THE EFFECT OF IRAQ’S DINAR EXCHANGE RATE AGAINST UK POUND ON IRAQ’S EXPORT TO UK

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ABSTRACT
Recently, Iraq is the 43rd largest export economy in the world, given its oil potential Iraq seeks a larger role in the Organization of the Petroleum Exporting Countries (OPEC) and to strengthen its ties with its Arab neighbors. It is a member of the League of the Arab States and the Great Arab Free Trade Agreement. In 2013, Iraq ratified a Trade and Investment Framework Agreement (TIFA) and the Partnership and Cooperation Agreement with the European Union in 2012. According to the mystery of trade in Iraq the opportunity is favorable to producers in Iraq is now more than ever to take advantage of these shifts in markets and export, therefore, The objective of the present study is to investigate the effect of exchange rate in Iraq against UK pound on Iraq’s export to the UK. By using the exchange rate as a representative of the supply side of Iraq export, and on the other side by using the UK’s industrial production index as a representative of the demand side for Iraq export. This study used multiple regressions and correlations used in this study to find out the relationship between the exchange rate of Iraq Dinar against UK pound and export to Iraq to the UK by using annual data from 2000 to 2019. The results indicate that the exchange rate has a positive and insignificant effect on Iraq export to the UK.

Keywords: Exchange Rate, UK Pound, Iraq’s Export, United Kingdom.

INTRODUCTION
The Republic of Iraq is politically and economically is not stable. Iraq is the 43rd largest export economy in the world. In 2017, Iraq exported $60.8B and imported $29.7B, resulting in a positive trade balance of $31B. In 2017 the GDP of Iraq was $192B and its GDP per capita was $16.9k. The top exports of Iraq are Crude Petroleum ($57.5B), Refined Petroleum ($1.47B), Gold ($1.48B), Petroleum Gas ($92.5M) and Tropical Fruits ($66.7M), using the 1992 revision of the HS (Harmonized System) classification. Its top imports are Jewellery ($960M), Packaged Medicaments ($677M), Poultry Meat ($643M), Cars ($629M) and Gold ($621M). The top export destinations of Iraq are India ($14B), China ($12.5B), the United States ($10B), South Korea ($5.74B) and Greece ($3.25B). The top import origins are Turkey ($9.1B), China ($8.31B), South Korea ($1.46B), India ($1.19B) and Brazil ($810M).

Its oil potential Iraq seeks a larger role in the Organization of the Petroleum Exporting Countries (OPEC) and to strengthen its ties with its Arab neighbors. It is a member of the League of the Arab States and the Great Arab Free Trade Agreement. In 2013, Iraq ratified a Trade and Investment Framework Agreement (TIFA) and the Partnership and Cooperation Agreement with the European Union in 2012. Furthermore, Exports in Iraq increased to 87260 USD Million in 2018 from 57559 USD Million in 2017. Exports in Iraq averaged 38475.53 USD Million from 1988 until 2018, reaching an all-time high of 94209 USD Million in 2012 and a record low of 1720.40 USD Million in 1994. Openness to trade and investment is improving, and taxes are low. Yet, the classification of Iraq progressive in all international reports, including The World Bank report on the ease of doing business, the Republic of Iraq is in the Middle East and 43 globally among 183 countries, indicating that the Republic is from the top five countries in the world in doing economic reforms during the past five years. However, the Iraqi economic influenced by external factors such as world demand, international trade, exchange rate, and etc... Even though, the Iraq currency (Dinar) is pegged to the US dollar at US$1 = ID1200. However, this study investigates the relationship between the Iraq Dinar and UK bound which is freely floating. Here in this study the exchange rate between the Iraq Dinar and UK bound is measured to see its effect on export from Iraq to UK.
these shifts in markets and export, for the following reasons. First, Increase sales and profits: If the company is successful locally, the expansion in foreign markets improve their profitability. Second, 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. Third, 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. Fourth, 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.

According to the competitive advantage theory, each country should use its competitive advantage to specialize in its production and rely on other countries 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. Therefore, there are many factors that affect the export; one of them is the exchange rate. The impact of the exchange rate on of international trade has been studied intensively during 1970’s when the world economy shifted from a 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 objective of the present study is to investigate the effect of exchange rate in Iraq against UK pound on Iraq’s export to U K. By using exchange rate as a representative of the supply side of the Iraq’s export, and on the other side by using UK’s industrial production index as a representative of the demand side for the Iraq 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 (Cushman [1983, 1986, 1988]; De Grauwe [1988]; Koray and Lastrapes [1989]; and Arize [1995]). On the other hand, Hooper and Kohlhagen (1978), Gotur (1985), Bailey, Tavlas and Ulan (1987), and 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 arte 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 (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 Iraq Dinar is weaker than the UK pound will encourage export from Iraq to UK [14-16].

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

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

Secondly, as a factor that influences the demand for the Iraq 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 Iraq export since the major export of Iraq 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 Iraq export is also high.

\[ H_2: \text{Industrial Production Index in UK has positive and significant relationship with the export of Iraq.} \]

\[ H_0: \text{Industrial Production Index in UK has insignificant relationship with the export of Iraq to UK.} \]

Based on the above discussion, a theoretical framework of the influences of the Iraq's export to UK is illustrated in figure 3.

![Fig.3: Proposed framework of the influences of Iraq export to UK](image)

To investigate whether the exchange rate affect the export of Iraq to United Republic, this study used multiple regression and correlation used in this study to find out the relationship between exchange rate of Iraq Dinar against UK pound and export in Iraq to UK. Based on the above discussion the following equation is estimated:

\[ \text{Exp} = \alpha + \beta_1 \text{ExchR} + \beta_2 \text{IndP} + \epsilon_i \]

Where \( \text{Exp} \) denotes the exports from Iraq to UK while \( \text{ExchR} \) is the exchange rate of Iraq Dinar against UK pound, and \( \text{IndP} \) 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 2000 to 2019, all the data i.e. exchange rate of Iraq Dinar against UK pound, Iraq'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**

| Table 1: Descriptive Statistics |
|---------------------------------|
| N     | Std. Deviation | Mean   |          |
|-------|----------------|--------|----------|
| 20    | 498.71104      | 904.3800 | EXPORT  |
| 20    | .54432         | 5.9950  | EXCHR    |
| 15    | 5.47279        | 100.4000 | IND.PRO  |

| Table 2: Correlations |
|-----------------------|
| IND.PRO | EXCHR | EXPORT | Pearson Correlation | Sig. (2-tailed) |
| .248    | .156  | 1      | EXP              |
| .372    | .510  | 1      | Sig. (2-tailed)   |
| 15      | 20    | 20     | N                |
| -404    | 1     | .156   | Pearson Correlation | EXCHR   |
| .135    | .510  | 1      | Sig. (2-tailed)   |
| 15      | 20    | 20     | N                |
| 1       | -404  | .248   | Pearson Correlation | IND.PRO |
| .135    | .372  | 1      | 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

Table 3: Correlations between exchange rate and export

| Pearson Correlation (r) | significant |
|-------------------------|-------------|
| Exchange rate           | 0.156       |
|                         | 0.510       |

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

Table 4: Correlations between industrial production index and export

| Pearson Correlation (r) | significant |
|-------------------------|-------------|
| industrial production index | 0.248       |
|                         | 0.372       |

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.

Table 5: Regression Model Summary

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

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

Table 6: ANOVA (b)

| Model | Sig. | F | Mean Square | df | Sum of Squares | Model |
|-------|------|---|-------------|----|----------------|-------|
| 1     | .524(a) | .682 | 178457.781 | 2  | 356915563 | Regression |
|       |       |     | 261741.089 | 12 | 1340893067 | Residual |
|       |       |     | 3497808629 | 14 |             | Total |

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

b Dependent Variable: EXPORT

Table 7: Coefficients (a)

| Model | VIF | Tolerance | Sig. | t | Beta | Std. Error | B |
|-------|-----|-----------|------|---|------|------------|---|
| 1     | 1.195 | .837 | .396 | -880 | 4037.058 | -3552.050 |
|       | 1.195 | .822 | .477 | .734 | .220 | 338.298 | 248.347 |
|       | 1.195 | .837 | .282 | 1.127 | .337 | 27.313 | 30.791 |

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 Iraq’s export which is under the government control. In addition to that, the Iraq economy is a Dollar economy; most of the Iraq goods are priced in Dollar which means the UK pound has not direct effect to the export, even export to UK, because the Iraq’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 Iraq’s to UK. So the function for regression equation for the above model is:

\[ \text{Exp} = -3552.05 + 248.347 \times \text{EXCHR} + 30.791 \times \text{IND.P} + e_i \]

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 Iraq’s export to UK. We can conclude that the relationship between Iraq’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 the exchange rate of Iraq Dinar against the UK pound. Based on previous studies, this study used the exchange rate (Independent variable) as a representative of the supply side of Iraq’s export, and on the other side used UK’s industrial production index (Independent variable) as a representative of the demand side for the Iraq export. This study used multiple regressions and correlations used in this study to find out the relationship between the exchange rate of Iraq Dinar against UK pound and export in Iraq to the UK by using annual data from 2000 to 2019. The results indicate that the exchange rate has a positive and insignificant effect on Iraq export to the UK. However, previous studies have shown similar results. However, we referred that to the government’s influence on export, since the oil has the biggest proportion of Iraq export which is under government control. In addition to that, the Iraq economy is a Dollar economy and most of the Iraq’s goods are priced in Dollar which means the UK pound has no direct effect on Iraq export, even export to the UK, because the Iraq’s goods are sold in Dollar.

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