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The Evaluation of the Impact of the Government Revenues on the Government Current Expenditures A Case Study of Iran

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ABSTRACT

The main objective of this study is to determine the impact of the government revenues on the government current expenditures in Iran during 1982 to 2110. The paper uses the time series data which is taken from Central Bank of Iran. For estimating and analyzing of the model is handled the OLS method using Eviews8 and SPSS software. The model is applied the liner regression. Since the current government expenditures are government commitments, so they must be highly Stability. This survey investigates how the government revenues changing effect on the government expenditures. The results of the study show, in this model, the coefficients of the tax revenue, the oil revenue and the other government revenues are 1.33, 0.511 and 0.824, respectively. So the oil revenue is one of the most important factors to determine the government current expenditure level in Iran. The results of this paper can be useful for the decision makers in Iran.

KEY WORDS: Government Expenditures, Tax Revenue, Oil Revenue, Other Government Revenues and Iran.

INTRODUCTION

A government uses budget as a planning and financial tool in order to do its functions. When a government expenditures exceed its revenues it is said that the government has budget deficit. The study of Iran budget shows that imbalance in budget particularly budget deficit is one of the characteristics of its public sector economy [1, 5, 8 and 39].

The difference between the government revenues and the expenditures is calculated in order to measure budget deficit. Budget deficit is inherently debt. Its continuation will results in negative consequences in long term. Budget deficit can be reduced in two ways:

1. The government tries to increase its revenue resources
2. The government tries to limit its expenditures

It has been observed that in some cases revenue increase or expenditures reduction effect on its corresponding variable and makes the adopted policy ineffective. Therefore prior to any budgetary policy-making to control budget deficit the relationship between the government revenues and the expenditures should be specified and by finding the variables correlations and understanding how they affect upon each other appropriate financial policy is adopted [7, 9 and 10].

One of the public financial issues which have not been studied well enough yet is the relationship between the government revenues and the government current expenditures. Determination of the relationship between the government revenues and the expenditures provides the possibility to use the appropriate financial policy to reduce budget deficit or to solve it. In fact the question is each of the revenues variables how much to effect on the government current expenditures. The degree of the relationship between these variables can effect on the exercise of financial policy to reduce budget deficit [3, 6, 11, 30 and 31].

In Iran budget deficit is one of the characteristics of its public sector economy. Generally speaking the exercised policy for its control needs to more effective. Because the government expenditures have increased in some the years its revenues have declined. Therefore before any decision on how to reduce budget deficit the relationship between the variables should be determined [2, 4, 38 and 39].

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The research focuses on the relationship between the variables by the econometric methods. In fact, the main purpose of this study is to estimate the relationship between the government revenues and the expenditures in order to cope with Iran budget deficit. Determination of the relationship will assist the government exercise the appropriate financial policy to reduce budget deficit. Determining of the relationship between these variables will help the government to control its budget deficit by choosing the suitable policy.

Over the recent years some studies have been conducted on the effects of the budget deficit on Iran economy. For example, Blackley (1986) found that raises in the federal tax revenues precede raises in spending, and so may not cause to smaller federal deficits [9] and the other study, in 1986, was shown evidence to support the view that spending rises cause to tax rises at the federal level by Von Furstenberg, Green and Jeong [37].

Most of these studies have been on the effect of the budget deficit on the variables like economic growth and inflation; however, no efficient study has been carried out on the relationship between the government revenues and the expenditures or if any, it was in the past decade. Therefore, the study of the causative relationship between the said variables on the basis of the latest data is suggestive of its new dimension; furthermore, since economic conditions of Iran differ from those of most countries of the world in term of institution, structure and organization, the research findings can enrich the literature, other papers on this subject include [12- 36]

The main questions in this study are as follow:

1. Is there a significant relationship between the tax revenues and the government current expenditures in Iran?
2. Is there a significant relationship between the government oil revenues and the government current expenditures in Iran?
3. Is there a significant relationship between the other government revenues and the government current expenditures in Iran?

The main hypotheses in the research are as follow:

1. There is a significant relationship between the tax revenues and the government current expenditures in Iran.
2. There is a significant relationship between the government oil revenues and the government current expenditures in Iran.
3. There is a significant relationship between the other government revenues and the government current expenditures in Iran.

MATERIALS AND METHODS

Research method is descriptive and analytical. To achieve the goal theoretical discussions and empirical studies will be conducted by library methods. The required data, the related background information on empirical studiers and literature is collected using the internet and the library methods. The required statistical data is gathered from statistical data of Central Bank of Iran and Iranian Economic Literature & Data Bank (IELDB). After collecting the secondary data, it is necessary to determine to be or not to be the stationary for the data [31]. Unit root test of Augmented Dickey-Fuller (ADF) is applied for it. Then is used the linear regression model to estimate the relationship between the government revenues and the expenditures in Iran. To estimate that model, the survey applies SPSS and Eiews8 Software. Then significant of the model and coefficients investigates using appropriate statistical analyzes.

The model which is applied in this research as follow:

$$GE = \alpha_1 + \alpha_2 TAR + \alpha_3 OIR + \alpha_4 OTR$$

Where

GE = the government current expenditures in Iran

TAR = the tax revenues in Iran

OIR = oil revenues in Iran

OTR= the other government revenues in Iran

The statistical Population limits Iran economy. The variables which are used in this study are annual time series data mainly from 1982 to 2010.

RESULTS AND DISCUSSION

The first step to estimate the model is checking the stationary for the time series data. The unit root test of Augmented Dickey-Fuller (ADF) is applied for test the stationary. Due to the results of the ADF test, at 5% confidence level, all of the data are stationary for the first differencing. In other words, the variables have not unit root test while the variables are converted to first difference [31].
The results of this test are in the following table:

Table1. The results of ADF test

The name of variable	ADF statistics	Critical Value at 5%	Stationary at
GE	-3.798221	-3.644963	1st difference
TAR	-5.548173	-3.632896	1st difference
OIR	-4.195185	-3.587527	1st difference
OTR	-4.588556	-3.644963	1st difference

In order to estimate the relationship between the governmental current expenditure and the government revenues in Iran are applied the linear regression model. The coefficients of that model can be found from the below table:

Table2. Coefficients of Model

Included observations: 28 after adjustments				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
OIR	0.511191	0.089356	5.720814	0.0000
OTR	0.823867	0.375234	2.195606	0.0380
TAR	1.332677	0.246128	5.414560	0.0000
C	6115.917	7858.466	0.778258	0.4440
R-squared	0.965253	Mean dependent var		150427.9
Adjusted R-squared	0.960910	S.D. dependent var		85791.85
S.E. of regression	16962.17	Akaike info criterion		22.44692
Sum squared resid	6.91E+09	Schwarz criterion		22.63724
Log likelihood	-310.2569	Hannan-Quinn criter.		22.50510
F-statistic	222.2351	Durbin-Watson stat		1.587210
Prob(F-statistic)	0.000000			

Therefore, the linear model for this study can be shown as follow:

$$GE = 6115.917 + 1.33TAR + 0.511\ OIR + 0.824\ OTR$$
$$(5.414560) \quad (5.720814) \quad (2.195606)$$
$$\bar{R}^2 = 0.961$$

The results of the study show, in the model, the coefficients of the tax revenue, the oil revenue and the other government revenues are 1.33, 0.511 and 0.824, respectively. Due to the information of above table all of the coefficients are significant at %5 confidence level.

The results of the survey state the oil revenue is one the most important factor to determine the governmental current expenditure in Iran. The model coefficients are also statistically significant due to ANOVA test (see the ANOVA table as the follow):

Table 3. ANOVA[a]

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	191821331708.921	3	63940443902.974	222.235	.000[b]
Residual	6905167278.827	24	287715303.284		
Total	198726498987.748	27			

Due to the ANOVA data in table 3, the Sig is near to zero so the correlations are significant among the governmental current expenditure and the independent variables also the t-test statistic confirms it and also the value of R-Square is enough big which indicates the contribution of TAR, OIR and OTR on the governmental current expenditure is 0.96.5%. The closeness of R2 and Adj-R2, 0.96%, shows the Goodness of fit of data. Therefore, the lack of the correlation among the governmental current expenditure and the government revenues, the null

hypothesis, is rejected and so the alternate hypothesis is accepted. In other words, there are the positive correlations among the governmental current expenditure and the independent variables. Generally, all of hypotheses are accepted means that [31]:

1. There is a significant relationship between the tax revenues and the government current expenditures in Iran.
2. There is a significant relationship between the government oil revenues and the government current expenditures in Iran.
3. There is a significant relationship between the other government revenues and the government current expenditures in Iran.

So the government oil revenues play a main determining for the government current expenditures. Since the government current expenditures is a part of the government vital obligations and have to pay it so it must be provided from those revenues which are more stable and the government is sure to give them every time. So the results of the research can be useful for the decision makers in Iran.

Conclusions

This study determines the impact of the government revenues on the government current expenditures in Iran during 1982 to 2110. This survey investigates how government revenues changing affect on government expenditures. The results of the study show the oil revenue is one of the most important factors to determine the government current expenditure level in Iran. So the results of this paper can be useful for the decision makers in Iran. Furthermore, since economic conditions of Iran differ from those of most countries of the world in term of institution, structure and organization, the research findings can enrich the literature.

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