



An Empirical Analysis of The Effect Of Saudi's Riyal Exchange Rate Against Uk Pound On Saudi's Export To Uk

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Abstract

The objective of this study is to investigate the effect of exchange rate in Saudi Arabia against UK pound on Saudi's export to UK, By using exchange rate as a representative of the supply side of the Saudi's export, and on the other side by using UK's industrial production index as a representative of the demand side for the Saudi export. This study used a multiple regression and correlation to find out the relationship between exchange rate of Saudi Riyal against UK pound and export in Saudi Arabia to UK. The quantitative approach was employed, and the data was obtain from annually covered from 1990 to 2019, all the data i.e. exchange rate of Saudi riyal against UK pound, Saudi's export to UK, and UK's industrial production index, are taken from the Global Market Information Database website. The results indicates that exchange rate have a positive and insignificant effect on Saudi's export to UK.

Introduction

According to the competitive advantage theory each country should use its competitive advantage to specialize in its production and rely on other country for other products. Furthermore, the theory of imperfect market suggests that each country should specialize based on its resources; therefore some countries need its product. Moreover, the theory of product cycle suggests that after firms are established in their home country they commonly tend to expand their product in foreign countries. All of these theories highlight the importance of export and import to the whole world.

There are many factors that affect the export; one of them is exchange rate. The impact of exchange rate on the of international trade has been studied intensively during 1970's when the world economy shifted from fixed exchange rate to free floating exchange rate (Ahmed, 2009). Theoretically, the effect of exchange rate variability on exports is still a debatable issue (David, 2004). The hypotheses may be that if the exchange rate volatility is higher than it will generate uncertainty of the future profit from export trade. In other word, if the domestic currency becomes weaker against other particular foreign currency, this will encourage export to that foreign country in order to benefit from exchanging the foreign currency to the local currency. However, as the hypotheses stated the volatility in the exchange rate may effect of expectation about future profits from exports.

The Kingdom of Saudi Arabia is politically and economically stable. The Kingdom is the easiest place to do business in the Middle East and Africa. Openness to trade and investment is improving, and taxes are low. Yet, the classification of Saudi Arabia progressive in all international reports, including The World Bank report on the ease of doing business, the Kingdom of Saudi Arabia is in the first place in the Middle East and eleventh globally among 183 countries, indicating that the Kingdom is from the top five countries in the world in doing economic reforms during the past five years. However, the Saudi economic influenced by external factors such as world demand, international trade, exchange rate, and etc... .

Even though, the Saudi currency (Riyal) is pegged to the US dollar at $US\$1 = SR3.745$. However, this study investigates the relationship between the Saudi riyal and UK bound which is freely floating. Here in this study the exchange rate between the Saudi riyal and UK bound is measured to see its effect on export from Saudi Arabia to UK.

Saudi Arabia has set up institutions for the development of export to assist companies in order to enter the field of export. According to Saudi Export Development Center (SEDC) the opportunity is favorable to producers in Saudi Arabia is now more than ever to take advantage of these shifts in markets and export, for the following reasons:

- Increase sales and profits: If the company is successful locally, the expansion in foreign markets improve their profitability
- Get a share in the global market: through the export company from its competitors learn strategies and methods used to obtain a share in foreign markets.
- Expand the marketing base in the domestic and global markets: through expansion in foreign markets, the company can expand the marketing base to cover foreign and domestic markets.

- To overcome the volatility of the market: by working in global markets the company is no longer captive to economic changes and the varying demands of consumers and seasonal fluctuations in the local economy.
- Strengthening competitiveness: export enhances the competitive advantage for the company and the country. While the company benefits from the acquisition of technologies and methods and new processes, the country benefit from improved balance of trade.
- Creating local jobs.
- To help reduce the trade deficit: non-oil exports in Saudi Arabia's have been gradually contributing to improve the balance of payments.

The objective of the present study is to investigate the effect of exchange rate in Saudi Arabia against UK pound on Saudi's export to UK. By using exchange rate as a representative of the supply side of the Saudi's export, and on the other side by using UK's industrial production index as a representative of the demand side for the Saudi export.

Literature Review & Conceptual Framework

Previous studies about the effect of exchange rate on trade volume have contradictory results. Many studies support the hypothesis that the volatility of exchange rate reduces the volume of trade Akhtar and Hilton (1984); and Arize (1995). On the other hand, Asseery and Peel (1991) could not establish any significant impact of exchange rate volatility on the volume of trade, and found no evidence about the impact of exchange rate volatility on trade (Mustafa & Nishat, 2006). However, there are some studies shows ambiguous results (Mustafa & Nishat, 2006; Shoaib, 2009). They found for some countries a negative but significant relationship between exchange rate and international trade growth, and for some countries insignificant result.

The empirical evidences regard to the effect of exchange rate on export growth to developing countries are inconclusive as they have explained variation in exchange rate policies and level of growth. Bahmani-Oskooee (1984, 1986) found that even developing countries had pegged exchange rates, exchange rate has a significant impact on trade flows (Mustafa & Nishat, 2006). Coes (1981) and Rana (1983) analysed this issue on the basis of Hooper-Kohlhagen (1978) study using annual data. Coes (1981) examines Brazilian exports (as a proportion of the total value added) in 9 primary and 13 manufacturing sectors for 1965-74. His result indicated that the significant reduction in exchange rate uncertainty in the Brazilian economy during the crawling peg period might have contributed as much as the changes in prices toward the greater openness of the economy after 1968 (Shoaib, 2009). It is concluded that different studies have different results. The reasons are different methodology, the different sample period, and different estimation techniques.

Methodology

This study aims to investigate that, does the exchange rate against UK pound have effect on the export to UK. First of all, export influenced by many factors, from both supply side and from demand side, the most important with respect to this study is exchange rate. However, the exchange rate influences both the supply of and demand for export. This study selected one factor from both sides that influence export and discussed the reasons for each selection.

First, the study selected exchange rate as a factor that influence the supply of export, since the goal of this study is to investigate the effect of exchange rate on export, the exchange rate against UK pound is assumed that have strong effect from supply side on export to UK. It is assumed that if the local currency is weaker against the foreign this will encourage the export to that country. Therefore, this study hypothesized that if the Saudi Riyal is weaker then the UK pound will encourage export from Saudi Arabia to UK.

H1: the exchange rate against UK pound has positive and significant relationship with export of Saudi Arabia to UK.

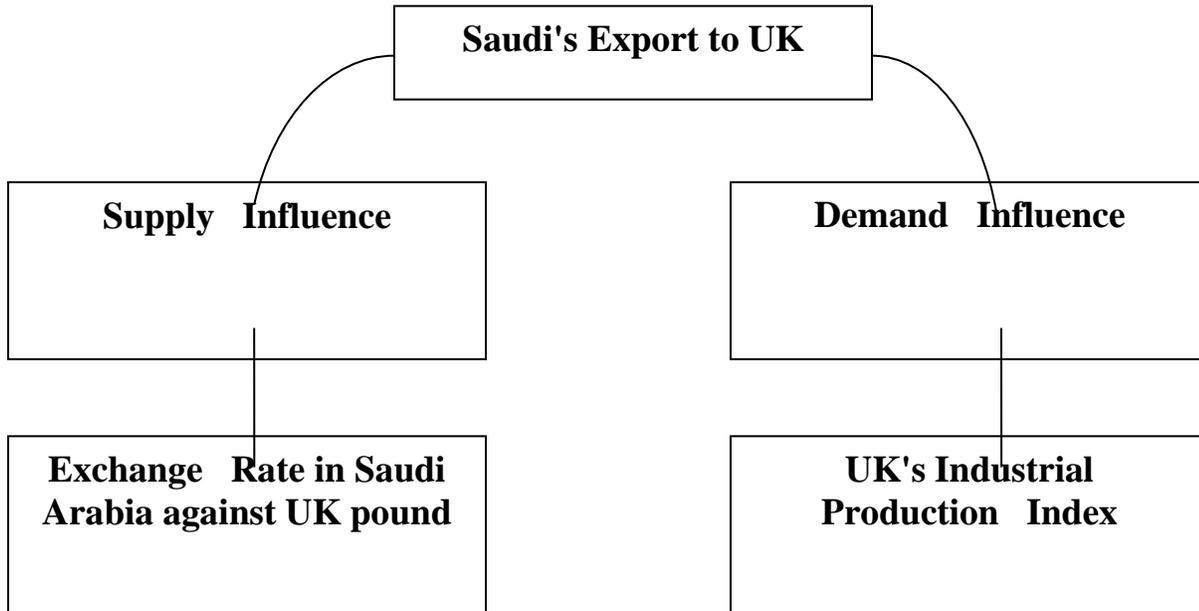
H0: the exchange rate against UK pound has insignificant relationship with export of Saudi Arabia to UK.

Secondly, as a factor that influences the demand for the Saudi export to UK, this study has selected the industrial production index. Before discussing this factor, brief definition is important. The Industrial Production Index (IPI) is an economic indicator measures the monthly level of the physical output of the manufacturing, mining, and gas and electric utility industries. When industrial production is down, it indicates a slowing of economic growth (Economic Terminology). The study has selected this factor to indicate the demand for the Saudi export since the major export of Saudi Arabia is oil, and the non-oil are considered basic products such as plastic products, iron, steel, etc. Therefore, this study hypothesized that if industrial production in UK is high; the demand for Saudi export is also high.

H2: Industrial Production Index in UK has positive and significant relationship with the export of Saudi Arabia.

H0: Industrial Production Index in UK has insignificant relationship with the export of Saudi Arabia to UK.

Based on the above discussion, a theoretical framework of the influences of the Saudi's export to UK is illustrated in figure 1.



Figur1: Proposed framework of the influences of Saudi export to UK

To investigate whether the exchange rate affect the export of Saudi Arabia to United Kingdom, this study used multiple regression and correlation used in this study to find out the relationship between exchange rate of Saudi Riyal against UK pound and export in Saudi Arabia to UK.

Based on the above discussion the following equation is estimated:

$$Exp = \alpha + \beta_1 ExchR + \beta_2 IndP + e_i$$

Where *Exp* denotes the exports from Saudi Arabia to UK, while *ExchR* is the exchange rate of Saudi riyal against UK pound, and *IndP* is the UK's industrial production index. Many study has been used the industrial production index as proxy variable Mustafa & Nishat, 2006; Shoaib, 2009.

Data

The data used in this study is annually covered from 1990 to 2019, all the data i.e. exchange rate of Saudi riyal against UK pound, Saudi's export to UK, and UK's industrial production index, are taken from the Global Market Information Database website.

Analysis and Findings

Here the study provides the results from the analysis of data and its interpretation. First the study presents correlation between dependent variable and independent variables.

Correlation model

Descriptive Statistics

N	Std. Deviation	Mean	
20	498.71104	904.3800	EXPOR T
20	.54432	5.9950	EXCHR
15	5.47279	100.4000	IND.PR O

Correlations

IND.PR O	EXCHR	EXPOR T		
.248	.156	1	Pearson Correlation	EXPOR T
.372	.510	20	Sig. (2-tailed)	
15	20	20	N	
-.404	1	.156	Pearson Correlation	EXCHR
.135		.510	Sig. (2-tailed)	

15	20	20	N	
1	-.404	.248	Pearson Correlation	IND.PR O
	.135	.372	Sig. (2-tailed)	
15	15	15	N	

Correlation analysis shows that export is insignificant with exchange rate and industrial production index. The analysis also shows all IVs are insignificantly correlated with each other.

Testing the Hypotheses

Hypothesis 1

Correlations between exchange rate and export

	Pearson Correlation (r)	significant
Exchange rate	.156	.510

From the above table we found that there is insignificant relationship between exchange rate and export. Therefore we reject H1 and we accept the null hypothesis.

Hypothesis 2

Correlations between industrial production index and export

	Pearson Correlation (r)	significant
industrial production index	.248	.372

From the above table we found that there is insignificant relationship between industrial production index and export. So, we reject H2 and we accept the null hypothesis.

Regression model

Model Summary

Sig. F Change	Change Statistics				Std. Error of the Estimate	Adjusted R Square	R Square	R	Model
	df2	df1	F Change	R Square Change					
.524	12	2	.682	.102	511.60638	-.048	.102	.319(a)	1

a Predictors: (Constant), IND.PRO, EXCHR

ANOVA(b)

Sig.	F	Mean Square	df	Sum of Squares		Model
.524(a)	.682	178457.781	2	356915.563	Regression	1
		261741.089	12	3140893.067	Residual	
			14	3497808.629	Total	

a Predictors: (Constant), IND.PRO, EXCHR

b Dependent Variable: EXPORT

Coefficients(a)

Collinearity Statistics		Sig.	t	Standardized Coefficients Beta	Unstandardized Coefficients			Model
VIF	Tolerance				Std. Error	B		
		.396	-.880		4037.058	-.3552050	(Constant)	1
1.195	.837	.477	.734	.220	338.298	248.347	EXCHR	
1.195	.837	.282	1.127	.337	27.313	30.791	IND.PRO O	

a Dependent Variable: EXPORT

The first Table "model summary" shows the two independent variables entered into the regression model. When all the inter-correlation among the two independent variables is taken into account, the R square is .102; this means that 10.2% of the variance is explained on export from the two independent variables. However, we refer that to the government influence on export, since the oil has the biggest proportion of the Saudi's export which is under the government control. In addition to that, the Saudi economy is a Dollar economy; most of the Saudi goods are priced in Dollar which means the UK pound has not direct effect to the export, even export to UK, because the Saudi's goods are sold in Dollar.

The ANOVA Table shows that the F value is insignificant at $p=.524$ when two variables are entered together.

The above models explain the relationship between the independent variables and the dependent variable. Moreover, these models are insignificant and the two independent variables cannot use as predictors of the export, The main goal of observing the adjusted value of R square is to apprehend the best model that can explain export to UK. The above model explains Saudi's to UK. So the function for regression equation for the above model is:

$$Exp = -3552.05 + 248.347ExchR + 30.791IndP + e_i$$

The result of the hypotheses of two independent variables tested on the dependent variable export. The equation applied in this study is examined against multicollinearity. This study used Pearson Correlation analysis to determine the relationship between dependent variable towards independent variables. Multiple regression analysis also used in this study to describe the Saudi's export to UK. Thus, The authors conclude that the relationship between Saudi's export to UK and (exchange rate and industrial production index) is positively but insignificant.

Conclusion

The objective of this study is to investigate the effect of exchange rate of Saudi's riyal against the UK pound. Based on previous studies, this study used exchange rate (Independent variable) as a representative of the supply side of the Saudi's export, and on the other side used UK's industrial production index (Independent variable) as a representative of the demand side for the Saudi export. This study used multiple regressions and correlation used in this study to find out the

relationship between exchange rate of Saudi Riyal against UK pound and export in Saudi Arabia to UK by using annually data from 1990 to 2019.

The results indicates that exchange rate have a positive and insignificant effect on Saudi's export to UK. However, previous studies have shown similar result. However, we refer that to the government influence on export, since the oil has the biggest proportion of the Saudi's export which is under the government control. In addition to that, the Saudi economy is a Dollar economy and most of the Saudi's goods are priced in Dollar which means the UK pound has not direct effect on Saudi's export, even export to UK, because the Saudi's goods are sold in Dollar.

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