

Factors of Economic growth in KSA An empirical analysis from 2000:2014

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Keywords

Oil Revenue, Investment, GDP, financing, Economic stability.

Abstract

This paper aims to conduct analysis of the impact of Oil Revenue and its relationship with all factors that affect growth in domestic product and also focuses on investment opportunity and economic growth in Saudi Arabia which has made the country an increasingly attractive destination of investment for foreign investors.

Introduction

Saudi Arabia has one of the largest economies in the Middle East and Africa. Its gross domestic product depends on oil revenues making up around 90-95% of total KSA export earnings with oil having contributed hugely to economic development. Oil was discovered in 1930 and its production started after World War II. The KSA oil reserves are the largest in the world, and the country is the world's leading oil producer and exporter. Saudi Arabia achieved economic growth which exceeded world growth in spite of the global crisis. The global rise in energy prices, as the non-oil sectors in the Kingdom has achieved remarkable growth in recent years, which accelerated in growth rates and achieved economic diversification.

Due to the stability of the economic factors in the Kingdom, the consumer confidence exceeded the regional average. On the other hand, the clear growth in private debt and credit, and increasing public spending on infrastructure and other projects, has created enormous opportunities across the Middle East. These factors have combined to achieve tangible development steps.

Objectives of the study

This study try to achieve the following objectives:-

1. To know all factors that affect in Saudi Arabia Economy during the period.
2. To know the effective of foreign direct investment on growth domestic product in KSA.
3. To test the basic factors that responsible for economic growth.
4. To suggest the necessary recommendations that will raise economic growth level.

Methodology of the study

This study will follow some recent previous studies that related to economic growth, then proposed econometric model to testify the variables that be responsible of growth in KSA.

Hypotheses

1. There is a positive relationship between growth level and oil Revenues
2. There is an inverse relationship between growth level and percentage of exports

Limitation of the study

The present study will be limited to analyze the basic factors of growth in Saudi Arabia during period of (2000-2014).

Theoretical Background

The main theory of economic growth was presented by neo-classical model Solow (1956). The model had difference assumptions to depend on such as, constant returns to scale, diminishing marginal productivity of capital, exogenously determined technical progress and substitutability between capital and labour. However, the Solow's model highlights the saving or investment ratio as important determinant of short- run economic growth and technological progress is the important determinant also in long - run.

Solow model predicts growth rates in poor economies will grow faster than rich economies. Technological progress is considered an engine of long run economic growth that includes knowledge, innovation and other technological application that will induce economic growth. These studies (Romer's 1986) and (Lucas' 1988) mentioned three sources of growth as new knowledge m innovation and public infrastructure.

Review of literature

(Abu-Eideh, 2013) this study aimed to analyze performance of Palestinian exports and its impact on economic growth to identify the relationship between exports and GDP. The results of the study there is a positive impact of Palestinian exports on the GDP, there is significant effect on the structural change of the manufacturer industrial sector on the growth of exports, the results were unclear and also data showed appositve effect of the growth of labour force of both exports and manufacturer industrial growth , and inverse effect in GDP.

On the regional level (AL- Raimony, 2011) determinants of economic growth in Jordan. This study aimed to analyze the relationship between elasticity's of labour, real capital, real export and real import and economic development .the study results showed that there is negative relationship between real import growth and real GDP growth.

The basic recommendations were that Jordan needs to adopt a comprehensive training program to improve labour productivity also, it also has to pay more attention to the export sector which plays a significant role in the improvement of the balance of trade as well as the balance of payments enables the country to import the essential capital goods to raise productivity.

Another study by the (IMF) 2011, that aimed to study the macroeconomic and fiscal framework for the West Bank and Gaza, according to this study the sources of economic growth in Palestine is the capital and labour force and the productivity of the factors of production .

In another international study, (Petraikos, at, al, 2007) in this paper prepared questionnaire to explore experts' views on the factors underlying economic dynamism. The results of the survey were:-

- First, the survey determine a number of important determinants of economic dynamism at the global scale. These determinants are consistent with the relevant mainstream literature but also with most recent development, highlighting the increasing influence of political and institutional factors.
- Second, it was found that the determinants of economic dynamism don't have the same influence in advanced and less advanced countries don't have the same influence in advanced and less advanced countries. There are different indicators between developed and developing countries.

In general, the result of this part of questionnaire raise a question for the efficiency of a number of existing development.

- Third, respondents tend to select overall balanced combinations of opposite characteristics related to theoretical or policy dilemmas in their effort to promote economic dynamism.
- Fourth, satisfaction with different theoretical paradigms varies among respondents according to their occupation (academia, private sector, public sector). These three indicators represent a different understanding of the main functions of the economy among three groups. Theoretical examples highly popular in the academia appear in the last places of preference for people working in private sector.

Another study in Egypt, (Anton & Iqbal, 2005) this study examined determinants of growth in Egypt during 1980s by using econometric techniques. The result of the study trends in government consumption, credit to the private sector and the average growth rate of OECD countries have been significant of growth in Egypt in the past. (Bosworth & Collins 1998) studied the sources of economic growth in 88 countries during the period (1960 - 1996) this study reached to miracle in the countries of East Asia as a result of increasing in saving and capital accumulation, not to technological development in short run, but technological development were the main reason of economic growth in the long run.

Another international study by (Martin, 1997) which determines various variables that have strong effect on economic growth like political factors , contains the quality of government , the strength of law and protection of property rights , and the factors related to investment level , the concentration of exports on raw materials , the level of openness in the economy , education standards and the stability in the macro economic variables such as inflation , exchange rate and public budget deficit .

Factors that changed the economy of Saudi Arabia

There are many factors affect in economy in Saudi Arabia:-

First: oil (petroleum) sector

Saudi Arabia is an important oil producer in the world. The discovery of huge reserve of oil by an American company in 1938, establishment of the Arab American Oil Company "Armco"

To improve earnings from its hydrocarbon reserves, Saudi Arabia began building a string of refineries in the 1960s, which produced gasoline, fuel and diesel oil, liquefied petroleum gas (LPG), jet fuel, kerosene and other petroleum products for the domestic market and for export. The Kingdom now has nine refining complexes with an output of eight million barrels per day (bpd), most of which is exported to customers around the globe.

Saudi Arabia also possesses vast reserves of natural gas, including dissolved, associated and non-associated. Until the 1970s, most of the natural gas produced in the Kingdom was in association with crude oil production and was flared at the wellhead.

Second: Economic stability

Saudi Arabia achieved economic stability largely because of government spending, fiscal policies, low cost rates of loans addition its controls to inflation. Although there have been many global liquidity crises effect Saudi Arabia has remained economically stable and has become an attractive environment for investment. The Saudi Arabian economy is considered an economic powerhouse in the region and ranked No (19) in the world, where the KSA is considered a commercial crossing point between East and West , making it a gateway to the global economy and a gate way to regional markets.

Third: Agriculture Sector

Saudi Arabia suffers from a marked lack of rivers, thus periodic and unpredictable rainfall is the main source of water for agriculture. By addressing the issue of water security Saudi Arabia

has made that dream a reality, producing a wide range of agricultural products from barley to watermelons; achieving self-sufficiency in many areas, such as wheat, dairy products and fruits; and exporting to other countries a variety of farm products, from strawberries to flowers.

The key to agriculture throughout the world historically has been the availability, or the absence, of water. Most of the Kingdom is covered by desert and arid land, yet there are fertile areas, such as the Asir in the southwest, that receive rainfall, as well as oases, such as Al-Qatif and Al-Hasa, that have for centuries produced dates and limited quantities of cereals and vegetables. In recent decades Saudi Arabia has undertaken to expand agricultural production in the traditionally fertile areas as well as extend it to other regions that have fertile soil.

The Kingdom of Saudi Arabia is now considered a major producer of agricultural goods, and whereby previously output was limited to a few crops, this sector now enjoys great diversity. The country is producing nearly nine million tons of cereals, fruits, vegetables and fodder every year on 11 million acres of land under cultivation. Saudi farmers produce some 2.2 million tons of wheat and barley, 2.7 million tons of vegetables, 1.2 million tons of fruit and nearly three million tons of alfalfa and other types of fodder for the livestock industry.

Fourth: Commerce and finance

The financial system in Saudi Arabia represents a center of commerce for centuries. The finance sector has brought about a parallel expansion of the commercial sector, especially in the past three decades. Generous government incentives, including the provision of long-term interest-free loans and support services and facilities, have encouraged the rapid expansion of the commercial sector. The establishment of chambers of commerce and industry in the major cities and regions of the Kingdom has also promoted the formation of new, and expansion of existing, commercial companies. The existence of a modern banking industry capable of meeting the requirements of businesses large and small has further promoted commercial operations in recent years.

As a result, there are currently some 9,800 firms, mostly joint stock companies, involved in commercial activities in the Kingdom. Their total invested capital is estimated to be more than 170 billion riyals (more than 45 billion dollars) Saudi Arabia has established specialized credit institutions to support all investment small or large businesses.

-Saudi Industrial Development Fund (SIDF):

Provides low-cost medium and long-term capital for industrial projects. In addition the Fund provides marketing, technical and financial advice to all Fund-financed projects to enhance their chances of success. With the issuance of the new foreign investment law, SIDF will extend its loans to projects fully owned by foreigners.

-Public Investment Fund:

Provides medium and long-term loans to the large-scale government and private industrial projects that Saudi commercial banks fail to finance.

- Real Estate Development Fund:

Provides medium or long-term loans to individuals or organizations for private or commercial housing projects.

-Saudi Arabian Agricultural Bank:

Provides loans to farmers and agricultural projects.

-Saudi Commercial and Islamic Banks:

Saudi commercial banks also provide investors with various types of loans.

Fifth: Private sector

These private sector companies represent 48% of the nation's gross domestic product (GDP) of 618 billion riyals. In addition to handling the manufacture, distribution and sale of domestic

products, these companies also handle the bulk of imports of consumer and industrial goods, as well as much of the export of non-oil products. Saudi Arabia is among the top 20 exporters and import markets in the world. Exports of non-oil products to some 90 countries worldwide average some six billion dollars per year.

Sixth: Investment

Saudi Arabia offers a dynamic and strong economy, perfect for serving the world’s most demanding markets. There are many reason for invest in Saudi Arabia:-

- Saudi Arabia is the largest ICT market. Removing barriers, privatization and WTO accession promoting private-sector opportunities that supported by investment incentives.
- Public, private funding partnerships such as R&D co-funding initiatives by King Abdel Aziz City.
- Strong commitment to e-commerce and e-governance initiatives.
- increased enterprise and government usage of web-based services provide large-scale opportunities for contractors and service providers
- Massive public investment in connectivity for Economic Cities provides unique opportunities for green-field projects covering millions of users
- Public investment in computer and Internet literacy programs.

Study Model

According to the effect of exports, imports, labour, and oil revenue on growth level in Saudi Arabia, so we will use multi regression model where:

$$Y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5$$

$b_0, b_1, b_2, b_3, b_4, b_5$ Are represent the variable Parameters but (b_0) is constant , and :-

x_1 : Exports

x_2 : Imports

x_3 : FDI(foreign domestic investment)

x_4 : Labour(w)

x_5 : OR (oil revenue)

Y : GDP

The predictable values of coefficient are

$$b_1 < 0, b_2 > 0, b_3 > 0, b_4 < 0, b_5 > 0$$

The value of degree (coefficient) of independent variable measured the responsiveness dependent variable (growth level GDP).

Empirical Study

The following table shows the empirical results of the OLS Model, table (1) is showing Excluded variable.

Table (1)

Model	Beta In	T	Sig.
1 Exports	-.159 ^a	-.218	.831
Imports	.005 ^a	.017	.987
FDI	.010 ^a	.044	.965
WL	-.023 ^a	-.092	.928

This means the equation of multi regression equal (oil revenues is represent the main effect in gross domestic product)

Table (2)

Variables	B	T	F	R ²	Adjusted R ²	DW
(Constant)	- 6.735	-1.788	10.877	0.475	0.43	1.445
x5 OR	0.273	3.298				

Where R² =47% it means the model is suitable to determines the effect of oil revenue on gross domestic product level in Saudi Arabia.

X₅ (Oil Revenue) approximately illustrate 47% from Y (dependent variable)

Table (3)

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	54.653	1	54.653	10.877	.006 ^a
	Residual	60.295	12	5.025		
	Total	114.949	13			

a. Predictors: (Constant), OR

b. Dependent Variable: GDP

From this table, we can test significance of regression by comparing P. value =0.006 with significant level = 0.05.

P. value < significant level where regression = 0.006, it means regression is significant model. Also we can test B₅ (oil Revenue) from coefficient table.

Table (4)
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-6.735	3.766		-1.788	.099	-14.941	1.471
OR	.273	.083	.690	3.298	.006	.093	.453

We will compare P. value with sig. level

If P. value < Sig

0.006 of Oil revenue is less than of sig 0.05 it means OR is significance, The equation of Model will be :-

$$Y = B_0 + B_5OR$$

$$Y = - 6.735 + 0.273 OR$$

Table (5)
Correlation Matrix

Pearson correlation	GDP	Exports	Imports	FDI	WL	OR
GDP Correlation Sig	1	.644* 0.013	.460 0.098	.166 .570	.292 311	.690** .006
Exports Correlation Sig	.644* .013	1	.713** .004	.265 .359	.592* .026	.954** .000
Imports Correlation Sig	.460 .098	.713** .004	1	.573* .032	.712** 0.004	.662** .010
FDI Correlation Sig	.166 .570	.265 .359	.573* 0.032	1	.685** 0.007	.227 .434
W L Correlation Sig	.292 .311	.592* .026	.712** .004	.685** .007	1	.450 .106
O R Correlation Sig	.690** .006	.954** .000	.662** .010	.227 .434	.450 .106	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Results:

As this study aim to analysis main factors that effect of economic growth in Saudi Arabia we reach to these results:-

- There is positive relationship between Growth Domestic Product and oil revenue at significance level (0.006).
- There is a strong positive relationship between exports and oil revenue at significance level (0.000).
- Finally after analyzing factors that affect in Saudi Arabia economy we should know that Saudi Arabia ranked at number forty in the world. And it had ability to attract lot of investment and also increase the income resources instead of depending on oil revenues as a unique resources for income.

The Kingdom's economy is expected to continue its robust performance in coming years. The government is fully committed to continue implementation programs of economic growth in perusing the achievement of sustainable development and improved competitiveness Saudi economy.

Recommendation

- Petroleum is consider non-renewable resources, so government should give non petroleum exports maximum importance to increase level of gross domestic product.
- Motivate governments on taking over effective policies to attract local and foreign investment.
- Governments should grow relations with private sector in order to increase the growth domestic product.
- Motivate the relations with private sector especially in non-oil sector.
- Governments should create laws that motivate and diversification the sources of income and increase fields of exports.

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