WALIA journal 31(S4): 40-43, 2015
Available online at www.Waliaj.com
ISSN 1026-3861

The evaluation of the impact of income tax on economic growth and development in the Islamic republic of Iran during 1971-2006

Abedin Saeedi Kia [1,*], Zahra Mousavi [2]

[1]*Department of Economics, Andimeshk Branch, Islamic Azad University, Andimeshk, Iran*
[2]*Department of Accounting, Andimeshk Branch, Islamic Azad University, Andimeshk, Iran*

Abstract: The main objective of this study is to evaluate the effect of income tax on economic growth and development in the Islamic Republic of Iran during 1971-2006.In the present study the hypotheses such as advanced statistical methods like linear regression and VAR and ECM methods were used. Cointegration tests for long-term equilibrium relationship between the variable were used. To determine the option lag length for the model of Schwarz Bayesian Criterion (SBC) has been used and the length of intervals in row was 2, and the number 71.71521*. The results of the R-squared analysis revealed that there is a positive meaningful correlation between the income tax current and structural payments and general index (consumer prices for goods and services). However, the present study indicates that the amount of income tax and manpower and employment index (literacy rate) and the rate of economic growth, there is no significant relationship.

Key words: *Taxation; Economic growth; Economic development; GDP growth*

1. Introduction

The advent of the industrial revolution and the emergence of imbalances caused by excess productions to consumptions and vice versa, the role of paper money and the creation of, structural inflation direct and continuous involvement of governments in economic plan to balance the growth and of economic development which most of economists postulate that as a need is inevitable. Tax calculated based on the notion of program, income and national wealth, greater fiscal policy as a tool to balance the macroeconomic level, the funds, in a way that would create the conditions for economic growth and development coordinator (Arnold, 2012).

Definition of economic growth: Economic growth is as axuantitative increase in the production of goods and services and its criterion is changes in the "Gross Domestic Product".

Definition of GDP: is the sum of the final value of the change in "gross national product". All goods and services during the fiscal year is the realization of a society's economic performance. Economic development is "dynamic" process which is essential to economic growth. Although economic growth is a necessary condition but its sufficient condition for economic development is necessary and dynamic transformation and changes between all the constituent and elements of an economic system that promotion and Gross National Product is include the sum value of all final goods and services during a fiscal year is the realization of a society's economic performance. (Marofi, 2011).Economic growth is defined as steady and quantities increase in the production or per capita income through association with an increase in the labor force, consumption, investment and trading volume. Economic development contains qualitative changes in economic request, the type of him products, motivation and organization of production. And often Determinant factors of economic growth are determined by economic development, factors such as changes in technology and infrastructure. In fact, economic development includes growth and lack of growth. An economy may grow without poverty, unemployment, and social inequality to be developed, and (an economic may keep its rising trend. despite lake of modern technology of productions, infrastructure changes and poverty). While economic development is always accompanied by economic growth (Gharehbaghian, 2011).Tax calculated based on the notion of program income and national wealth, greater fiscal policy as a tool to balance the macroeconomic level, the finds, in a way that would create the conditions for economic growth and development coordinator (Jafari, 2011).

economic growth that has undeniable influence on improve welfare of society and more physical and human capital, implementing new production techniques and contribute new knowledge to the field which is the base for of the growth process. Taxes, because of it's the effect on the return of investment in physical and human can influence or decision making on the economy and, ultimately, on the growth rate. During the twentieth century, most developed countries have dramatically increased the level of taxes (taxes ranging from 5 - 10 percent of

* Corresponding Author.

GDP in early previous century to 20 - 30 percent of GDP at the moment have raised. Samimi et al. (2001) State exercise taxes as a tool to guide through the impact of the activities of enterprises which can play a key role in the industrial development policy. With the proper administration of the tax system a government can be developed to achieve the goal of development (Mousavi and Kazemi, 2011).Economic growth is as a small increase in the production of goods and services on time, and the measure is the change in "gross national product" (Marofi, 2011).The government can balance economic growth, and be involved in economic planning continuously and directly. Taxation, as an instrument of fiscal policy can has a significant role to play, is to balance the macro level and to create right conditions for economic growth and development coordinator (parsley, 2011). Incredibly, taxes and tax system have significant influence on trend of country development. We can say that tax administration (a form of revenue for our government) and the equitable distribution of income among individuals will lead the country towards economic development. (Marofi, 2011). Hence can it be concluded that the relationship between taxes and economic growth are significant? Or not?

2-Review of literature:

Taxation as a tool to guide the state through indirect impact on the firm's economic activity, could play a key role in the industrial development policy. Government can formulate a proper tax system on how to achieve the goal of development will affect. Economic growth as a small increase in the production of goods and services on time, the criteria for measuring the change in GDP (Marofi, 2011). The government can balance economic growth, and continued to be involved in economic planning. Taxation as a tool to adjust fiscal policy to balance the macro level could have a significant role to play, and to create the appropriate environment Brayrshd and economic development coordinator (Jafari, 2011). That said, governments of tax (a form of income for our state) fair distribution of income among individuals are pushing the country towards economic development (Marofi.2011). Hence it can be concluded that there is no significant relationship between taxes and economic growth.

Ali Hassan Zadeh(2001),considered Iran's economic growth during the 1971-1999 tax effect and following three hypotheses the first hypothesis company effects of tax revenue (direct and indirect taxes) to GDP on the economic growth. The second and the third hypotheses considered relationship between economic growth and growth of taxes. The first hypothesis result that used or the regression model was reached that a small negative growth of taxes proportion direct and indirect to GDP growth, and effect on growth .the second and the third hspy the sis result that used of Granger causality fest. It was concluded that there was a unidirectional relationship from tax growth to economic growth.

Ghorbani(2011), studied the relationship between taxes and economic development of the Fran country during the years 1971 to 1991 and according to the information, it is concluded that direct taxes has more changes ond GDP growth.

Folster and Henrekson (2000) in article (taxation and development) studied financial data of 82 developing countries and showed a weak but meaningful correlation (at the 5% level) between the tax ratio and the income tax of the countries and the gap between the actual tax system, and tax code have been reduced; there for thus tax rates reduced.

Robin Brgns and Nicholas Stysrd (1997), in their article (taxation and development)studied financial data of 82 developing countries and showed that a weak but significant correlation (at the 5% level) is between the countries and their income tax, and the gap between the actual tax and the legislature tax system reduced then the top tax rate has been reduced.«mingeandmorlue» through the causal test of Grenger illustrated that between the receipts and the expenditure of 58 percent the states there is , a one-way causal relationship and in 24 percent of the states there is no causal relationship between receipts and expenses.

3. Research hypotheses

1- There is a meaningful correlatorn between income tax and financial situation of the state (current payments).
2- There is a meaningful correlatorn between income tax and financial situation of the government (paid for construction).
3- There is a meaningful correlatorn between the tax income and the index of total (the price of consumer goods and services).
4- There is a meaningful correlatorn between the income tax the labor and employment indicators (literacy rate).
5- There is significant relationship between the income tax and index of growth rate of economy.

4. Study variables

4.1. Methodology and model

Linear regression model was linearly and with the method VAR and ECM's.

$$\gamma_\tau = \alpha_1\gamma_{\tau-_1} + \alpha_2\gamma_{\tau-_2} + \alpha_3\gamma_{\tau-_3} + \alpha_4\gamma_{\tau-_4} + \alpha_5\gamma_{\tau-_5} + \alpha_6 D_0 + \alpha_7 D_1 + \alpha_8\gamma_{\tau-_\rho} + U_\tau$$

This study is based on empirical analysis which focuses on seven variables. We used variables include ding : "Y" represents the dependent variables,α_1 payment,α_2 payment of construction, α_3Index (the price of consumer goods and services),α_4 literacy rate and $\alpha_5$conomic growth rate, and D represents the virtual variables during the 8 years of the war and during the years without war. Time series data from 1971 to 2006 is considered.

Current payments: includes all government current expenditures during the fiscal period.

Development expenditures: include all payments for civil (construction) works was done during a fiscal period.

Total Index (the price of consumer goods and services): includes .the cost of all goods and services used during a fiscal period.

Literacy rate: the proportion of literate people to the entire population.

Economic growth is including differences in income tax a year with the next year.

All these tests were performed by the software "Eviews".

Islamic Republic of Iran during the years 1971 – 2006.

The data in this study is based on a library research library and information are collected from articles, books, publications and a variety of economic issues have been examined.

5. Evaluation of static variables in the model

In this study, for all series before the estimate of regression model. If the time series is not stationary case, there is not the possibility of using regression models, because of the spurious regression problem .For static tests; the unit root tests are used. One of the most common diagnostic tests for unit root test is the Dickey - Fuller test used in this study. According to Perron criticism to Fuller Unit root test, when there are structural fracture in time series, and consideration of structural fracture are necessary while structural fracture could be carried out.

Tests show that variables the current (1LA) development expenditures (2LA) general Index (the price of consumer goods and services) (3LA), literacy rate (4LA) and growth rate (5LA) in the leval of are viable error at 10% and based on the Phillips Perron test in the same significant level in the first subtraction state is viable .

One of the main stages of the approximate VAR model is the choice of pulsate degree of this model. Therefore the Schwartz Bayesian criteria, Kayyk, Hanan Queen and the likelihood ratio statistic are used.

Table 1: Unit root test results - Fuller found

Variants	Calculated	1%Criticd amount	5%Criticd amount	10%Criticd amount
LA1 (I(1))	-3.87	-3.63	-2.95	-2.61
LA2 (I(1))	-5.02	-3.63	-2.95	-2.61
LA3 (I(1))	-3.53	-3.63	-2.95	-2.61
LA4 (I(1))	-3.56	-4.25	-3.54	-3.20
LA5 (I(1))	-5.30	-2.68	-1.95	-1.60
LY (I(1))	-4.39	-3.63	-2.95	-2.61

Table 2: Unit root test results for the Phillips – Perron

Variants	Calculated	1%Criticd amount	5% Criticd amount	10%Criticd amount
LA1 (I(1))	-3.90	-3.63	-2.95	-2.61
LA2 (I(1))	-5.07	-3.63	-2.95	-2.61
LA3 (I(1))	-3.40	-3.63	-2.95	-2.61
LA4 (I(1))	-3.52	-4.25	-3.54	-3.20
LA5 (I(1))	-5.30	-2.68	-1.95	-1.60
LY (I(1))	-4.41	-3.63	-2.95	-2.6

Table 3: Statistical tests to select the optimal lag for the VAR model

lag	Log L	LR	FPE	AIC	SC	HQ
0	-1484.718	NA	4.88e+30	87.6893	87.95868	87.78118
1	-1208.624	438.503	73.56611	73.56611	75.45162	74.20912
2	-1081.631	156.8742*	68.21356*	68.21356*	71.71521*	69.40772

As the results of above table shows, Schwartz and Hanan Quick in HQ SC and AIC values is the most minimal in second pulsate. Therefore In this model, the first optimal pulsate is chose pulsate. It should be noted that to choose of optimal pulsate the Schwarz criterion is used in this model. Because this criterion based on the principle of Community Mvnys, offers fewer pulsate and eventually a offers parsimonious model a the second pulsate AIC SC and HQ as the above results show, Schwartz and Hanan Quick Heal is minimal compared to other values. Thus, in this model, the first optimal choice. It should be noted that the to choose the number of the optimal and pulsate the Schwarz criterion is used, Because this criterion is based on the Morris Broadband, offers fewer pulsate and eventually a it provides parsimonious model.

As the vector (1) showed, the current payment coefficient is negative and significant; indicating that the current pay is negatively related to income tax. Development expenditures have also negative and significant coefficient on this variable whien indicates a negative relationship with tax revenue. Index (the price of consumer goods and services) is also negative and significant coefficient on this variable that indicates a negative relationship with income tax. But economic growth rate has a positive coefficient indicates that the variable is positively related to the income tax.

As the vector (2) showed, the index is negative and significant coefficient of income tax that reflects current pay is negatively related to the income tax. Payment of development is positive and significant coefficient that indicates a positive relationship between these variables with construction. Payment Index (the price of consumer goods and services) is also negative and significant coefficient on this variable whien indicates a negative correlation with the Index (the price of consumer goods and services).The literacy rate is also positive and significant coefficient which indicates that the variable is positively related with the current payment. Growth rate has a positive coefficient which indicates a positive relationship between this variable with current payment.

The first step to estimate a vector error correction model is determination the appropriate pulsate length for the subtraction of variables in the model as regards that the number of pulsate of (VECM) pattern in sort action of variables is related with the number of pulsate (VAR) in the VAR is patter. Knowing the number of pulsate in the model, the number of variables subtractions in the model in the interval (VECM) is obtained. Due to the optimal pulsate in the (VAR) models two-the subtraction of variables in the model (VECM) will be one. In fact, the vector error correction model for inflation, as regards that a long-term relationship, and zero pulsate in variables subtractions by taking and intercept in short and long term, could be reached.

6. Verification of the hypotheses

Between the current income tax payments, HO assumption is rejected and there is a positive and meaningful correlation.

Between tax revenue and development expenditures, HO assumption is rejected and there is a meaningful and positive correlation.

Between the total amount of tax revenue (the price of consumer goods and services), HO assumption is rejected and there is a positive correlation.

Between the amount of income tax and labor and employment indicators (literacy rate), HO assumption is accepted and there is no significant relationship.

Between the growth rate of income tax, HO assumption is accepted and there is no significant relationship. Based on these results we can conclude that the most significant effect on Iran's economy over the current pay taxes is: current payment, pay for construction, general index (price of consumer goods and services), economic growth rate and finally the economic growth rate.

7. Conclusion and suggestions

State excise taxes as a tool to indirect guide through the impact on economic activities of enterprises can play a key role in economic development policy. With the proper administration of the tax system a government can influence on how to achieve the goal of development. The challenges and problems associated with tax revenues collected should be solved and the traditional and semi-traditional tax collection should be changed with industrial one .traditional and Perhaps the reason for this is that we look at tax as a way to make money for government and we do not notice to its effects on economic development and the achievement of sustainable development. If the tax is paid on time and in place by the government definitely it wills significant effects on economic growth and prosperity.

References

Arnold, J, (2012), Do Tax Structures Affect Aggregate Economic Growth? , Quarterly Journal of Economics, No. 106: 407-423.

Brgns, R. and N .Stysrd(1997), Tax and Development.

Brgns, R. and N .Stysrd(1997), Tax and Development.

Folster S. and M. Henrekson, (2000) , " G ROWTH Effects of government expenditure and taxation in rich countries " , European Economic Review, 82 , 924 -963.

Gharebaghiyan , M (2011). Economic Growth and Development, Tehran, Publication Nay, Eleventh edition of Volume I.

Ghorbani. ,(2011),The role of taxes and subsidies on the distribution of income and wealth in.

Hassan Zadeh .A , (2001) , The effect of taxes oneconomic growth during the 1971-1999 Iran.

Jafari, S.A, and et al,(2011) , Inflation Tax and Economic Growth in Iran , Journal of Basic and Applied Scientific Research, 1(3): 157-161.

marofi, A (2011). The role of taxes on economic development, Journal of Iranian Research and Analysis, 17(2): 1-21.

Mousavi,S. M, andH.Kazemi, (2011),A Proper System of Taxation, Journal of Iranian Economic Policy, Volume 65, No.3:34-46.