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The evaluation of the impact of income tax on the financial status indicator (current payments and payments for development) in the Islamic republic of Iran during 1971-2006

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Abstract: The main objective of this study is to evaluate the effect of income tax on the financial status indicator (current payments and payments for 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. Co-integration 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 was2, 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; Is 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 taxes: VAT is part of the income or assets of the Mnzvrprdakht public spending and fiscal policies in order to maintain economic resources, social and political country under the laws of the State of receipt by the executive administrative levers. Some tax Ramblghy know that the persons, companies and institutions, to strengthen the rule of law and that the public costs obtain (Mousavi and Kazemi, 1390).

Government current expenditures for all services and functions have been predicted steady state. These costs are often continuous and revenues of almost constant provided. Current costs include personnel costs (including salary, benefits and contributions), administrative expenses (such as travel expenses, transportation and communications, rent, fuel) and related expenses paid transfers (such as aid and grants the public sector and the private sector, interest payments, etc.) will be. For example, costs associated with the construction of dams, railways, ports, airports, telecommunications, hospitals, schools, universities, etc. These costs are included. Unlike the current government spending in recent years the trend has been upward. Construction costs associated with trading and the change of government revenue, has changed (Joseph, 2005)

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).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 (Arnold, 2012).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

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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 on the financial status indicator (current payments and payments for Development) is significant? Or not?

2. Review of literature

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 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).

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.

Kmyjany and Fahim (1991) research was on per capita income as an effecting factor to the ability of paying taxes of people. They concluded that higher levels of per capita income, mainly a higher level of savings, lower rates of illiteracy and a reasonable level of development would facilitate the total state of tax collection.

Martin and Fardmanesh (1990) the relation between income tax rates and economic growth in the 76 countries studied. Their research results showed that the ratio of tax revenue between GDP on the one hand and rate of economic growth on the other hand, is a negative relationship.

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. «minge and morlue» 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 correlation between income tax and financial situation of the state (current payments).
2- There is a meaningful correlation between income tax and financial situation of the government (paid for construction).

4. Study variables

4.1. Methodology and model

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

$$y_t = \alpha_1 y_{1-1} + \alpha_2 y_{1-2} + \alpha_3 D_0 + \alpha_4 D_1 + \alpha_5 y_{1-p} + \square_t$$

This study is based on empirical analysis which focuses on seven variables. We used variables included: "Y" represents the dependent variables, α_1 payment, α_2 payment of construction, and D represents the virtual variables during 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.

4.2. Analysis of models (VAR)

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

Table 1: 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 above table shows results, Schwartz ,Hanan Quick , HQ SC and AIC values is minimal in comparison to the others two pulsate therefor .In this model, the optimal pulsate one has been chosen. It should be noted that the choice of optimal pulsate Schwarz criterion is used in this model. Because this criterion is based on the principle of Community Mvnys, offered fewer pulsate and eventually offered a parsimonious model .in the second pulsate AIC, SC and HQ showed the above results, Schwartz and Hanan Quick Heal is minimal compared to other values. Thus, in this model, the optimal pulsate will be chosen. It should be noted to choose the number of the optimal model pulsate the Schwarz criterion has been used because this criterion is based on the Morris Broadband, offers fewer pulsate and eventually a parsimonious model provides.

The first step, to estimate a vector error correction model, is adjusting for the length difference of the variables in the model. As regards that the number of pulsate model (VECM) of the difference variables pulsate is linked with the number of variables in the model, (VAR) while we know the number of these patterns pulsate, the number of pulsate, subtracting variables in the model (VECM) is obtained. Since to the optimal pulsate in the model (VAR) is two, pulsate difference variables in the model (VECM) will be one. In fact, the vector error correction model for inflation rate was obtain according to a long-term relationship, and zero pulsate in subtracting variables and as regards the intercept in short-term and long-term relationship.

5. Co-integration test

Table 2: Co-integration test is based on testing the effects of test

The null hypothesis	Statistics of Test	The critical value at the 5% level
There is no co-integration relationship	321.80	95.75
There is co-integration relationship	193.93	69.81
There are two co-integration relations	96.38	47.85
There are three co-integration relations	49.75	29.79

Table 3: Co-integration test based on maximal Eigen value test

The null hypothesis	The maximum Eigen value test statistics	The critical value at the 5% level
There is no co-integration relationship	127.87	40.07
There is co-integration relationship	97.54	33.87
There are two co-integration relations	46.62	27.58
There are three co-integration relations	28.86	21.13

The above results show that the hypothesis of no long-run relationship between the variables is rejected because of base statistics effects, 321.80 is more than critical value at the significance level of 5%, 96.58 95.75 and also hit a maximum Eigen value of 127.87 is more than the critical value at a significance level 5 % . The H0 hypothesis is rejected based on the lack of a long-term relationship. The table shows the results of a long-term relationship maximum hypothesis is rejected at a significance level of 5%. There is also the assumption of a maximum of two long-term relationship can be rejected at the significance level of the effect test, But the statistic test for the hypothesis that the maximum long-term relationship, especially in the maximum level of 5% cannot be ruled. There is also the assumption of a maximum of three long-term relationships that cannot be ruled out, because the value of statistics effect and the maximum Eigen value are less than the Fig. of significance level %5. Based on this test, special effects and boast three equations for the equilibrium does not rule out. Given that fact the maximum and effect test of three long-term relationship cannot be rejected[As regards that in the level of %5 we cannot reflects the existence of three long – term relationship according to Eigen test. Three long – term is the base of our choice (for research).]

6. Result of vector error correction model estimation

The first long-term relationship is a long-term equilibrium relationship between income tax and the second is exogenous variables and the relationship between current pay and exogenous variables. A third relationship is a long-term development expenditures and exogenous variables. The three estimated long-run vectors can be written as follows:

LY= -753.1318 LA1-171.8130 LA2

LA1= -703.0645 LY+181.5988 LA2

LA2= -714.3893 LY-661.9893LA

To estimate long-term relationships should be considered to identify these relationships. A Long-term relationship between a variable is linear combination between them. Which is not exclusive to individual .The software is .6. Eviews, long-term relationship estimated automatically based on the variables are normalized to finally obtain a unique relationship. A long-term relationship in the vector (4) based on income tax logarithmic variables (LY) is normalized and long-term relationship in the vector (5) based on logarithm of the current payment variable (LA1) and development expenditures LA2)) is normalized. In the Obtained long-term relationships, net of vector error correction model for each of the explanatory variables on the dependent variable will be analyzed separately and the linear relationship between variables in terms of long-term relationships, are repelled by the estimated model be neutralized.

Table 4: Long-term coefficients in the VAR model

	Y	A1	A2
LY	1	0	0
LA1	0	1	0.914386 (0.10340)
LA2	0	0	1

Table 5: Short-term adjustment coefficients in the VAR model

Independent variables	D(Y)	D(A1)	D(A2)
$Ecm(LY-LY)_{-1}$	0.000000 (.00000) [NA]	753.1318 (504.648) [1.49239]	171.8130 (209.451) [0.82030]
$Ecm(LA1-LA1)_{-1}$	703.0645 (399.762) [-1.75871]	0.000000 (0.00000) [NA]	-181.5988 (161.720) [-1.12292]
$Ecm(LA2-LA2)_{-1}$	-714.3893 (365.935) [-1.95223]	661.9893 (356.617) [1.85630]	0.0000 (0.0000) [NA]

7. Impulse response functions for the reaction (IRFs)

Excitation functions of the reaction, shows the dynamic behavior of the system variables over time when the momentum into the size of a standard deviation. In this section, Pvyass responses of model variables to measure momentum on a SD A2, A1, Y based on Chvlsky the analysis, are given for 10 cycles as follows:

In Fig. 1 time as the annual is, on the horizontal axis in the chart and the changes percentage on the vertical axis a jerk to one extent of standard deviation income tax on itself has the most effective, the most positive effect on the last period .But on the course of the next periods, this effect is lesser. Also this momentum is more .over the over the current payment on the final period on the other hand .this jerk has the most positive effect on development payment and the most negative effect on the second period.

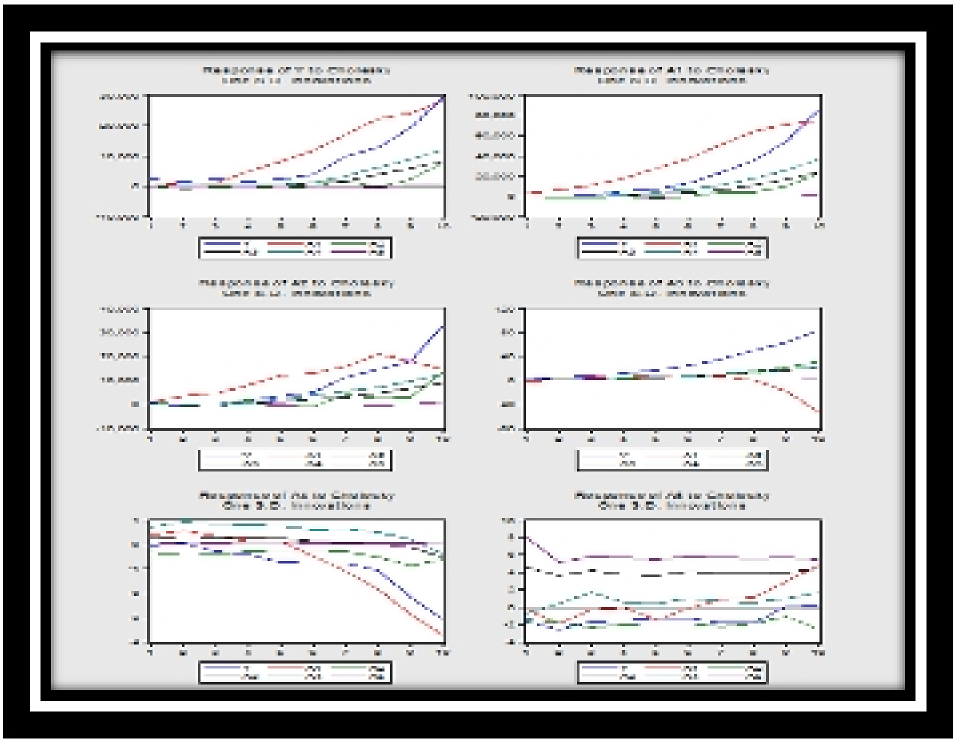

Fig. 1: Response function reaction diagram

8. Test of research 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.

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.

9. Conclusion and suggestions

Taxes as a tool to indirect guide through the impact on economic activities of enterprises can play a key role in policy the financial status indicator (current payments and payments for Development).government 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.

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