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ANALYSES THE FACTORS INFLUENCING PUBLIC DEBT IN D8 STATES

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ABSTRACT

Every country wants to achieve economic growth and development that in this area is needed incentives which ultimately led to the creation of the debt for the country. Hence, economic prudence may impose liabilities or the debt with the intention of turning it into a useful asset account. In this study, the model has been estimated by using panel data for the D8 states for the period 2000 to 2010. The results show that the population of the state is an increasing public debt. Foreign direct investment has been decreasing effect on the public debt and government deficits. Interest rates increase the government deficit has in D8 countries. Government consumption and investment spending will increase the budget deficit. Trade openness reduces the deficit and inflation increases the public debt. The results show also that there is a panel cointegration relationship between variables the budget deficit in long-term by Pedrony test.

Keywords: Debt, Economic Growth, Di-Eight Countries, Panel Data

INTRODUCTION

A characteristic of underdeveloped countries is due to social, economic, structure and size of private investment is minimal. So the task of increasing the rate of net investment in the economy of the state; but due to a shortage of capital for investment, the government is forced to adopt a policy of deficit and deficits in developing countries forbid. It can be used

for economic development and social investment in top secret plans of the method used. Although this policy could be partially overcome the economic problems and deficiencies in infrastructure and to increase efficiency and productivity. But it may cause big consequences and negative consequences (**Bigdelli purpose, 1384: 90**). The general framework of this research is

based on first after introduction to literature and records related to the topic of the thesis are dedicated. According to studies, reviews, and more research is dedicated to the extraction pattern and continue with the estimated model using panel data for 8 countries dedicated. Finally, according to the results of tests conducted to conclude. And offers consistent results and articles dedicated to the topic.

Theoretical Background of the Research Deficit and Factors Affecting

In economic literature, many economic scholars, the budget has been defined thus: Government income and expenditure budget is to keep the balance between revenues and costs. In economic literature, an increase in government spending relative to income, it is called a deficit. In a general classification of types of administrative budget deficit, structural, and cyclical split. The lack of a coordinated administrative agency makes a return to the lower state, gender concepts to show lower performance fees. Structural deficit in the economy goes wrong. In this space is favored sectors of the economy are interrelated and not doing any of his duties correctly. Cyclical deficit comes from the economic situation of the country. When the economy is in a boom, increasing government revenues is certainly and government spending increases, but when the situation has changed and a recession

begins, revenues have declined sharply, but government spending does not change, and hence there is a budget deficit.

On the other hand, when the economy is experiencing a recession, the government has to keep their costs at a level while the private sector to fill the void in the market demand. The state is facing a budget deficit. But it is very important how finance works differently in practice. In general, the economic literature, the supply deficit includes:

Increasing income, cutting costs and borrowing from domestic and foreign sources; Each of them has certain consequences will follow (**Frzyb, 1375: 80**). The relationship between budget deficits, money growth and inflation, the main issues that will be discussed at the macroeconomic level. Policy, budget deficits in many countries as an instrument of fiscal policy in Iran, the length of the policy is applied consistently. In this study, the relationship between government budget deficits and macroeconomic variables has been investigated. Statistical evidence of the empirical literature on inflation data and the ratio of budget deficit to producing countries show the relationship between budget deficit and inflation are not the same for all countries. Some of these studies include research "**Mtzlr**" (1951), "**Patyn Kane**" (1965), "**Freedman**" (1968),

"Sargent and Wallace" (1981), Dior "(1982)," Miller "(1983) cited.

The results show that the budget deficit causes inflation. Some researchers, such as Sargent and Wallace argue that eventually forced the central bank to finance the budget deficit on this basis, the increase in money supply leading to inflation will be at least in the long run. Other researchers such as the "Borough" (1979 and 1978) and "Eisner" (1989) argue that the deficit is a result of inflation, not its creator. A survey of various studies show that the method of financing and macroeconomic conditions on the effect of budget deficits on economic variables contributed (Azizi, 191: 1385). Overall inflation, budget deficits and how to provide it as offering views of Friedman (1968) has attracted much attention. In the literature, the relationship between budget deficits and inflation are important aspects among which may be mentioned a positive relationship between budget deficits and inflation due to an increase in the real value of debt and increase their net wealth is created.

In this case, the budget deficit, the total expenditure and the price level, because the economy is at full employment activity, increases (Dior, 320: 1982). This view of history is more than other perspectives, so that Mtlr (1951) and Patyn Kane (1965) is also mentioned in their articles. (Levy,

143: 1981) Friedman (1968) argues that the monetary authorities can, especially in long-term inflation adjusted by controlling the money supply. In other words, the budget deficit can cause swelling, but when it is realized that the budget deficit changing the money supply is financing. The budget deficit that has led to an increase in the money supply would be inflationary. On the other hand, if the deficit is financed by bonds. Friedman (1981) noted that both methods of financing, instead of spending caused government spending replacing private sector. In fact, the resources that may be for private consumption or investment will be spent in productive activities, the public sector is attracting. The effect of this type of financing is that interest rate increases and incentives for private sector investment and savings decrease. (Darat, 231: 2001) whether or not the inflationary financing of budget deficit bonds depends on the method used by monetary authorities to fund the budget deficit. If the monetary authorities have fixed interest rates, the budget deficit is financed by bonds, would be inflationary. This is because increasing the money supply which will eventually lead to higher prices. Sargent and Wallace (1981) argue that the central bank is forced sooner or later the budget deficit is financed. Miller (1983) argues that government budget deficits,

regardless of how it is financed, inflation. Policies of the various deficits lead to inflation. The central bank may be forced into deficit, as Sargent and Wallace have said by finances, but even if the central bank does not meet the budget deficit, deficits because of "crowding effect" of inflation. In this case, the budget deficit has been financed with the money supply, by increasing interest rates, resulting in inflation. In other words, if the budget deficit through domestic borrowing (bonds) which means increased government demand for credit financing is available in the community, increased interest rates and the decline in private investment. Of course, the fact that governments in countries with developed bond market for their deficits by selling bonds, they use more engagement takes place (**Hosseini-Nasab, 43: 1389**).

Background of Research

Kmyjany and Hramy (1391) in an article titled "Estimating the effects of budget deficits on Iran," stated, in some countries, such as Iran, the government has an important role in the management of activities and doing a lot of construction activity, and health care is the responsibility of the government. Government funding needs to perform its duties may be due to the failure of anticipated revenues in the budget cost is facing a budget deficit or excess positions. The main question of this

paper, determination of the influence of variables such as subsidies, inflation, tax revenues, oil revenues, government spending, economic growth, war, elections, unemployment and the deficit of the state budget. Causes and effects of these variables based on Keynesian theory, the theory of optimal taxation, random borrowed theory, the theory of public choice. In the present study, the budget deficit is defined as the difference between expenditures and revenues and the dependent variable in the model is. To test the effect of these variables statistics between the years 87-1358, and to examine how these variables impact on the budget deficit the OLS is used. The results show that the negative effect of oil revenues, tax revenues, economic growth deficits and the positive effect of state subsidies and public expenditure is the government budget deficit.

Karim Emami, S. (1391) in an article linked to inflation and economic growth to suggest that the public deficit, the results of the study suggests that the public deficit inflation and recession and slow economic growth in the country. Moreover, Iran is a country dependent on revenues from oil exports on this basis, policy makers and planners in the public sector must be independent of oil revenues, tax revenues and an annual budget of absorbing reform

bills tune. Finally, consider downsizing the public sector.

Shajarian and colleagues (1391) in an article titled "The budget's dependence on oil and budgetary impact on inflation and the balance of payments in the period (1388-1370) found that, the budget for the balance of payments has a positive correlation with the percentage increase (decrease) in funds, balance of payments 06% increase (decrease) finds the coefficients of a one percent increase (decrease) in Finance, Equity 31% increase (decrease) finds and positive relationship between the two. There is the positive correlation between oil revenues and the state budget. A one percent increase (decrease) in oil revenue increased 54% budget reduction will do.

Strick (2013) in a study titled "Public Debt Policy: Neoliberalism, capitalist development and restructuring of the state ", states that since 1970, increase in public debt in the economy of democratic capitalism has been extensive and generally weak economic growth, rising unemployment, rising inequality, tax resistance has been growing and declining political participation. After an initial period of fiscal consolidation in the 1990s, public debt in response to the Great Depression, mutations have been unprecedented. Renewed efforts for fiscal consolidation

have been accompanied to reduce public spending, private sector investment.

Natoly and whic (2013) in a study entitled "Fiscal consolidation and public debt sustainability in countries GIPSI", suggest that correcting imbalances and reduce public debt as a central priority for the euro zone's peripheral countries (the so-called countries GIPSI). However, there is no consensus on the optimal attaining this goal. In this study, the effects of fiscal consolidation policies on macroeconomic performance of the countries studied. In addition to the analysis report provided by the International Monetary Fund about the sustainability of public debt has been paid for the countries studied. Finally, a combination of policies to achieve this purpose is provided.

Model

Model used in this study are as follows:

$$DB=F(\text{pop, FDi, GO, GDP, P, r, OP}) \dots\dots\dots (1)$$

Dependent Variable

General Government Debt (Government Deficit) Independent Variables

Population, foreign direct investment, public spending, interest rates, GDP growth, inflation and trade balance (the sum of exports and imports)

In this study, using panel data of D8 countries for the period 2000-2010 using data using software to estimate the model presented in chapter dedicated Eviews and to process the information and distill it

Eviews software is used. The relevant data is extracted from the website of the World Bank and the Central Bank.

Estimation Model

Study Variables Stationary

The model is used to estimate the stationary all variables tested. For non-stationary variables in the time series data and what about the pseudo-panel data regression is causing the problem. But contrary to what is customary in the case of time series data, In the case of panel data can be used to test stationary Dickey Fuller and Augmented Dickey Fuller test (ADF) used, but a number of variables need to be tested stationary. For this we can use the following tests. Test Levin, Lin and Joe (LLC), we test, boys Vshyn (ISP), Brtvng test, Fisher - ADF. The results indicate stationary all variables in the model. In these tests the hypothesis H0, based on our results and hypothesis H1 based stationary stationary vary, as can be seen in **Table 1-4**, all the variables are stationary in levels.

In order to test the hypothesis you need to be commenting on the picture or the compilation of data. In order to calculate F-statistics Lymr is that if F is larger than F table, hypothesis is rejected and the use of panel data is better. Otherwise the panel data method is used. Lymr the F test, the hypothesis of equal intercept (data compilation) to the opposite hypothesis,

anisotropy intercept (using panel data) is placed.

So we can write:

$$H_1 : \alpha_1 = \alpha_2 = \dots = \alpha$$

These models have been tested using Eviews software. Selection, based on panel data estimation method or combination of methods, data, the F statistics Lymr used. In this test, the hypothesis H0, the combined data and the hypothesis H1, the estimation procedure is based on panel data. Lymr F statistics showed the number 841/329, with zero indicating the possibility of using panel data is verified. Therefore, according to the statistics and analysis of panel data will be accepted. To make decisions about the use of fixed effects or random effects methods, Hausman test is used. This test is actually a test of uncorrelated individual effects and the explanatory variables is estimated by generalized least squares, Under hypothesis H0, compatible with the hypothesis H1, is inconsistent. In other words, using random effects where the generalized least squares estimators used. Hypothesis H0, the adjustment coefficients, while the hypothesis H1, based on the rejection of consistency. If the Hausman test the hypothesis H0 is rejected, the method used to estimate the random effects method. (Baltajy, 2005) Hausman test value 123.06 and the probability is zero that indicates the fixed effects method is verified. Estimated

using generalized least squares (GLS) used in panel data. Weight in this study was based companies (Cross-section (weights another statistic that takes into consideration the statistics of Wald's chi-square . Given the value of this statistic with probability zero, the regression is significant. Test LR, or is heteroscedasticity test is a chi-square distribution.

Null of homogeneity of variance assumption is against heteroscedasticity. Model estimated in this study are as follows:

It should be noted that all of the variables are used. According to the coefficient of determination indicates a good fit of the model and variables used in the explanatory power of the model shows 75%. According to the method used is panel data is a good number. Durbin Watson also indicates the absence of autocorrelation. F statistics are the fitted coefficients equal to zero rejects. Mark coefficients are all consistent with the theory is presented and theoretical and given the possibility coefficients show the effectiveness of all variables used in this study and they are significant. The breakdown of results is as follows:

Population show positive and significant impact on public debt (government deficit). Foreign direct investment shows a significant negative impact on public debt (Government deficit). General government expenditure show significant positive

impact on public debt (government deficit). Interest rates show significant positive impact on public debt (government deficit). GDP growth show negative and significant impact on public debt (government deficit). Inflation show positive and significant impact on public debt (government deficit). Trade balance (the sum of exports and imports) has a negative impact on public debt (government deficit).

According to **Table 5**, panel rho statistic (rho-Statistic) to $-2 / 417$ with significant probability, and panel Phillips Perron (PP-Statistic) equal to $-12 / 179$ with a significant probability of zero and panel Dickey-Fuller (ADF-Statistic) $-8 / 258$ times with no significant risk, not reject the null hypothesis that there is a cointegration relationship. The Dickey-Fuller test group and rho that research also suggests rejecting the null hypothesis. The results of the panel cointegration Pedrony show long-term relationship between the variables.

Test Requirements

Coefficient of Linear

To test the linearity of the index procedure (Condition Index) and eigenvalues (Eigenvalue) using SPSS software is used. Whatever the situation is closer to zero, in other words, less than 30 that show there is a serious lack of linear estimation is desired. No matter how well the eigenvalues are different from zero that there is a serious

lack of linear estimation is desired. The results of both the linear test results show that it seems to be rejected.

Heteroscedasticity Test Residuals

One of the assumptions of classical regression models, consistency is the residual variance. The basic assumption is that every relationship. To evaluate the variance anisotropy assumed in this study ARCH- LM test is used. Assuming no difference in the variance of the test results is provided in Appendix but a summary of this study was to test the following table is presented:

As described in the previous chapter, the null hypothesis and let's face it, in this case, is defined as follows:

H0: error variance values are matched

H1: The variances of the error values are not identical

In this test the null hypothesis of homogeneity of variance indicated that there is and according to Table 6 and the p-value obtained from ARCH- LM test for correlation is estimated 14/0. The resulting number is the significant level of 05/0 is a p-value ≥ 0.05), as a result, the null hypothesis (no homogeneity of variance) is accepted and show that there is no heteroscedasticity.

Examination remains normal multiple regression models:

To check the remaining amount of diagrams Chndk- normal crouch (QQ-plot), Jark-test

and histograms for error values used. Jark-to test hypotheses against the null hypothesis as follows:

H0: The residuals follow a normal distribution model

H1: The residuals do not follow a normal distribution model

According to the probability or p-value obtained for Jark-order statistics are considered so there is no reason to reject the null hypothesis of normally distributed residuals, the model will follow. Further tests using histograms can be seen the residual values of the model will follow approximately a normal distribution.

Chart A: normal

According to statistics Jakvbra show the normality of the estimated residuals. 4-2-4-test its lack of correlation residuals to investigate the autocorrelation between the error values. GATT Brvsh- Frey test (BG test) was used. Against the null hypothesis and the assumption of this test are as follows:

H0: no autocorrelation between the errors

H1: there is autocorrelation between errors

According to the table, you will see the output of this test can be observed probability value or p-value the probability value is greater than 5% that the null hypothesis was confirmed by the presence of autocorrelation between the errors is rejected.

Figure 1: Evaluation of normal residuals of the multiple regression models

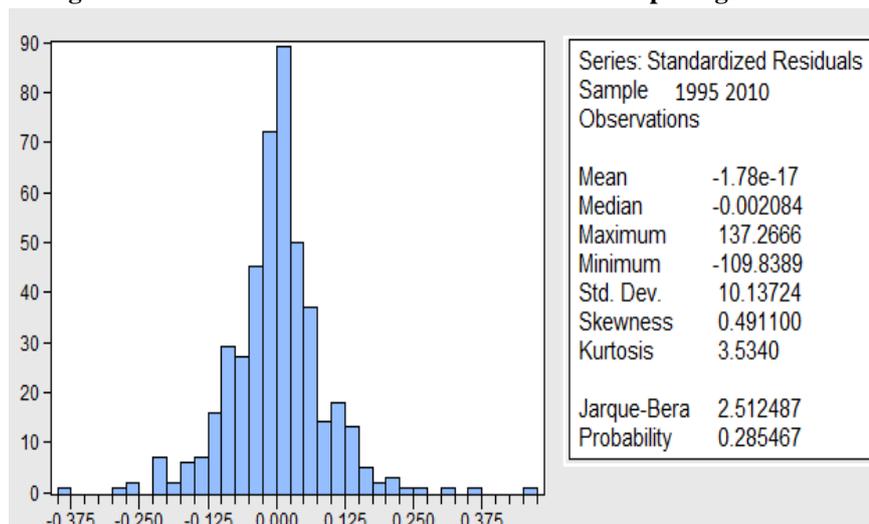


Table 1: Results of Static Variables

Results	Prob	Levin, Lin & Chu t Statistic	Var
I(0)	0.0380	-1.77470	pop
I(0)	0.0052	-2.56456	FDI
I(0)	0.0388	-1.76509	GO
I(0)	0.0006	-3.26048	r
I(0)	0.0081	-2.40463	GDP
I(0)	0.0008	-3.15245	Inflation
I(0)	0.0831	-1.38420	OP

Table 2: F-statistics Lymr

prob	DF	F-statistics Lymr	result
0.0001	(7,110)	12.644516	Panel data

Table 3: Hausman-statistics

prob	DF	Hausman-statistics	result
0.0001	7	88.511610	Fixed effect

Table 4: Regression Result

prob	t stat	SE	Coef	Var
0.0132	2.43523	3.96399683	9.653244	Constant
0.0001	-6.52311	0.802016523	-5.231642	GDP
0.0121	-2.51527	2.47033559	-6.213561	FDI
0.0232	2.26523	0.898434596	2.035161	Inflation
0.0253	-2.80254	3.288242095	-9.21543	OP
0.0532	1.944118	1.096975595	2.13265	POP
0.0.215	1.557308	1.955432066	3.04521	r
0.0001	6.52515	0.299202317	1.95234	GO
R^2		0.74	DW	1.8
R^2 adjusted		0.73	F	23.67
			F prob	0.0001
		329.841= F lymer	Prob F	0.0001

Table 5: Pedrony test pattern

result	stat	
0.021	-2.417	rho
0.0001	-12.179	PP
0.0001	-8/258 -8.258	ADF

Source: Findings

Table 6: coefficient of linear

Model	Dimension	Eigen value	Condition Index	Collinearity Diagnostics ^a							
				Variance Proportions							
				(Constant)	DB	FDI	GDP	Inf	Govern	pop	o
1	1	2.993	1.000	.00	.00	.00	.00	.00	.00	.00	.00
	2	2.363	1.125	.05	.00	.00	.03	.00	.00	.02	.00
	3	2.000	1.223	.00	.04	.07	.00	.00	.00	.00	.00
	4	.356	2.899	.74	.00	.04	.05	.00	.00	.10	.00
	5	.211	3.764	.04	.17	.66	.21	.00	.00	.05	.00
	6	.069	6.569	.03	.79	.23	.70	.00	.00	.82	.00
	7	.060	7.953	.13	.00	.00	.01	.11	.19	.00	.99
	8	.052	8.309	.00	.00	.00	.01	.89	.81	.00	.01

a. Dependent Variable: ee

Table 7: Test results for the remaining variance heteroscedasticity

Hypotheses	F	Obs*R-squared	p-value	Result
hypothesis of : homogeneity Ho	1.72	18.45	0.14	Accept H0
H1				

Table 8: Test your lack of correlation residuals

Hypotheses	Stat F	Obs*R-squared	p-value	Result
no correlation:(H0)	0.51	8.45	0.65	Accept H0
correlation:(H1)				

CONCLUSIONS

The results show that the population of the state is an increasing public debt. It would be based on the issue that needs to populate the cost of health care, education and ... All of which will increase the deficit and government spending. Based on the results of the research, foreign direct investment has decreasing effect on public debt and budget deficits, and suggests foreign direct investment increased revenues and this leads to a reduction in the government deficit will be in D8 member states. The results show that the interest rate can

increase government deficit has is D8. In other words, an increase in interest rates on output and inflation has a negative significant element and the resulting tax revenues have increased public debt. The results also show that government spending and investment, government deficit increases. In fact, these two variables are the most important part of the state budget, the state government revenues and expenditures make up a significant effect on the federal budget deficit have. It also reduces the government deficit to GDP has eight member countries of the D8. In fact, the

increase in GDP and thus the incomes of the population, the population increased financial strength and thus income deficit will increase which ultimately will lead to a reduction in the government deficit. The results also show that the degree of trade openness and inflation.

In order to reduce and increase the public debt will be eight member states, actually increase tax revenues to the state will lead to trade and this will lead to a budget deficit. Inflation also leads to reduced production in the country will have to reduce the deficit. The results showed a clear pattern, all coefficients have the expected signs (Consistent with theoretical studies). According to the results of the study will be offered the following suggestions:

According to the results of government spending and investment (public expenditure), Government deficit increases, consistent policy of cutting spending or capital can improve the state's budget deficit. According to the conclusion that GDP government deficit has been reduced, government strategies based on economic growth can lead to deficit reduction Bvzjh. Finally, the proposed policy is based on the conclusion that the degree of trade openness and inflation. In order to reduce the government deficit will increase, it is the government's strategy is based on free trade and to control inflation. Consistent with

results showing that the government deficit is the interest rate increases, government policies based on the interest rate cut is not in order, but based on the structure of the economy. According to the survey results, which show an increase in the public debt of the state's population?

The country's population control policies based on the desired public debt the government cannot control. Based on the results of the research, foreign direct investment

The effect of reducing the public debt and budget deficits have and proposes a policy based on the maximum absorption of foreign investment in the country is a member.

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