The Impact of Military Spending on Economic growth in Kuwait since 1995

Presented by

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Abstract

The standard studies on the relationship between military spending and economic growth have increased, The results of these standard studies have varied, There have been at least four results of the relationship between military expenditure and economic growth: a group of researchers have shown a positive causal relationship ranging from military spending to economic growth, and pointed out that defense expenditures directly stimulate economic growth by increasing purchasing power and aggregate demand, A second group of researchers also noted that there is a negative relationship between military expenditure and economic growth, and proved that military spending is detrimental to growth Because the funding of military spending will divert resources away from more productive government spending such as education and health services, Another group has shown that the causal relationship between military expenditure and economic growth is two-way, that military spending leads to increased economic growth and economic growth leads to higher military spending, And another group indicated military spending no effect on economic growth with long-term.

The results of the standard model used in this study showed that there is a negative correlation between military expenditure and economic growth in Kuwait, This study is consistent with the second group of researchers, which indicated that there is a negative impact of military spending on economic growth, (Expenditure: salaries, maintenance, etc.), and that the allocation of a large part of military expenditures to expenditures not used in the military industrialization process is considered to be effective in the process of economic growth (when calculating the

opportunity cost of such expenditures). the military expenditure in Kuwait will be Prompt for The importation of the external, which adversely affects the process of economic growth in them, because of the absence of military manufacturing, unlike the arms-producing countries, which have a positive relationship between the process of military spending and total production volume, which increases the front and backlinks of the military industrialization of other non-military industries, With many jobs and training being provided, driving the growth of these countries through indirect military spending. Nevertheless, these countries are trying to limit their military spending, because the positive effects of the opportunity cost of this spending are much greater this is what the post-Cold War countries have pursued. Some previous studies have pointed to a significant reduction in the military spending of developed countries beginning in 1990.

Key words: military spending, Kuwait, economic growth, Real GDP per capita, The real interest rate.

1-Introduction

Kuwait seeks to achieve security and stability through high levels of military spending, in light of turbulent regional conditions surrounding it as one of the Arab Gulf states. The surrounding risks and external threats, and thus the military spending process has become an important issue, as there is an opportunity cost. This spending could have been directed to other economic activities that accelerate the pace of economic growth and keep its rates stable .

Achieving security and stability by increasing military spending has a positive effect on the process of economic growth, which encourages and attracts investments that in turn enhance the process of economic growth. On the other hand, the process of military spending is marred by some influences that negatively affect the process of economic growth, represented in Pressures from Countries supplying weapons in concluding these deals, which makes the process of allocating funds for military spending can be exaggerated, given the surrounding circumstances of external threats to the State of Kuwait, which affects other allocations to the state budget, and thus military spending becomes an obstacle to economic growth .

The effect of military spending on economic growth has become an important issue for academics and public policymakers. Research on this topic, both theoretically and empirically, did not stop over the last thirty years. In theory, many researchers have tried to identify the channels through which military spending affects the rate Economic growth, by focusing on the effects of total supply and demand, and the methodology used in this field varied, and the econometric models used included :

1- Cross-section analyzes for a group of countries versus time series analysis for one country, and models with single equations .

2- Simultaneous equation models, using large samples or dividing the sample according to economic and non-economic structural features, and testing whether there is a cause for military spending**.**

2-Lecture review:

Biswas and Ram (1986)The aim of the study was to measure the impact of military spending on economic growth, and the equation of linear regression analysis was used through neoclassical theoretical explanations of the relationship between military spending and economic growth, and Biswas and Ram were able to develop Feeder's model (1983-1986) Which measures the impact of exports on growth in developing countries, to measure the relationship between military spending and economic growth, and there are many of the following studies used the same Feder's model to measure the relationship between military spending and economic growth, after developing it to fit the measurement of that relationship, and they indicated the existence of a causal relationship between The two variables, Deger and Sen (1995), this study aims to measure the impact of military spending on economic growth, and the model used focuses on providing an interpretation of military spending as an independent variable in the equation of a linear regression analysis through neoclassical theoretical explanations of the relationship between military spending and economic growth. Military expenditures divert resources from use in economic and social activities and other non-military activities to military activities, thus having direct opportunity costs in terms of investment and consumption, as well as some costs in the balance of payments, because the purchase of

weapons requires a large amount of import, but When aggregate demand is below the potential of supply, military expenditures will increase the employment of workers, Mintz)1995(Stevenson, this study aims to measure the direct impact of military spending and its repercussions in more than a hundred countries, and used cross-section analyzes for a group of countries, and the researchers concluded that in most of these countries (92 out of 103), it was not Military expenditures have a great impact on economic growth, and the level of development in the country is an important factor in determining the relationship between military spending and other macroeconomic variables. In developing countries, military spending can be directed to exploit productive capacities that are not used appropriately and create effective demand for factories that have not been employed. The capital appropriately and military spending can contribute to the local development of leadership capabilities and the management of institutions, as well as the development of the scientific and technical research sector, and the initiation of defining a mechanism for the redistribution of income, as they indicated that there is no significant relationship between military spending and economic growth in the short term. Wilkins (2004), this study aims to test the relationship between military spending and economic growth in 85 countries during the period from 1988 to 2002 and used cross section analyzes for a group of countries, and concluded that the average military spending decreased from 4.78% in a year. 1988 to 2.95% in 2001, as a result of the end of the Cold War and the arms race, Halicioglu (2004), this study is concerned with studying the relationship between economic growth and military spending in Turkey for the period from 1950-2002 and the use of a multiple regression model

where it expressed GDP as an independent variable, and consumption, investment, exports, non-military government spending and government military spending as independent variables in this Model, this study indicates a positive relationship between military spending and total production in Turkey in the long run, Shahbaz and Tiwari (2011), this study aims to measure the impact of military spending on economic growth in India between 1971-2010, and used a linear regression model that includes the following variables: average per capita GDP as a dependent variable, military spending and investment and the rate Interest as independent variables, and they studied the effect of military spending on economic growth using an upgraded version of the Keynesian model for the Indian economy during the period from 1971-2010, and they found that there is a small positive effect of military spending on economic growth. If military spending exceeds this limit, there is a negative effect. Ali economic growth, and the study also showed a two-way causal relationship between military spending and economic growth, Arif and Rashid (2012), they studied the relationship between military spending and economic growth in 14 developing countries for the period 1981-2006, and used a crosssection analysis model for a group of countries. The results of the study indicate that military spending affects economic growth in these countries. Countries Danek (2013), this study aims to determine the relationship between military spending and gross domestic product in the Czech Republic between 1975-2001, and regression analysis between economic growth as a dependent variable and military spending as an independent variable, the results confirmed that military expenditures explain 46% of Changes in GDP, and the correlation coefficient showed a

negative relationship between military spending and GDP, bearing in mind that these results were over a short period of time, due to the difficulty of measuring over a large time scale due to the presence of many deviations, Olumuyiwa and Olalekan)2014(, the study focused on the impact of military spending on economic growth, both in the short term and in the long run in Nigeria from 1989 to 2013, and the co-integration test and the causation test were used to find the relationship between both GDP and spending. Al-Askari, the results showed that military spending has a negative effect on economic growth in the short term, and a slight positive effect in the long term, and the study showed that spending on labor and capital has a positive effect on growth, whether in the short or long term, so the government must It reduces its military spending, and increases spending on human capital development and capital accumulation, Dr.Howyda Abd AazimZidan) 2015 (, this study is concerned with studying the relationship between economic growth and military spending.

3-Modeling

This study relies on the use of long data series for the State of Kuwait from 1990 to 2017, in measuring the relationship between military spending and economic growth, and public spending was divided into military and nonmilitary spending, and both of them were used as an independent variable in the study so that it can be measured The effect of military spending without the effect of non-military spending in the absence of it as an independent variable in the study. Economic growth was also expressed using an average per capita GDP .

The study model was built on the foundations of economic theory, which indicates that the gross domestic product is equal to the sum of family

spending + investment + government spending (military - non-military), and thus there has become an accurate theoretical explanation and a basis compatible with economic theory in choosing the model used for this study, and formulating the model used In this study, the following equation is based, according to economic theory:

$$GDP = a + b\ RME + b1\ RGE - b2\ R + UI$$

GDP = Real GDP per capita (constant prices of U.S. dollars)

RME = Military spending in Kuwait (constant prices of U.S. dollars)

RGE = Public spending without military spending in Kuwait (constant prices of US dollars)

R = The real interest rate a،b ،b1 ،b2 =Regression parameters .

UI= Random variables

The Eviews8 statistical program was used to estimate and select the appropriate model .

By looking at the following table, we find that the data of the dependent variable GDP, the independent variable R and the independent variable RME and RGE are sourced from the World Bank.

(Table No1)

Description of data for the study variables and their source (19952016):

Variable	Data resource	definition	Variable name
independed	World bank	Real GDP per capita	GDP
Depended	World bank	Military spending	RME
Depended	World bank	Public spending without military spending	RGE
Depended	World bank	The real rate of interest	R

Data (Table 1 Statistica Appendix)

4-Unit root test:

The static condition is considered a prerequisite for studying time series analysis to reach sound and logical results, and the time series is considered static, if the following conditions are met: the stability of the arithmetic mean of the values over time, the stability of the variance over time, and we will test the stativity of the time series through the Extended Ducky Fuller test using Eviews8 it is evident from Table 1 that all the time series for the study variables were non-static at the level except for the time series for the variable R. They were static at this level. Therefore, first-order differences were required on all other time series. The results indicated the stability and staticness of the RGE variable. After making the first-degree differences, so second-degree differences were required to be made on all other time series, so the results indicated the stability and statics of the rest of the variables, and this means that all-time series is stable, which gives a good indication of the progress in the model estimation procedure

(Table2) Unit root test

$Level_2$		$Level_1$		level		variable
Prob	t-statistic	Prob	t-statistic	Prob	t-statistic	
0.0061	4.069868-	0.2127	2.198471-	0.1282	2.509026-	GDP
				0.0066	3.976480-	R
		0.0005	5.248432-	0.9787	0.416715	RGE
0.0000	6.855221-	0.0210	3.453567-	0.1361	2.471230-	RME

Data source: From Table No. 2 to Table No. 10 (appendix).

5-Cointegration test

The Johansson co-integration test will be performed using Eviews8 software, to ensure that there is a long-term complementary relationship between the time series of the study variables .

Table (3)Johansson cointegration test results

Likelihood Ratio Sig level = 0.05	Critical value	
9 ,57	47,8	None*
21,3	29,7	At most 1*

Data source: Table No. 11 in the statistical appendix

The results of the Johansson test for co-integration indicate, by rejecting the initial hypothesis that there is no co-integration between the time series of the variables of the study, and accepting the second hypothesis with the existence of a single integration vector at most, as the Likelihood Ratio value reached 21.3, while the Critical value reached 29.7 At the level of significance 0.05%, which is greater than the value of the calculated likelihood rate, and thus the Johansson test for cointegration stops at this hypothesis, and the conclusion is made that there is a vector of co-integration between the time series at most and at the level of significance of 5%, and this is an indication of proceeding with the estimation of the model .

6-Estimating model parameters and results of checking its quality

Using the method of least squares (ols) to estimate the parameters of the standard model used, through Eviews8, the results were as follows :

GDP = 94541,43 - 2.05 * RME - 1,00 * RGE - 135.53 * R

The results of estimating the multiple regression model for the time series variables being studied indicate that the coefficient of determination has a value of 0.22, which means that the independent variables explain 22% of the variance in the dependent variable .

The results show that there is a negative relationship between military spending and economic growth in Kuwait, as the increase in military spending affects the average per capita GDP in Kuwait (meaning that an increase in military spending by one unit leads to a decrease in the average per capita GDP by 2 05 units).

There is also a negative relationship between non-military spending and economic growth in Kuwait, as the increase in non-military spending leads to a decrease in the average per capita GDP (meaning that an increase in nonmilitary spending by one unit leads to a decrease an average per capita GDP by 1, 00 one unit).

There is a negative relationship between the real interest rate and economic growth in Kuwait. An increase in the real interest rate leads to a decrease in the average per capita share of GDP (meaning that an increase in the real interest rate by one unit leads to a decrease in the average per capita share of GDP by an amount. 135,53 units)

7-Results of assessed model quality checks

In light of the adoption of the estimation of the standard model for the study on the regular least squares method, there are some necessary tests to ensure the validity and quality of the estimated model, to rely on the evaluation results, namely :

Test of the normal distribution condition for the residuals of the estimated model :

Using the Jarque-Bera test, the test value was (J = 0.94) with a probability of reaching (0,623p-value =), and this result indicates acceptance of the null hypothesis that assumes that random errors (residuals of the estimated model) follow the normal distribution because the test value is less than the tabular value of 5.99 at a degree of freedom of 5% .

Test for the absence of linear duplication condition :

Using the value of variance inflation factors (VIF), it was found that all the values of the inflation factors for the study variables range between (1 and 3.7), which indicates that there is no severe problem of linear duplication in this model (where the values of the inflation factor are seen when Its value exceeds 5 in the presence of a linear pairing problem in the variables of the estimated model).

The previous results of the statistical tests on the study model confirm the quality of the estimated model and its safety from any standard defect, and thus its results can be relied upon in proportion to the economic reality.

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(table)1

R	RGE	RME	GDP	year
3.35	27,389,990,510.31	9,072,368,362.60	81,017.12	1995
-5.84	23,003,202,509.09	6,916,997,067.41	80,453.96	1996
14.19	24,507,896,952.17	5,568,786,595.72	78,427.00	1997
31.48	30,847,377,243.23	6,279,628,529.98	75,940.40	1998
-8.06	26,171,790,279.93	5,321,520,898.29	69,981.56	1999
-9.67	21,586,398,010.72	5,248,573,654.25	69,920.18	2000
17.50	26,052,895,631.30	5,691,513,138.09	68,472.83	2001
1.26	26,246,792,870.25	5,634,403,526.41	69,392.77	2002
0.47	27,228,272,996.39	5,842,681,395.04	80,462.60	2003
-4.70	28,101,931,939.84	5,744,110,026.60	87,555.16	2004
-12.14	25,902,916,911.23	4,731,342,472.22	93,469.54	2005
-6.54	33,229,899,342.82	4,149,266,225.80	96,244.34	2006
4.05	32,883,615,940.78	4,457,067,842.38	96,870.43	2007
-9.31	47,567,878,777.10	3,824,311,031.69	93,698.46	2008
28.24	45,179,183,222.15	4,695,363,322.06	81,922.54	2009
-5.17	47,304,605,722.26	4,335,310,537.33	75,204.15	2010
-10.27	44,989,978,380.81	4,430,391,506.72	77,459.54	2011
-2.33	47,760,731,955.67	4,605,704,362.90	77,618.00	2012
4.33	47,591,792,960.55	4,464,547,482.25	74,084.52	2013
11.83	55,815,405,873.23	4,917,753,175.56	70,832.37	2014
40.86	68,464,913,476.86	6,940,582,369.63	68,476.33	2015
11.30	67,558,061,691.81	8,344,290,212.92	68,861.79	2016

Table 2 (Dickey-Fuller test statistic)

	Null Hypothesis: GDP has a unit root			
		Exogenous: Constant		
Lag Length: 1 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.1282	-2.509026	Augmented Dickey-Fuller test statistic		
	-3.808546		1% level	Test critical values:
	-3.020686		5% level	
	-2.650413		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(GDP)		
		Method: Least Squares		
		Date: 06/23/19 Time: 10:25		
		Sample (adjusted): 1997 2016		
	Included observations: 20 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0225	-2.509026	0.095419	-0.239410	GDP(-1)
0.0009	4.033631	0.179898	0.725643	D(GDP(-1))
0.0246	2.465221	7653.038	18866.43	C
-579.6084	Mean dependent var		0.511567	R-squared
5055.931	S.D. dependent var		0.454105	Adjusted R-squared
19.42666	Akaike info criterion		3735.560	S.E. of regression
19.57602	Schwarz criterion		2.37E+08	Sum squared resid
19.45582	Hannan-Quinn criter.		-191.2666	Log likelihood
2.013811	Durbin-Watson stat		8.902606	F-statistic
			0.002264	Prob(F-statistic)

Eviews8

Table 3

)Dickey-Fuller test statistic(

	Null Hypothesis: D(GDP) has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.2127	-2.198471	Augmented Dickey-Fuller test statistic		
	-3.808546		1% level	Test critical values:
	-3.020686		5% level	
	-2.650413		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(GDP,2)		
		Method: Least Squares		
		Date: 06/23/19 Time: 10:26		
		Sample (adjusted): 1997 2016		
	Included observations: 20 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0412	-2.198471	0.193024	-0.424358	D(GDP(-1))
0.8220	-0.228262	957.9270	-218.6579	C
47.43158	Mean dependent var		0.211677	R-squared
4658.651	S.D. dependent var		0.167881	Adjusted R-squared
19.64170	Akaike info criterion		4249.647	S.E. of regression
19.74127	Schwarz criterion		3.25E+08	Sum squared resid
19.66114	Hannan-Quinn criter.		-194.4170	Log likelihood
1.666178	Durbin-Watson stat		4.833275	F-statistic
			0.041234	Prob(F-statistic)

Table 4

)Dickey-Fuller test statistic(

	Null Hypothesis: D(GDP,2) has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.0061	-4.069868	Augmented Dickey-Fuller test statistic		
	-3.831511		1% level	Test critical values:
	-3.029970		5% level	
	-2.655194		10% level	

	*MacKinnon (1 996) one-sided p-values .			
Warning: Probabilities and critical values calculated for 20 observations				
and may not be accurate for a sample size of 19				
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(GDP,3)		
		Method: Least Squares		
		Date: 06/23/19 Time: 10:31		
		Sample (adjusted): 1998 2016		
	Included observations: 19 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable

0.0008	-4.069868	0.244094	-0.993431	D(GDP(-1),2)
0.9112	0.113232	1126.802	127.5899	C
221.3321	Mean dependent var		0.493502	R-squared
6705.529	S.D. dependent var		0.463708	Adjusted R-squared
19.93548	Akaike info criterion		4910.589	S.E. of regression
20.03489	Schwarz criterion		4.10E+08	Sum squared resid
19.95230	Hannan-Quinn criter.		-187.3870	Log likelihood
1.983495	Durbin-Watson stat		16.56382	F-statistic
			0.000797	Prob(F-statistic)

Table 5
)Dickey-Fuller test statistic(

	Null Hypothesis: R has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.0066	-3.976480	Augmented Dickey-Fuller test statistic		
	-3.788030		1% level	Test critical values:
	-3.012363		5% level	
	-2.646119		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(R)		
		Method: Least Squares		
		Date: 06/23/19 Time: 10:33		

		Sample (adjusted): 1996 2016		
	Included observations: 21 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0008	-3.976480	0.229864	-0.914049	R(-1)
0.2615	1.157261	3.468766	4.014269	C
0.378521	Mean dependent var		0.454217	R-squared
20.23020	S.D. dependent var		0.425492	Adjusted R-squared
8.388382	Akaike info criterion		15.33375	S.E. of regression
8.487860	Schwarz criterion		4467.352	Sum squared resid
8.409971	Hannan-Quinn criter.		-86.07801	Log likelihood
1.948259	Durbin-Watson stat		15.81239	F-statistic
			0.000808	Prob(F-statistic)

Table 6)Dickey-Fuller test statistic(

Null Hypothesis: RGE has a unit root

	Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.9787	0.416715	Augmented Dickey -Fuller test statistic		
	-3.788030		1% level	Test critical values:
	-3.012363		5% level	
	-2.646119		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(RGE)		
		Method: Least Squares		

		Date: 06/23/19 Time: 10:38		
		Sample (adjusted): 1996 2016		
	Included observations: 21 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.6816	0.416715	0.095303	0.039714	RGE(-1)
0.8966	0.131722	3.64E+09	4.80E+08	C
1.91E+09	Mean dependent var		0.009057	R-squared
5.36E+09	S.D. dependent var		-0.043098	Adjusted R-squared
47.77647	Akaike info criterion		5.48E+09	S.E. of regression
47.87595	Schwarz criterion		5.70E+20	Sum squared resid
47.79806	Hannan-Quinn criter.		-499.6529	Log likelihood
2.382562	Durbin-Watson stat		0.173651	F-statistic
			0.681557	Prob(F-statistic)

Table 7

(Dickey-Fuller test statistic)

	Null Hypothesis: D(RGE) has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.0005	-5.248432	Augmented Dickey-Fuller test statistic		
	-3.808546		1% level	Test critical values:
	-3.020686		5% level	
	-2.650413		10% level	
	*MacKinnon (1996) one-sided p-values.			

	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(RGE,2)		
		Method: Least Squares		
		Date: 06/23/19 Time: 10:42		
		Sample (adjusted): 1997 2016		
	Included observations: 20 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0001	-5.248432	0.224727	-1.179464	D(RGE(-1))
0.0580	2.024248	1.28E+09	2.60E+09	C
1.74E+08	Mean dependent var		0.604795	R-squared
8.29E+09	S.D. dependent var		0.582840	Adjusted R-squared
47.73390	Akaike info criterion		5.35E+09	S.E. of regression
47.83348	Schwarz criterion		5.16E+20	Sum squared resid
47.75334	Hannan-Quinn criter.		-475.3390	Log likelihood
2.030720	Durbin-Watson stat		27.54604	F-statistic
			0.000054	Prob(F-statistic)

Table 8

(Dickey-Fuller test statistic)

	Null Hypothesis: RME has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.1361	-2.471230	Augmented Dickey-Fuller test statistic		
	-3.788030		1% level	Test critical values:
	-3.012363		5% level	
	-2.646119		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(RME)		
		Method: Least Squares		
		Date: 06/23/19 Time: 11:08		
		Sample (adjusted): 1996 2016		
	Included observations: 21 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0231	-2.471230	0.15334 2	-0.378944	RME(-1)
0.0284	2.372873	8.44E+08	2.00E+09	C

-346703 88	Mean dep endent var		0.243238	R-squared
9.27E+08	S.D. dependent var		0.203409	Adjusted R-squared
43.99625	Akaike info criterion		8.28E+08	S.E. of regression
44.09573	Schwarz criterion		1.30E+19	Sum squared resid
44.01784	Hannan-Quinn criter.		-459.9606	Log likelihood
1.003421	Durbin-Watson stat		6.106979	F-statistic
			0.023097	Prob(F-statistic)

Table 9
(Dickey-Fuller test statistic)

	Null Hypothesis: D(RME) has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			
0.0210	-3.453567	Augmented Dickey-Fuller test statistic		
	-3.808546		1% level	Test critical values:
	-3.020686		5% level	
	-2.650413		10% level	
	*MacKinnon (1996) one-sided p-values.			
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(RME,2)		

		Method: Least Squares		
		Date: 06/23/19 Time: 11:13		
		Sample (adjusted): 1997 2016		
	Included observations: 20 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0028	-3.453567	0.202836	-0.700508	D(RME(-1))
0.5670	0.583164	1.77E+08	1.03E+08	C
1.78E+08	Mean dependent var		0.398539	R-squared
9.87E+08	S.D. dependent var		0.365124	Adjusted R-squared
43.89786	Akaike info criterion		7.86E+08	S.E. of regression
43.99743	Schwarz criterion		1.11E+19	Sum squared resid
43.91730	Hannan-Quinn criter.		-436.9786	Log likelihood
2.236195	Durbin-Watson stat		11.92713	F-statistic
			0.002834	Prob(F-statistic)

table 10
(Dickey-Fuller test statistic)

	Null Hypothesis: D(RME,2) has a unit root			
		Exogenous: Constant		
Lag Length: 0 (Automatic - based on SIC, maxlag=4)				
Prob.*	t-Statistic			

0.0000	-6.855221	Augmented Dickey-Fuller test statistic		
	-3.831511		1% level	Test critical values:
	-3.029970		5% level	
	-2.655194		10% level	
	*MacKinnon (19 96) one-sided p-values.			
Warning: Probabilities and critical values calculated for 20 observations				
and may not be accurate for a sample size of 19				
	Augmented Dickey-Fuller Test Equation			
		Dependent Variable: D(RME,3)		
		Method: Least Squares		
		Date: 06/23/19 Time: 11:20		
		Sample (adjusted): 1998 2016		
	Included observations: 19 after adjustments			
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-6.855221	0.215272	-1.475735	D(RME(-1),2)
0.2595	1.166599	2.14E+08	2.49E+08	C
-75067483	Mean dependent var		0.734350	R-squared
1.71E+09	S.D. dependent var		0.718724	Adjusted R-squared
44.19275	Akaike info criterion		9.09E+08	S.E. of regression
44.29217	Schwarz criterion		1.40E+19	Sum squared resid
44.20958	Hannan-Quinn criter.		-417.8311	Log likelihood
2.097855	Durbin-Watson stat		46.99405	F-statistic
			0.000003	Prob(F-statistic)

Table 11

		Date: 06/26/19 Time: 12:30
		Sample (adjusted): 1997 2016
	Included observations: 20 after adjustments	
	Trend assumption: Linear deterministic trend	
		Series: GDP RME RGE R
	Lags interval (in first differences): 1 to 1	

	Unrestricted Cointegration Rank Test (Trace)			
	0.05	Trace		Hypothesized
Prob.**	Critical Value	Statistic	Eigenvalue	No. of CE(s)
0.0043	47.85613	57.92497	0.839737	None *
0.3388	29.79707	21.30625	0.492875	At most 1
0.4951	15.49471	7.726295	0.320439	At most 2
0.9924	3.841466	0.000128	6.41E-06	At most 3
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
	**MacKinnon-Haug-Michelis (1999) p-values			
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
	0.05	Max-Eigen		Hypothesized
Prob.**	Critical Value	Statistic	Eigenvalue	No. of CE(s)
0.0027	27.58434	36.61872	0.839737	None *
0.4004	21.13162	13.57996	0.492875	At most 1
0.4072	14.26460	7.726166	0.320439	At most 2
0.9924	3.841466	0.000128	6.41E-06	At most 3
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
	**MacKinnon-Haug-Michelis (1999) p-values			
Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):				
	R	RGE	RME	GDP
	0.205190	7.90E-13	-8.66E-10	5.76E-05

	-0.126210	-3.21E-11	1.44E-09	0.000143
	-0.065528	-6.74E-11	1.28E-09	-8.28E-06
	0.032236	-1.08E-10	-1.31E-09	-4.23E-05
	Unrestricted Adjustment Coefficients (alpha):			
4.910767	964.3233	-1420.430	715.0218	D(GDP)
35498.91	-1.52E+08	-3.56E+08	-2.42E+08	D(RME)
5093392.	-2.38E+09	-5.22E+08	-2.21E+08	D(RGE)
0.001840	-4.111980	-2.618934	-11.05571	D(R)
	-1143.655	Log likelihood	1 Cointegrating Equation(s):	
Normalized cointegrating coefficients (standard error in parentheses)				
	R	RGE	RME	GDP
	3564.457	1.37E-08	-1.50E-05	1.000000
	(502.576)	(2.7E-07)	(4.4E-06)	

	Adjustment coefficients (standard error in parentheses)			
			0.041161	D(GDP)
			(0.05069)	
			-13951.13	D(RME)
			(8976.85)	
			-12720.92	D(RGE)
			(72659.1)	
			-0.000636	D(R)
			(0.00015)	
	-1136.865	Log likelihood	2 Cointegrating Equation(s):	
Normalized cointegrating coefficients (standard error in parentheses)				
	R	RGE	RME	GDP
	900.7264	-1.29E-07	0.000000	1.000000
	(203.041)	(1.8E-07)		
	-1.77E+08	-0.009467	1.000000	0.000000
	(1.6E+07)	(0.01449)		
	Adjustment coefficients (standard error in parentheses)			

		-2.67E-06	-0.162594	D(GDP)
		(1.3E-06)	(0.12281)	
		-0.303244	-64982.40	D(RME)
		(0.20793)	(19104.7)	
		-0.562035	-87650.93	D(RGE)
		(2.11025)	(193895.)	
		5.80E-09	-0.001012	D(R)
		(4.1E-09)	(0.00038)	
	-1133.002	Log likelihood	3 Cointegrating Equation(s):	
Normalized cointegrating coefficients (standard error in parentheses)				
	R	RGE	RME	GDP
	515.7353	0.000000	0.000000	1.000000
	(235.980)			
	-2.05E+08	0.000000	1.000000	0.000000
	(2.1E+07)			
	-2.99E+09	1.000000	0.000000	0.000000
	(1.0E+09)			
	Adjustment coefficients (standard error in parentheses)			
	-1.88E-08	-1.43E-06	-0.170580	D(GDP)
	(5.6E-08)	(1.6E-06)	(0.11633)	
	0.021486	-0.497961	-63722.30	D(RME)
	(0.00871)	(0.24670)	(18066.8)	
	0.177041	-3.608964	-67933.01	D(RGE)
	(0.08069)	(2.28488)	(167332.)	
	3.52E-10	5.34E-10	-0.000978	D(R)
	(1.6E-10)	(4.6E-09)	(0.00034)	

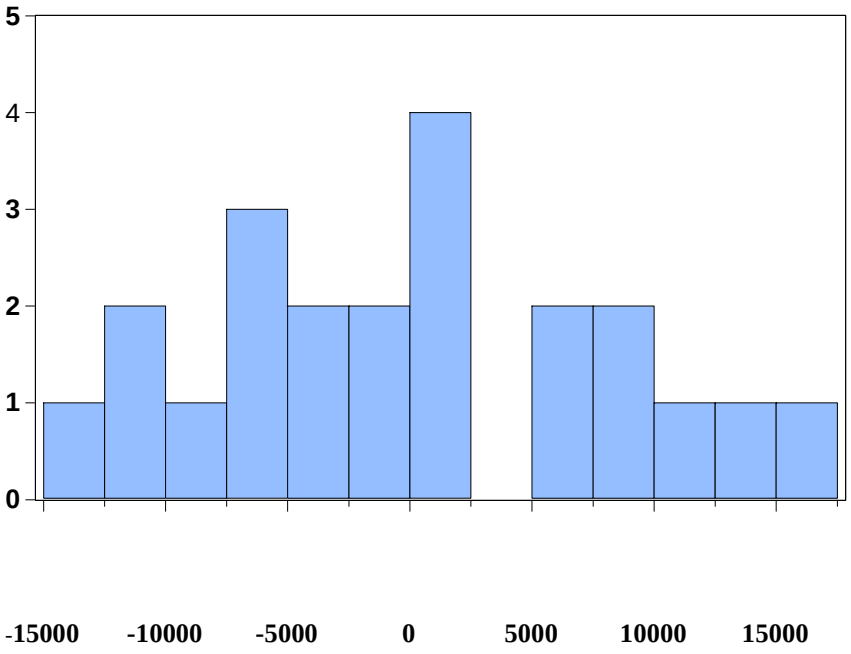
Table 12

		Dependent Variable: GDP		
		Method: Least Squares		
		Date: 06/24/19 Time: 12:41		
		Sample: 1995 2016		
		Included observations: 22		
Prob.	t-Statistic	Std. Error	Coefficient	Variable

0.0000	8.874935	10652.63	94541.43	C
0.2048	-1.315661	1.55E-06	-2.05E-06	RME
0.5100	-0.672125	1.49E-07	-1.00E-07	RGE
0.3911	-0.878839	154.2194	-135.5340	R
78925.71	Mean dependent var		0.224439	R-squared
9339.481	S.D. dependent var		0.095179	Adjusted R-squared
21.18484	Akaike info criterion		8883.908	S.E. of regression
21.38321	Schwarz criterion		1.42E+09	Sum squared resid
21.23157	Hannan-Quinn criter.		-229.0332	Log likelihood
0.495036	Durbin-Watson stat		1.736337	F-statistic
			0.195412	Prob(F-statistic)

Table 13

Jarque-Bera



Series: Residuals	
Sample 1995 2016	
Observations 22	
Mean	1.04e-11
Median	114.2456
Maximum	15292.21
Minimum	-13033.28
Std. Dev.	8224.901
Skewness	0.146050
Kurtosis	2.027485
Jarque-Bera	0.945182
Probability	0.623385

Eviews8

Table 14

	LM Breusch-Godfrey Serial Correlation LM Test:			
0.0008	Prob. F(2,16)		11.53174	F-statistic
0.0015	Prob. Chi-Square(2)		12.98903	Obs*R-squared
			Test Equation:	
		Dependent Variable: RESID		
		Method: Least Squares		
		Date: 06/29/19 Time: 11:30		
		Sample: 1995 2016		
		Included observations: 22		
Presample missing value lagged residuals set to zero.				
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.8404	-0.204625	7737.868	-1583.360	C
0.6541	0.456601	1.17E-06	5.34E-07	RME
0.6611	-0.446681	1.02E-07	-4.55E-08	RGE
0.4832	0.717799	107.5304	77.18520	R
0.0013	3.881212	0.240828	0.934705	RESID(-1)
0.4011	-0.862612	0.255021	-0.219984	RESID(-2)
1.04E-11	Mean dependent var		0.590410	R-squared
8224.901	S.D. dependent var		0.462413	Adjusted R-squared
20.47406	Akaike info criterion		6030.521	S.E. of regression
20.77161	Schwarz criterion		5.82E+08	Sum squared resid
20.54415	Hannan-Quinn criter.		-219.2146	Log likelihood
1.729952	Durbin-Watson stat		4.612696	F-statistic
			0.008506	Prob(F-statistic)

Table 15

	Variance Inflation Factors		
	Date: 06/29/19 Time: 12:53		
	Sample: 1995 2016		
	Included observations: 22		
Centered	Uncentered	Coefficient	
VIF	VIF	Variance	Variable
NA	31.63214	1.13E+08	C
1.149342	21.59643	2.42E-12	RME
1.199381	9.938365	2.23E-14	RGE
1.356427	1.479617	23783.62	R

ملخص:

تزايدت الدراسات القياسية بشأن العلاقة بين الإنفاق العسكري والنمو الاقتصادي، وجاءت نتائج هذه الدراسات القياسية متفاوتة، بحيث كان هناك ما لا يقل عن أربع نتائج للعلاقة بين الإنفاق العسكري والنمو الاقتصادي : أثبتت مجموعة من الباحثين بأن هناك علاقة سببية إيجابية تمتد من الإنفاق العسكري نحو النمو الاقتصادي، وأشاروا بأن نفقات الدفاع تحفز بصورة مباشرة النمو الاقتصادي عن طريق زيادة القوة الشرائية والطلب الكلي، كما أشارت مجموعة ثانية من الباحثين بأن هناك علاقة سلبية بين الإنفاق العسكري والنمو الاقتصادي، وأثبتت بأن الإنفاق العسكري يضر بالنمو الاقتصادي، لأن تمويل الإنفاق العسكري سيحول الموارد بعيدا عن الإنفاق الحكومي الأكثر إنتاجية مثل التعليم والخدمات الصحية، وأثبتت مجموعة أخري بأن العلاقة السببية بين الإنفاق العسكري والنمو الاقتصادي ذات اتجاهين، أي أن الإنفاق العسكري يؤدي إلى زيادة النمو الاقتصادي، والنمو الاقتصادي يؤدي إلى ارتفاع الإنفاق العسكري، وأشارت مجموعة أخري بأن الإنفاق العسكري ليس له أي علاقة تذكر بالنمو الاقتصادي علي المدي الطويل.

أثبتت نتائج النموذج القياسي المستخدم في هذه الدراسة، وجود علاقة سلبية بين الإنفاق العسكري والنمو الاقتصادي في الكويت ، أي أن هذه الدراسة تتوافق مع المجموعة الثانية من الباحثين والتي أشارت إلي وجود اثر سلبي للإنفاق العسكري علي النمو الاقتصادي، وهذا يؤكد بأن الإنفاق العسكري في الكويت هو إنفاق استهلاكي (مصروفات دورية: رواتب، صيانة، أخرى) ، وأن تخصيص جزء كبير من النفقات العسكرية في مصروفات لا تستخدم في عملية التصنيع العسكري، تعتبر مؤثرة في عملية النمو الاقتصادي (عند حساب تكلفة الفرصة البديلة لهذه النفقات)، فالإنفاق العسكري في الكويت يكون موجه للاستيراد الخارجي مما يؤثر بالسلب علي عملية النمو الاقتصادي فيها، وذلك لعدم وجود تصنيع عسكري، علي خلاف الدول المنتجة للسلاح، والتي يوجد بها علاقة إيجابية بين عملية الإنفاق العسكري وحجم الإنتاج الكلي، مما يزيد من الروابط الأمامية والخلفية لعملية التصنيع العسكري بالصناعات الأخرى غير العسكرية، مع توفير الكثير من فرص العمل والتدريب، مما يدفع عملية النمو في هذه الدول من جراء الإنفاق العسكري بطرق غير مباشرة، وعلي الرغم من ذلك تحاول هذه الدول الحد من الإنفاق العسكري لديها، لأن الأثار الإيجابية المحققة من تكلفة الفرصة البديلة لهذا الإنفاق أكبر بكثير من الأثار الإيجابية للإنفاق العسكري، وهذا ما انتهجته هذه الدول بعد انتهاء الحرب الباردة، وأشارت إليه بعض الدراسات السابقة من ملاحظة خفض شديد في الإنفاق العسكري للدول المتقدمة بداية من عام 1990 .

الكلمات المفتاحية: الإنفاق العسكري ، الكويت ، النمو الاقتصادي ، الناتج المحلي الإجمالي الحقيقي للفرد ، سعر الفائدة الحقيقي.