

Is Gross Capital Formation And Gross Savings A Component In Saudi Arabia's Economic Growth?

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Abstract

Gross Capital Formation and Gross Savings are important drivers of a country's Gross Domestic Product growth. Gross Capital Formation is the sum of gross additions to fixed assets and stock change whereas Gross Savings are excess of Disposable Income over consumption of the Nation. Savings promotes investments and which directly accelerates the investments. The purpose of this study is to Examine the relation and impact of Gross Capital formation and Gross saving on the Saudi Arabia's GDP. For the purpose of the research study secondary data related to economy of Saudi Arabia was gathered. 20 years data from the period 2000 to 2019 were considered and several key tests using SPSS were carried out, including correlation and multiple regression to examine statistical relevance of capital formation and savings on the Gross Domestic Product. The conclusion of this study is that Gross Domestic Product of Saudi Arabia is highly dependent upon Gross Capital Formation and Gross Savings of the Country and there found the positive linear relationship between GCF and growth of GDP.

Keywords: GDP Growth, Capital Formation, Gross Savings, Investment, Saudi Arabia.

INTRODUCTION

Saudi Arabia's economy is built on oil, and the government exerts tight control over major economic activity. It owns around 16% of the world's proven petroleum reserves, is the largest petroleum exporter, and is a key member of OPEC. Petroleum accounts for around 42% of GDP. Budget 2021 reveals a Deficit of 4.9% of GDP Saudi Arabia has historically concentrated its diversification efforts on energy generation, telecommunications, natural gas exploration, and petrochemicals. Now, the government has sought investors about increasing the private sector's role. Capital formation is a important term that refers to a country's net capital accumulation over an accounting period. The word relates to capital expenditures on equipment, tools, transportation assets, and electricity. Countries require capital goods to replace older ones utilized in the production of products and services. When capital items reach the end of their useful lives and cannot be replaced, production drops. In general, the higher an economy's capital formation, the faster it can raise its aggregate revenue. Gross savings are computed by subtracting gross national income from

total consumption and adding net transfers. Earlier studies were more focused on Capital Formation and its impact on GDP but no study was done to analyse the combined impact of Gross capital formation and Gross savings on the Country's Economic Growth.

Keynesian theory emphasizes investment, savings, and government spending as the primary determinants affecting the pace of GDP growth. The endogenous growth theory postulates that economic growth occurs as a result of internal economic forces rather than external ones. The notion is based on the idea that increases in innovation, knowledge and human resources have a significant impact on economic outlook and increase productivity.

Savings Ratio and Investment in the Harrod Domar Model Harrod-Domar model is a subcategory of neo-classical models. It states that growth is a function of savings rate. Certain growth theories place a high premium on domestic savings. Savings offer the capital required for investment. This investment is what fuels future growth. This has been a significant influence in Asia's economic progress. However, this is contingent upon the investment's efficiency. When savings are excessive, growth is slowed because people cannot afford to consume.

The available literature indicates that Gross capital production contributes positively to GDP. It was determined that gross fixed capital formation had significant effect on economic growth in the long run, so that gross fixed capital formation and GDP values all showed positive long run correlations with economic growth in Nigeria (Kanu et al., 2014)(Mba & Evelyn Ndidi, 2015)(Ugochukwu & Chinyere, 2013). long-run equilibrium relationship between gross capital formation and GDP(Pradhan et al., 2016). Another study found nexus between Saudi Arabian economy's Urbanization, Gross Capital Formation, and Economic Growth.(KHAN, 2020). Gross fixed capital formation has a positive link with economic growth in both the short and long run, according to a study of South Africa.(Ncanywa & Makhenyane, 2016) The findings from a worldwide sample indicated that gross capital formation has varying effects on GDP depending on the country's financial level and provided a new viewpoint on the policymaking process (Topcu et al., 2020). H1. Gross capital formation contributes to Economic growth of Saudi Arabia Gross Savings and GDP

Savings, according to classical economists, are a necessary and sufficient condition for investment formation. They felt that increasing savings would result in a rise in investment, as interest rates and economic growth would be impending. The findings of a study done in Iran and seven African countries indicate that savings and economic growth have a long-run causal relationship (Najarzadeh Reza et al., 2014)(Anoruo & Ahmad, 2001). According to (Mavrotas & Kelly, 2001) there is no causal relationship between GDP growth and private savings in India, whereas a bidirectional causal relationship appears to exist between private savings and growth in Sri Lanka. So, the one of aim of this paper is to find out whether savings positively contributes to growth of GDP or not. H2- Gross Savings has positive contribution toward economic growth of Country.

METHOD

For the purpose of the research study secondary data related to economy of Saudi Arabia was gathered. 20 years data from the period 2000 to 2019 were considered and several key tests using SPSS were carried out, including correlation and multiple regression to examine statistical relevance of capital formation and savings on the Gross Domestic Product

RESULTS AND DISCUSSION

A positive coefficient shows that as the value of the Gross capital creation increases, the mean of the Gross Domestic Product similarly tends to increase.

SUMMARY OUTPUT						
<i>Regression Statistics</i>						
Multiple R		0.985474338				
R Square		0.97115967				
Adjusted R Square		0.96776669				
Standard Error		40114832048				
Observations		20				
<i>ANOVA</i>						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	2	9.2119E+23	4.60595E+23	286.2262	0	
Residual	17	2.73564E+22	1.6092E+21		p value < 0.05	
Total	19	9.48547E+23				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	60756100497	21277377611	2.855431793	0.010948	15864757757	105647443236
Gross Capital Formation	2.41213753	0.210792285	11.44319647	0	1.967404684	2.856870377
Gross Savings	0.580336417	0.155668843	3.728019074	0.001673	0.251903866	0.908768967

R Square, is 0.9854 which indicates that 98.54% of the variability of GDP can be explained by the variance of gross capital formation and Gross savings

Gross capital formation and Gross savings both variables are statistically significant because their pvalues equal 0.00 which is less than significance level of 0.05. $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + ij$. Letting GDP = Y, Gross Capital Formation = X1, and Gross Savings = X2. The model is re-specified as $GDP = \beta_0 + \beta_1$ Gross Capital Formation + β_2 Gross Savings, where β_0 , β_1 and β_2 are the regression coefficients which are estimated from the sample data. The ij is the random error term.

From Table above, the exact regression model that can be developed is thus:
 $Y = 60756230023.279 + 2.412X_1 + 0.580X_2$

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985 ^a	.971	.968	40115060693.8 2127

a. Predictors: (Constant), GS, GCF

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	60756230023.2	21277494599.3		2.855	.011
		79	73			
	GCF	2.412	.211	.774	11.443	.000
	GS	.580	.156	.252	3.728	.002

a. Dependent Variable: GDP

The adjusted R Square value of almost 96% indicates that the regression equation makes use of nearly 96% of the data collected. The significance level for the F statistic is determined to be 1% which is within the 5% significance level. This results in the acceptance of the hypothesis that GCF & GS contribute to the GDP. Positive values of Beta coefficients show that with increase in GCF & GS there is a direct increase in GDP. The findings reveal that GCF & GS contribute positively to Saudi Arabia's economic growth.

CONCLUSION

It can be concluded that, H1 and H2 both are supported. Gross Domestic Product of Saudi Arabia is highly dependent upon Gross Capital Formation and Gross Savings of the Country and there is found the positive linear relationship between GCF and growth of GDP.

Future research suggestions include examining a range of variables for which data are accessible in order to generalize the findings of this study. This type of research will assist us in determining the extent to which various macroeconomic variables affect the GDP. Efforts must be made to mobilize the desired degree of gross national savings that may be sufficiently large to attract direct foreign investment. This is very crucial, as FDI will give a boost to economy savings.

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