1.16 | -1.46 | -1.90 | -2.21 | -2.60 |
| 170 | -1.18 | -1.50 | -1.98 | -2.31 | -2.74 |
| 180 | -1.20 | -1.54 | -2.05 | -2.41 | -2.88 |
| 190 | -1.23 | -1.58 | -2.12 | -2.51 | -3.02 |
| 200 | -1.25 | -1.62 | -2.19 | -2.60 | -3.15 |

Depreciation rate = $\delta$ = %5

**Table (4-8): Second Scenario: The Effect of Tariff Rate on Economic Growth (1979– 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| Tariff Rate (%) | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.12 | -0.12 | -0.12 | -0.13 | -0.13 |
| 20 | -0.21 | -0.23 | -0.24 | -0.24 | -0.25 |
| 30 | -0.30 | -0.32 | -0.34 | -0.35 | -0.37 |
| 40 | -0.36 | -0.40 | -0.44 | -0.46 | -0.48 |
| 50 | -0.42 | -0.47 | -0.53 | -0.56 | -0.59 |
| 60 | -0.48 | -0.54 | -0.61 | -0.65 | -0.70 |
| 70 | -0.52 | -0.60 | -0.69 | -0.74 | -0.81 |
| 80 | -0.56 | -0.65 | -0.76 | -0.83 | -0.91 |
| 90 | -0.60 | -0.70 | -0.83 | -0.92 | -1.01 |
| 100 | -0.63 | -0.75 | -0.90 | -1 | -1.11 |
| 110 | -0.66 | -0.79 | -0.96 | -1.07 | -1.20 |
| 120 | -0.68 | -0.83 | -1.02 | -1.15 | -1.30 |
| 130 | -0.71 | -0.87 | -1.08 | -1.22 | -1.39 |
| 140 | -0.73 | -0.90 | -1.14 | -1.29 | -1.48 |
| 150 | -0.75 | -0.93 | -1.19 | -1.36 | -1.57 |
| 160 | -0.77 | -0.96 | -1.24 | -1.43 | -1.66 |
| 170 | -0.79 | -0.99 | -1.29 | -1.49 | -1.75 |
| 180 | -0.80 | -1.02 | -1.34 | -1.56 | -1.83 |
| 190 | -0.82 | -1.04 | -1.38 | -1.62 | -1.92 |
| 200 | -0.83 | -1.07 | -1.43 | -1.68 | -2 |

Depreciation rate = $\delta$ = %5

**Table (4-9): Second Scenario: The Effect of Tariff Rate on Economic Growth (1994 – 1998)**

| Elasticity of Substitution | 2 | 1.5 | 1 | 0.75 | 0.5 |
|---|---|---|---|---|---|
| **Tariff Rate (%)** | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 |
| 20 | -0.18 | -0.18 | -0.19 | -0.20 | -0.20 |
| 30 | -0.24 | -0.26 | -0.28 | -0.29 | -0.30 |
| 40 | -0.30 | -0.33 | -0.36 | -0.38 | -0.40 |
| 50 | -0.35 | -0.39 | -0.43 | -0.46 | -0.49 |
| 60 | -0.39 | -0.44 | -0.50 | -0.54 | -0.58 |
| 70 | -0.43 | -0.49 | -0.57 | -0.61 | -0.66 |
| 80 | -0.46 | -0.53 | -0.63 | -0.68 | -0.75 |
| 90 | -0.49 | -0.58 | -0.68 | -0.75 | -0.83 |
| 100 | -0.52 | -0.61 | -0.74 | -0.82 | -0.91 |
| 110 | -0.54 | -0.65 | -0.79 | -0.88 | -0.99 |
| 120 | -0.56 | -0.68 | -0.84 | -0.94 | -1.06 |
| 130 | -0.58 | -0.71 | -0.89 | -1 | -1.14 |
| 140 | -0.60 | -0.74 | -0.93 | -1.06 | -1.21 |
| 150 | -0.62 | -0.77 | -0.98 | -1.12 | -1.29 |
| 160 | -0.63 | -0.79 | -1.02 | -1.17 | -1.36 |
| 170 | -0.65 | -0.82 | -1.06 | -1.23 | -1.43 |
| 180 | -0.66 | -0.84 | -1.10 | -1.28 | -1.50 |
| 190 | -0.67 | -0.86 | -1.14 | -1.33 | -1.57 |
| 200 | -0.68 | -0.88 | -1.16 | -1.38 | -1.64 |

Depreciation rate = $\delta$ = %5

## 4-Summary & Conclusion

This paper has engaged with theoretical and empirical on the subject of tariff effects on economic growth. It is important to say that in a great number of economic studies the relation between economic growth and international trade via study of tariff effects on economic growth is considered. The question which most of economists are seeking to find an answer for it is the relation between unrestricted trade and economic growth. The question is: Is any trade, which is

without any interference of government and distorted policies as a result of effective economic growth? Even all-powerful findings about the positive relation between free trade and economic growth could not remove all doubts and reply to the mentioned question a convincing answer. On the other hand, the classics and neo-classics in international economics literature confirm that those trade distortions which are out of governmental economic policies deviate the economic growth rate and per capita income in a long-term transitional period from its main path. They believe that any tariff establishment and utilize from protective policies by small country cause the increase of the price of imported goods, reducing of domestic consumption, increase of domestic in-efficient production, reducing of import, establishment of new income tariffs for government, distribution of income and creation of in-efficiency. They added that establishment of tariff is generally for small and large country which leads to reducing of welfare and accordingly economic growth.

Although partisans defend and insist on their own ideas about make use of protective policies by presentation of subjects such as "Optimum Tariff", "Infant Industry Arguments", "Externality", "Technology import", "Improvement of occupation and balance of payments", "Supporting domestic labor force and the price of domestic goods", "Creation of income for government", "Improvement of terms of trade", "Confronting damping "and "Supporting the national security", but on the contrary, most economists believe that free trade could be considered as the country's engine of growth. In addition to presenting a lot of economic reasons for free trade; they abundant points to some social, educational and cultural reasons of free trade.

In intention to show the effect of tariff on economic growth, at first we maximize the household utility function in a format of neo-classic model. In this model, we may observe that the effects of trade distortions depend upon the change of steady state income and the speed of convergence. Empirical studies show that convergence speed is about 2% per year. This coefficient confirms that it takes a complete convergent period of 35 years for removing the difference between the primary condition with low income and steady state condition up to about 50% and if this difference reduces for 90%, it needs to 100 years time. The period of study is from 1961 up to 1998. In first stage, the average of population growth rate and the ratio of import to the total value added have been calculated in different economic sectors for 4 time periods: 1961-

1998, 1961-1978, 1979-1998, and 1994-1998.The results show that the economy degree of openness and economic dependency to trade through the years 1961-1978 was more than the other periods. We have the lowest dependency rate and population growth rate through the years 1994-1998.

We have studied the effects of tariff on economic growth in two scenarios. In first scenario we assume that technological progress rate is equal to two percent and depreciation rate is equal to ten percent. The obtained results in this scenario should be summarized as follows:

1- The effects of tariff rate on economic growth increase with reduction of elasticity of substitution.

2- Any increase of tariff rate in any quantity of elasticity of substitution cause to reduction of economic growth rate.

3- The comparison of the effects of tariff on economic growth rate for considered periods confirm that the effects of tariff rate for the period of 1961-1978 was more than the other ones. The lowest effect belongs to the period of 1994-1998.

4- The amount of tariff rate effect on economic growth, in post-revolution period as compared with pre-revolution one has reduced due to reduction of economic degree of openness and also reducing of population growth rate.

In second scenario, we assume that technological progress rate is two percent and depreciation rate is five percent. The obtained results of second scenario should be summarized as follows:

1- Any lower depreciation rate has a negative effect on economic growth.

2- The whole results of first scenario are valid for the second scenario.

The results of both first and second scenarios confirm that any trade restrictions would cause the reduction of economic growth rate. In other words, any unrestricted trade facilitates the movement of economic growth and reveal its positive effects on it.

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