

Conspicuous Consumption and Economical Growth Case study (Iran During the Period of 1991-2008)

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ABSTRACT

In this article, first in a theoretical frame work, we will show that under some assumptions like generalized form of production function That is, the function in which productive firms in exchange of different ratios of input prices, select different ratios of minimum input through changes in function production parameters in a way in which the firm's profits usually lie on the maximum level and meanwhile by considering this fact that the capital factor is the only restrictive factor of the economic growth, try to drive the potential real output expansion path. Finally, by using statistical information related to the economy of Iran during the period of 1991-2008 and related required estimations we will show that how households, through eliminating the conspicuous consumption method, in durable goods and services will be able to increase the marginal propensity to save and here by will succeed in affecting the potential economic growth rate in the economy of Iran. On the other hand, we will show that how households, through eliminating the mentioned behavior, will be able to increase the real rate of output growth from 3.4 to 6.2 percent.

KEY WORDS: Generalized form of production function with fixed coefficient, durable goods, economic growth, conspicuous consumption, marginal propensity to save.

INTRODUCTION

In this article, first in a theoretical approach and under some specific assumptions, we will try to derive the equation of the potential real output growth in a hypothetical economy. Then through Iran central bank's data during the period of 1991-2008 we will make an attempt to estimate the parameters of the mentioned model.

Afterwards through distributing 5000 questionnaires in different provinces of the country we will make an effort to gather some date and the result of this information will show us what percentage of the costs spent on durable goods and services had been affected by the conspicuous consumption method.

In the end through combining the estimated model and results from the distributed questionnaires we will try to estimate the potential real output expansion path equation in a new situation which is called the secondary situation.

The result of the studies will show that if the unfavorable mentioned behavior had been eliminated in the studied period, to what extra it could have affected the potential real output growth rate.

Undoubtedly, reaching higher potential real output could have resulted in an outstanding decrease in the unemployment rate in economy which is considered the biggest concern of the government.

Fulfilled studies and researches show that previous researches which were done by other researchers don't relate to our main topic and research, other researches will have been presented in similar issues can be summaries as below:

There are quite a few papers that integrate structural unemployment into standard growth models. Palokangas (1995) integrates union wage bargaining into a Romer (1990) type of model and finds that the effect of union wage bargaining is ambiguous and depends on the elasticity of substitution between low-skilled and high-skilled labor. Lingens (2003) applies an Aghion/Howitt (1992) type of model and derives quite similar results. The basic mechanism in these types of models is that the allocation of the stock of high-skilled labor to the two sectors of the economy will be affected by the union wage bargain. Hence, union wage bargaining will cause "migration" of high-skilled labor from the production to the R&D sector or vice versa. The rationing effect of the union does not affect the growth driving sector of the economy.

In addition to these types of models, there are also ones that exclusively focus on the rationing effect of unions, as De Groot (2001). In his model the amount of resources employed

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in the research sector of the economy is a fixed and exogenously given part of the amount of resources employed in the production sector. With unionization, the amount of production declines and hence, the amount of resources employed in the research sector must decline, too, which dampens the rate of growth. Booth, A.(1996) & De Groot H. L. F.(2001)

The main drawback of these types of models is twofold. Firstly, when concentrating on the allocation effect of the wage bargain, it is assumed that the stock of high – skilled labor is exogenously given. This assumption seems to be a crackpot idea, at least in a long run context. Secondly, the assumption of the De Groot(2001) model that there exists an exogenously given relation between the research and the production sector seems problematic, too.

RESEARCH METHODS

First, in order to facilitate the work we present the model assumptions and then introduce supply and demand functions for labor input and finally the potential real output expansion path is presented.

Model assumptions:

1) Production function governing on economy is the generalized form with the fixed coefficient.

So according to the first assumption we have:

$$i) \quad y = f(K, L)$$

$$ii) \quad f(\alpha, \beta) = f\left(\frac{\lambda}{\beta}, \beta\right) = 1 \quad : \lambda > 0 \quad \& \quad \alpha = \frac{\lambda}{\beta}$$

$$iii) \quad f(\eta K, \eta L) = \eta y$$

So that:

$\alpha > 0$, represents the minimum capital input amount for producing a unit real output.

$\beta > 0$, represents the minimum labor input amount for producing a unit real output

y , represents the total real output in economy,

$\alpha = \frac{\lambda}{\beta}$, represents the substitution among input minimum amounts for producing a Unit real output.

According to the above assumptions and since firms are interested in maximizing their profits, the accuracy of the following results can be easily proven:

$$i) \quad \frac{K}{L} = \frac{\omega}{r}$$

$$ii) \quad \sigma = \frac{d \ln\left(\frac{K}{L}\right)}{d \ln\left(\frac{\omega}{r}\right)} = 1$$

So that :

$\omega > r$, represents the real wage for per labor input unit.

$r > \omega$, represents the real cost used for per capital input unit.

2) Economy constantly lies on the expansion path. According to this assumption we have:

$$\frac{k}{\alpha} = \frac{L}{\beta}$$

3) At the beginning point of analyzing, unemployment rate is beyond the normal rate, that is incomplete employment sources.

4) Inflation rate equals zero

5) Depreciation rate is equal to δ , so that: $0 < \delta < 1$

6) There is no technical progress

7) At the beginning point of analyzing, the real wage is equal ω_1 so that in this wage level one part of labor input is unemployed according to the assumption under 3.

8) Existents firms in all industries are in perfect competition; meanwhile they are similar to each other.

Demand and supply functions for labor input:

According to the mentioned assumptions, the figure of supply and demand for labor input can be considered as follows in economy.

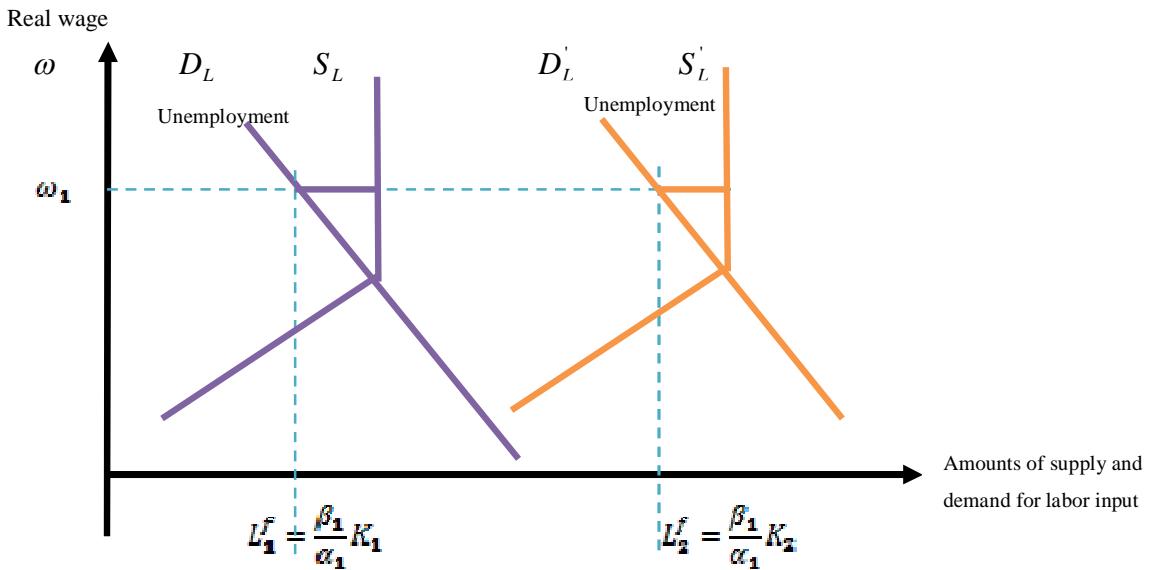


fig . (1) : it shows supply and demand functions for labor input based on the mentioned assumptions.

According to the figure(1) it is assumed that the invested amount by firms during the period of time in order to increase the productive capacities in economy is done in a way that the primary unemployment in economy has been remained fixed during the time.

Derivation of the growth rate of the potential real output expansion path :

According to the mentioned assumptions and explanations it can be written:

$$i \equiv \delta K + \frac{dK}{dt} = sY \quad (4-1)$$

So that:

$\frac{dK}{dt}$: represents changing in capital stock per changing in each unit of time.

According to the production function we have:

$$K = \alpha Y$$

Therefore:

$$\frac{dK}{dt} = \alpha \frac{dY}{dt} = \alpha Y' \quad : \alpha' > 0 \quad (4-2)$$

By substituting relationship (4-2) in relationship (4-1)

We have:

$$\delta K + \alpha Y' = sY \quad (4-3)$$

So that:

$\alpha Y'$: Represents the invested level in economy which results in increase in productive capacities.

δK : shows the level of investment in economy which has been done in order to compensate the capital depreciation.

By substituting production function in equation (4-3)

We have:

$$\begin{aligned} sY - \alpha \delta Y &= \alpha Y' \\ (s - \alpha \delta)Y &= \alpha Y' \end{aligned}$$

$$\left(\frac{s - \alpha\delta}{\alpha}\right)Y = Y'$$

$$\frac{s}{\alpha} - \delta = \frac{Y'}{Y}$$

So that:

$$\frac{\dot{Y}}{Y} = (\ln Y)' = \dot{Y}$$

: \dot{Y} = the growth rate of Y

Therefore the equation (4-3) can be written as follows:

$$\frac{s}{\alpha} - \delta = \dot{Y} \quad (4-4)$$

Now by using equation (4-4) the figure of the growth rate of the potential real output expansion path can be drawn as follows:

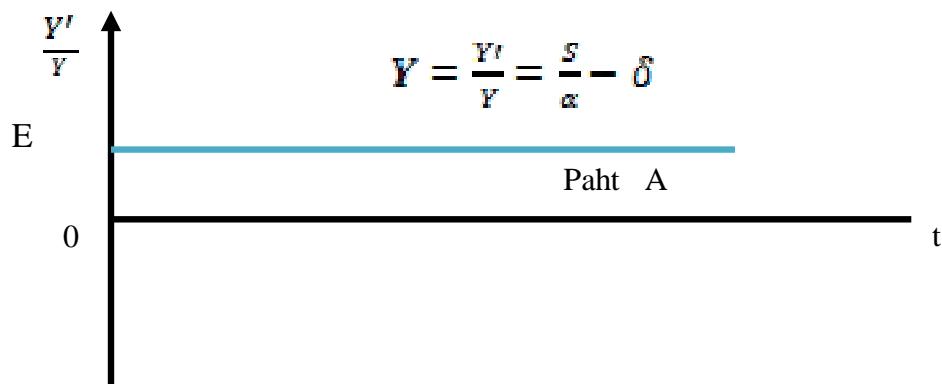


fig . (2) : it shows the potential real output expansion path equation based on the mentioned assumptions

According to figure (2) it can be considered that the economic growth rate based on the equation (4-4) is equal to a fixed number. Domar E. D. (1946) , Domar E.D. (1957) & Domar.E.D. (1947)

Later on the article we will show that how households through eliminating the conspicuous consumption method in durable goods and services can increase the marginal propensity to save and hereby will succeed in affecting the potential economic growth rate which could have overcome one part of unemployment rate through more speeding the supply labor input curve in comparison with the demand labor input curve. Of course if they had applied this method in the studied period of time. Solow R. M. (1956) & Solow R. M. (1970)

EMPERICAL RESULTS

In order to the reach the mentioned aim and gather some data related to household's consumption expenditures we distributed 5000 questionnaires in three items including nondurable goods, durable goods and services and then we noticed that in the mentioned studied period, approximately 28% and 35% of household's consumption expenditures on durable goods and services were affected only by the conspicuous consumption method.

So, according to the study by some researchers related to the estimation of the long-run and short-run consumption function in which the marginal propensity to consumption from disposable income has been estimated 0.49 and 0.37, respectively, and also based on this statistical fact in which the ratios of consumption, government expenditure, total investment

expenditure to gross domestics product in long run are equal to 0.45, 0.24 and 0.31 respectively. Besides, according to the central bank of Iran statistics in which the ratio of

nondurable goods consumption expenditure to consumption, the ratio of durable goods consumption expenditures to consumption and the ratio of service expenditures to consumption is in long run equal to 27%, 23% and 50% respectively, Molould Ahmad, Tashkini Ahmad &Rezasoori Amir. (2008). so it can be concluded that 24% of consumption expenditures of households on durable goods and services is only affected by the conspicuous consumption method.

So if households could have overcome the conspicuous the consumption then the mentioned expenditures would have been spent on investment expenditure.

Under such conditions, the ratio of total save to the gross domestic product could have reached .0418 from 0.31 which is the present rate.

On the other hand, according to the equation (4-4) in order to calculate the amount of the conspicuous consumption elimination effects on the amount of the growth rate potential real output, in addition to the amount of marginal propensity to save, we also need the amounts of α .

It can be easily shown that the amount of α is the ratio of net investment to the changes in the gross domestic product.

According to the central bank data, the amount of this ratio in the mentioned period is averagely equal to 3.78. the figure (3) approximately represents this situation.

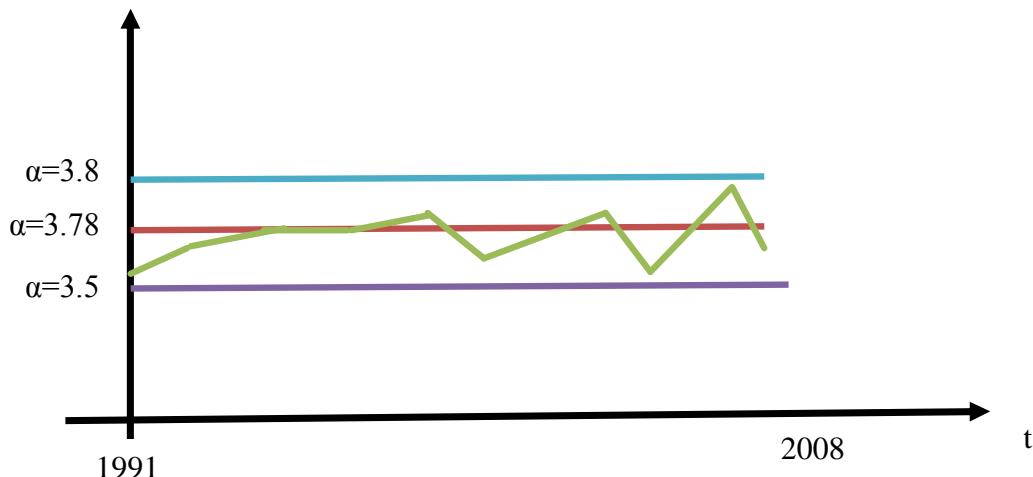


fig . (3) : it shows the obtained amounts for Alpha parameters During the period of 1991-2008 parameters.

On the other hand, depreciation costs consist of 18% of gross domestic product in the economy of Iran. So depreciation rate will be equal to 0.048.

Now, based on the derived amount, the amounts of potential real output growth rate, according to equation (4-4) for each situation i.e. the first and the second situation will be fallows:

The first situation:

According to the equation (4-4) in the first situation the amount of \dot{Y} can be calculated as follows:

$$\dot{Y} = \frac{s}{\alpha} - \delta = \frac{0.31}{3.78} - 0.048 = 0.082 - 0.048 = 0.034 = 3.4\%$$

THE SECOND SITUATION:

According to the equation (4-4) in the second situation the amount of \dot{Y} can be calculated as follows:

$$\dot{Y} = \frac{s}{\alpha} - \delta = \frac{0.418}{3.78} - 0.048 = 0.110 - 0.048 = 0.062 = 6.2\%$$

According to the first and second situation it can be considered that according to the figure

(4) the conspicuous consumption elimination will cause the economic growth rate to reach 6.2% from 3.4%.

This amount of increase in the economic growth rate could have definitely provided more employment grounds in the economy of Iran which can be considered as one of the most serious challenges lying up on the head.

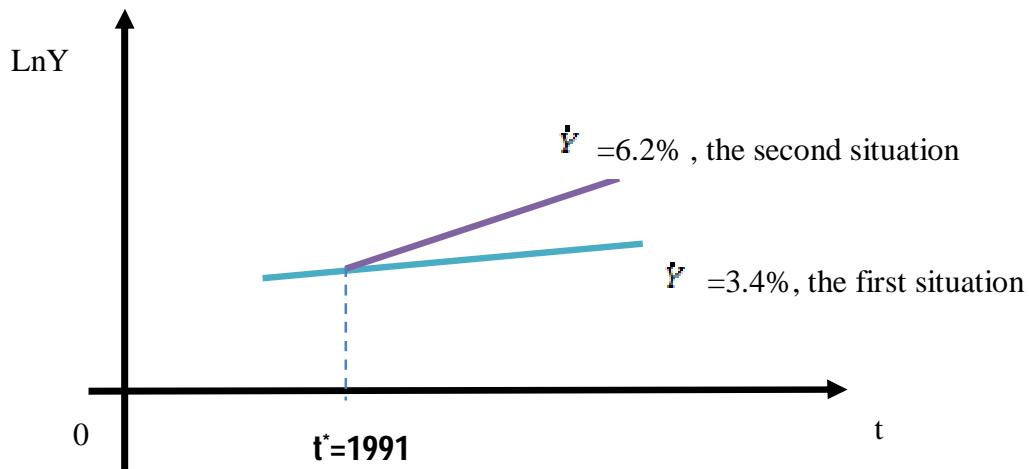


fig . (4) : it shows the potential production growth rate amounts in the first and second situation.

Conclusion

In this article, first in a theoretical approach and under certain assumption such as generalized form of production function with fixed coefficient in which the capital factor is considered the only restrictive factor of the economic growth, we succeeded in deriving the potential real output expansion path equation in a theoretical approach then by using central bank's data we were able to estimate the parameters of the mentioned model during the period of 1991-2008.

Afterwards by distributing 5000 questionnaires in different provinces of the country among Iranian households we gathered some data related to the consumption of durable goods and services. The result of the studies showed that during the mentioned period approximately 28 and 50 percent of expenses spent on the mentioned items respectively, were the result of the conspicuous consumption behavior.

Finally, according to the estimations of the mentioned model parameters and based on the obtained statistical facts related to the conspicuous consumption on durable goods and services and through combining all data, we were able to derive the potential real output expansion path equation in a secondary situation in which the conspicuous factor has been ignored.

To conclude, in this article we showed that the elimination of conspicuous consumption method could have approximately increased the real rate of output growth from 3.4 to 6.2 percent and it could have definitely resulted in a sharp decrease in unemployment rate which has been regarded as the most serious concern of the government in recent years.

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