

ANALYTIC STUDY FOR THE EFFECT OF OIL REVENUE ON GROSS DOMASTIC PRODUCTION AND FEDERAL BUDGET AND TRADE BALANCE IN IRAQ ECONOMIC 1990-2013

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ABSTRACT

The aim of study is to analyze effect of oil revenue on gross domestic production and federal budget and trade balance in Iraqi economic it focuses to test the hypothesis of circadian equivalence there is no relationship between the federal budget and trade balance- and Keynesian proposition _a causal relationship positive budget deficit towards the trade balance as well as test alternative hypothesis for kiswani, 2000. I have been using data for the period (1990 -2013).

KEYWORDS: Economics

INTRODUCTION

Although Iraq's possession of enormous oil wealth is estimated at Estimated at (143) billion barrels., Which ranks third in the world after Saudi Arabia and Canada, this wealth at the moment, offers something a little more than a financial resource, it is the main revenue arising from the use of oil, having a part of economic policy, charting a course of sustainable growth equitably through targeted sectorial policies, and budget allocations.

Unfortunately, that Iraq's wealth of resources will remain a threat to its democracy is stable, but will stand a potential obstacle generally sustainable growth. So Iraq stands at a crossroads as part of the existence of an economic broken to a large extent would disable the necessary investment, which leads to deficits and imbalances in total.

Over the Iraqi economy stages of multiple economic, and according to political circumstances. Reflected in its performance. Which affected key economic variables such as GOP, the general budget, the balance of trade, and others. And can be determined and briefly as follows:

- The first stage: 1970-1980, is the stage of the economic recovery and social in Iraq.
- The second stage from 1981 to 1990: the outbreak of the Iran-Iraq war .which began in the last third of 1980 and the subsequent continuation.
- Phase III: 1991-2002: the stage of the international war led by the United States and the strict international sanctions on Iraq.
- The fourth stage: 2003-2013: stage invasion of American forces in Iraq in 4/9/2003. on wards.

RESEARCH A PROBLEM

The research problem of structural imbalances in favor of the oil sector, which reflected negatively on the performance of all indicators and economic sectors, if dominated by the oil on the structure of foreign trade, and

contributed more than half of GDP, and has become the main source of financing the federal budget.

Model and the Results of the Econometrics Analysis

Used regression analysis to estimate the expected value of the dependent

Variable through our knowledge of the values of explanatory variable is projected through the statistical program (SPSS) Statistical, Been reached following results.

The First Econometrics Model

When a regression analysis of the data period 1990 - 2013 in accordance with the program.... Statistical function studied economic (GDP, function in the

Independent variables (oil revenues, the federal budget, and the balance of trade), we get the following results:

$$Y = f(X_1, X_2, X_3)$$

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3$$

$$Y = 1.3637 + 1.818X_1 + 0.012X_2 + (-90.471)$$

Where

Y = Gross Domestic Production

X₁ = Oil Revenues X₂ = Federal Budget X₃ = Balance of Trade

Where the relationship appeared positive correlation between GDP, and oil revenues, and the relationship is also direct correlation between the budget and the gross domestic product. This is represented by the positive signal for the two parameters (B₁, B₂) Emerged as the parameter value (B₁) equal (1.818) this means that the increase in oil revenues by a single unit with the stability of both

The value of (the federal budget, and the balance of trade) leads to increased GDP by (1.818%) from this unit, The parameter (B₂) is equal (0.012) This means that the increase in the budget with the stability of both the revenue this unit). And appeared relationship counterproductive between GDP and the trade balance and this is what interpreted negative sign for the parameter (B₃) emerged as a value (- 90.471) This means that the increase in the balance of trade by a single unit with the stability of both (oil revenues and the budget) leads to a decline in the value of GDP the total by (90.047%) of this unit.

The Results of the First Econometrics Model

Table 1

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	X3, X2, X1 ^a	.	Enter
a. All requested variables entered.			
b. Dependent Variable: Y			

Table 2

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.974 ^a	.949	.941	2.02811E7	1.287	
a. Predictors: (Constant), X3, X2, X1						
b. Dependent Variable: Y						
ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.447E17	3	4.822E16	117.235	.000 ^a
	Residual	7.815E15	19	4.113E14		
	Total	1.525E17	22			
a. Predictors: (Constant), X3, X2, X1						
b. Dependent Variable: Y						

Table 3

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.363E7	5769881.330		2.363	.029
	X1	1.818	.127	.967	14.372	.000
	X2	.012	.182	.005	.068	.946
	X3	-90.471-	166.686	-.028-	-.543-	.594
a. Dependent Variable: Y						

Table 4

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.2923E7	2.5010E8	7.5653E7	8.10906E7	23
Residual	-3.90466E7	3.72906E7	.00000	1.88477E7	23
Std. Predicted Value	-.774-	2.151	.000	1.000	23
Std. Residual	-1.925-	1.839	.000	.929	23
a. Dependent Variable: Y					

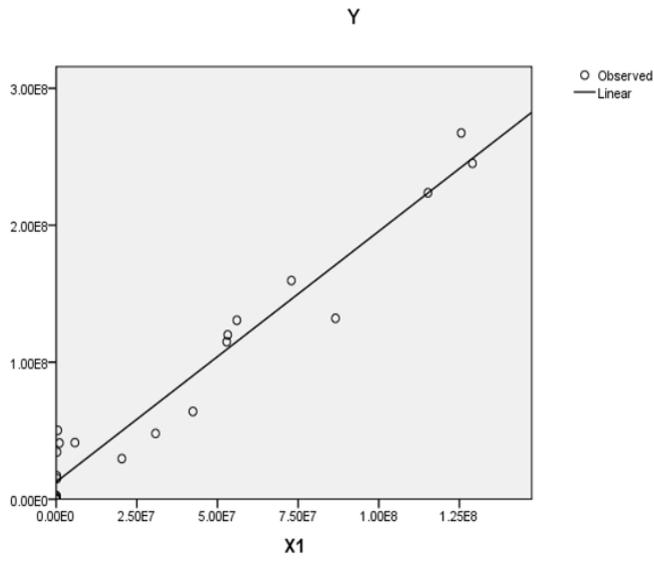


Figure 1

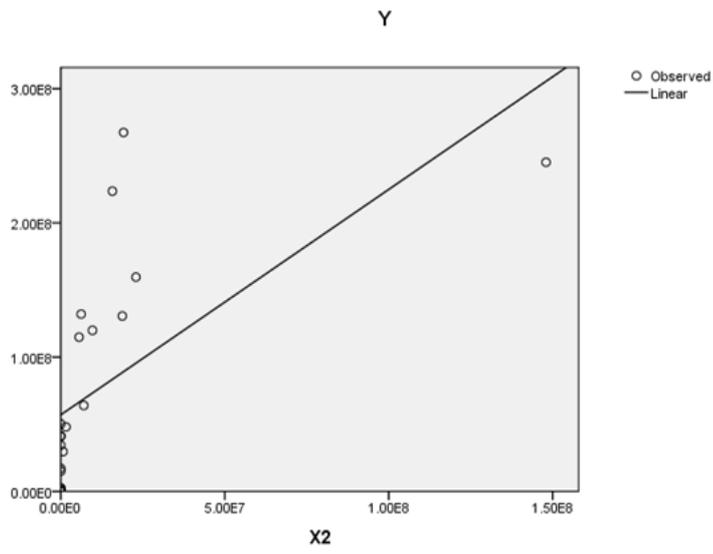


Figure 2

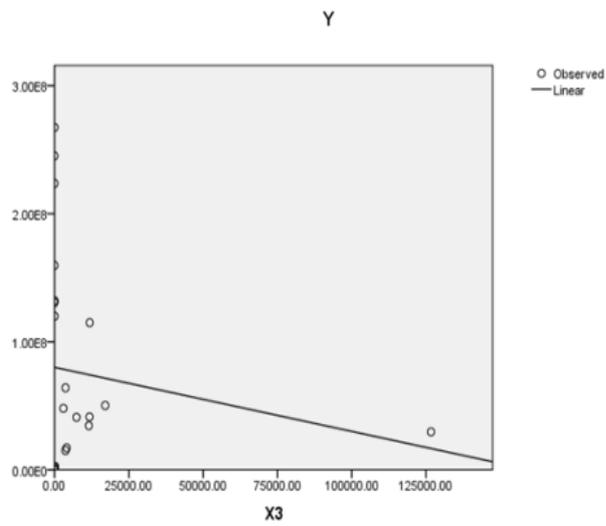


Figure 3

The Second Econometrics Model

When a regression analysis of the data period (1990 - 2013) the economic function used (budget deficit function in the trade deficit and oil revenues) came to the conclusion follows:

$$\text{Log } 'y = 'B_0 + 'B_1 \text{ LOG}x_1 + 'B_2 \text{ Log } x_2$$

$$\text{Log } I_y = 0.163 - 0.548 \text{ Log}x_1 + 0.978 \text{ Log}x_2$$

Where

Y= Budget Deficit X1= Trade Deficit X2= Oil Revenues

As it is not possible to reconcile the linear model is simple or multi between

variables and because the nature of the relationship between the explanatory variables and the dependent variable IS the non-linear relationship for this is searched for an appropriate model for these variables, and found that the model logarithmic best model and that the lack of a linear relationship between the variables at the level of values and therefore the logarithmic model is the best what can be represented by the relationship between these variables. The results were as follows: During the discretion of the equation mentioned above shows that the inverse relationship between the trade deficit and the budget deficit

Because negative sign for (B1) and proportional relationship between oil revenues and the budget deficit based on the positive signal (B2).

The Results of the Second Econometrics Model

Regression

Table 5

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	LX2, LX1 ^a	.	Enter
a. All requested variables entered.			
b. Dependent Variable: LY			

Table 6

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.926 ^a	.858	.844	.82834	.942
a. Predictors: (Constant), LX2, LX1					
b. Dependent Variable: LY					

Table 7

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.015	2	41.508	60.494	.000 ^a
	Residual	13.723	20	.686		
	Total	96.738	22			
a. Predictors: (Constant), LX2, LX1						
b. Dependent Variable: LY						

Table 8

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.163	.725		.225	.824
	LX1	-.548	.121	-.384	-4.547	.000
	LX2	.978	.100	.822	9.742	.000
a. Dependent Variable: LY						

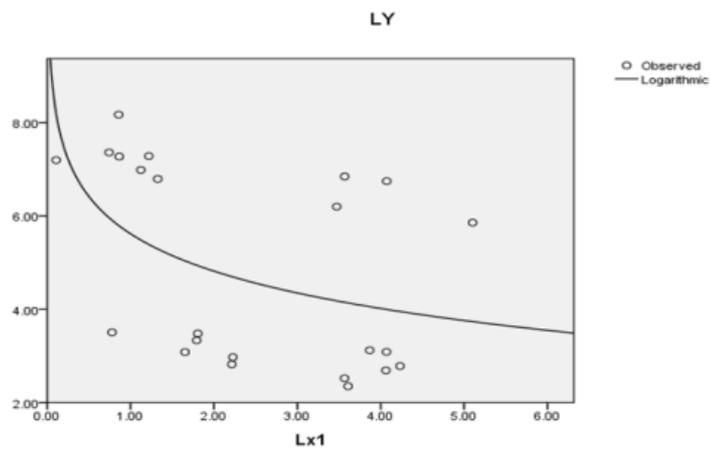


Figure 4

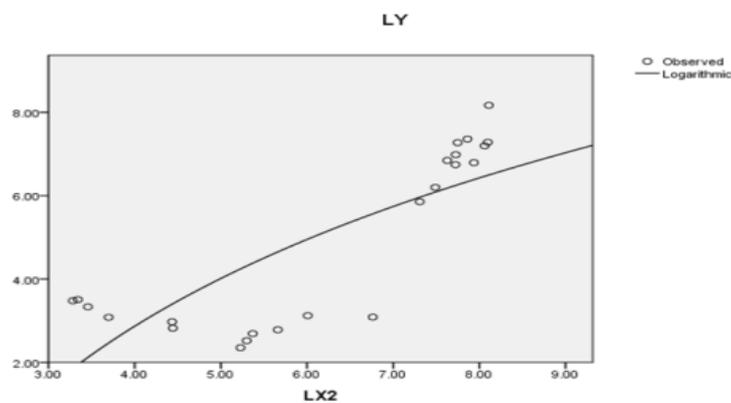


Figure 5

The Third Econometrics Model

Use the form half of the logarithmic according to the reasons mentioned above, where the economic function (a function of budget deficit to GDP and oil revenues) and for the period from (1991 to 2013) as follows:

$$\text{Log } I_y = 'B_0 + B_1 x_1 + B_2 x_2$$

$$\text{Log } I_y = 3.647 - 1.593x_1 + 7.103x_2$$

Where:

y= Budget Deficit

X1= Gross Domestic Production

X2= Oil Revenues

Through negative sign for (B1) shows that the inverse relationship between GDP and the budget deficit and positive signal for (B2) indicate that positive relationship between oil revenues and the budget deficit.

The Results of the Third Econometrics Model

Regression

Table 9

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	X2, X1 ^a	.	Enter
a. All requested variables entered.			
b. Dependent Variable: LY			

Table 10

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.896 ^a	.802	.782	.97832	1.049
a. Predictors: (Constant), X2, X1					
b. Dependent Variable: LY					

Table 11

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.596	2	38.798	40.536	.000 ^a
	Residual	19.142	20	.957		
	Total	96.738	22			
a. Predictors: (Constant), X2, X1						
b. Dependent Variable: LY						

Table 12

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.647	.295		12.366	.000
	X1	-1.593E-8	.000	-.632-	-1.451-	.162
	X2	7.103E-8	.000	1.500	3.440	.003
a. Dependent Variable: LY						

Table 13

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.8794	8.9067	4.8899	1.87805	23
Residual	-1.07065-	1.72940	.00000	.93280	23
Std. Predicted Value	-1.071-	2.139	.000	1.000	23
Std. Residual	-1.094-	1.768	.000	.953	23
a. Dependent Variable: LY					

LY

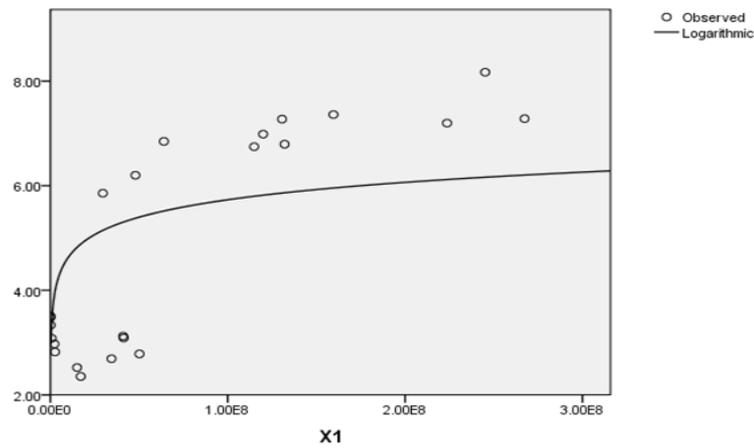


Figure 6

LY

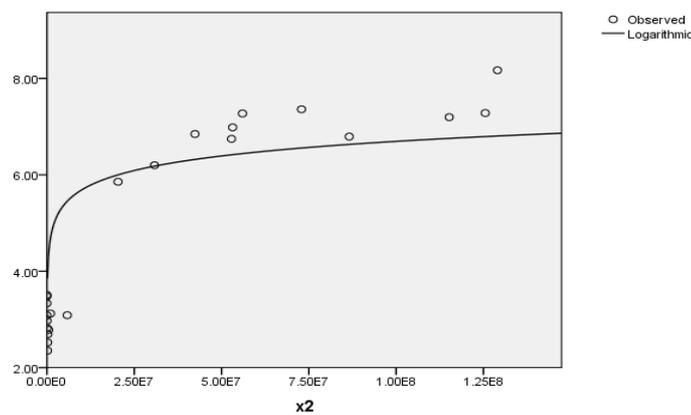


Figure 7

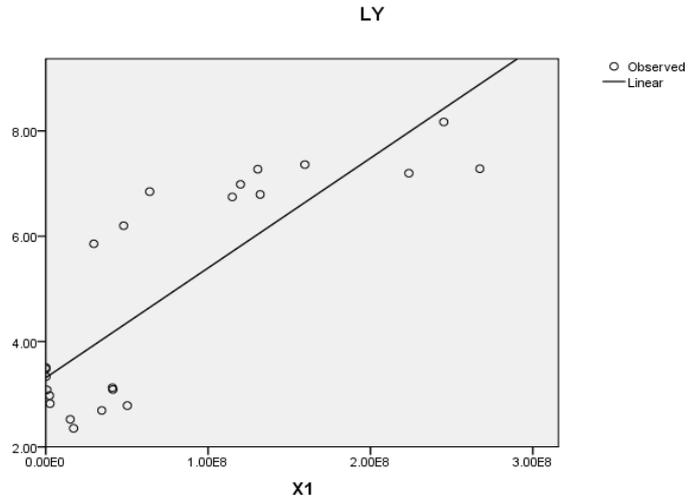


Figure 8

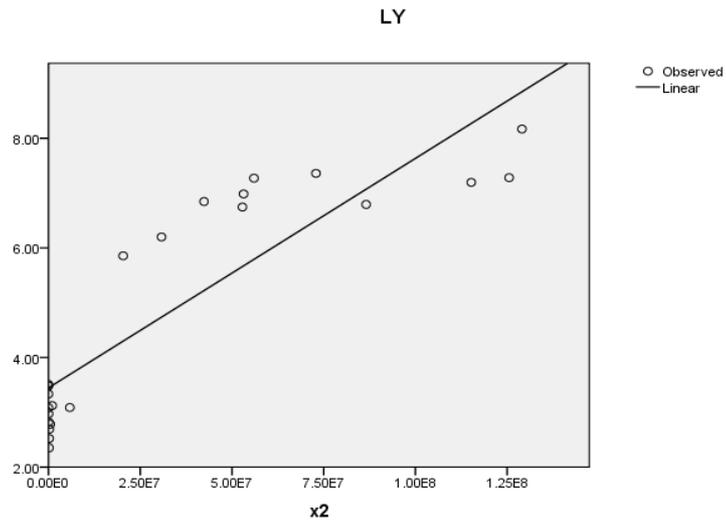


Figure 9

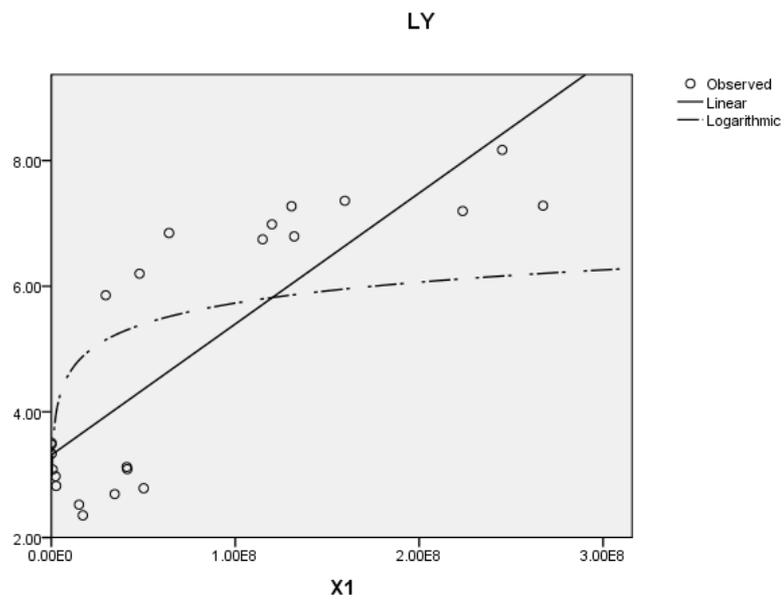


Figure 10

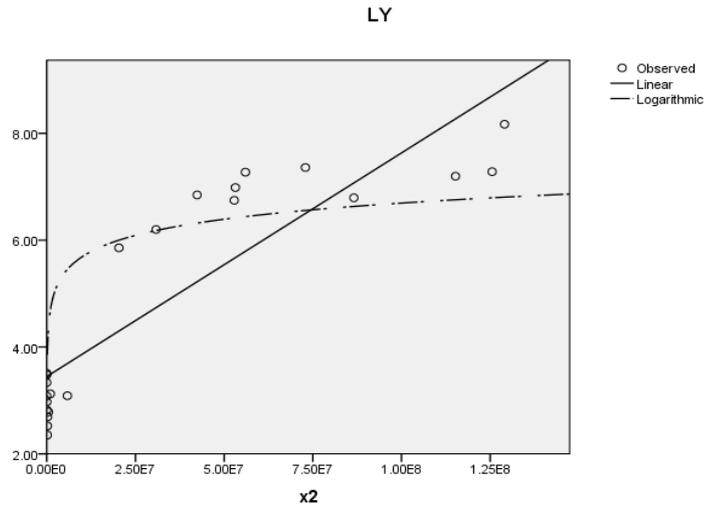


Figure 11

CONCLUSIONS

The study has got to important results of the following statements:

- Initial role oil revenues to impact directly a primary variable in Iraqi economic gross domestic, federal budget and trade balance.
- Keynesian point view is suppose there is relationship between budget deficit and trade balance. And refusing hypothesis of ricardian equivalence and alternative hypothesis of Kiwani
- According to what mention a above , require the following procedgers:
- It is very necessary to direct oil revenues to support economic variety through investment environment that help the growth of Iraqi economics
- discounting of expenditure the current budget and increasing expender of investment budget .which contribute actually to achieve the economic development
- Varity of public revenues non _oil .like taxation revenues .and create taxation system that is in Iraq active
- Adoption of policy to achieve extent growth base on democratic process and make wealth of natural resources be distributed on the society equally
- To achieve real economic changes .then should be real a national will fells in citizenship and work for the nation with conscientiously and faith fully for away from sectarianism and partisan and work only for the benefit of nation and society.

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