

## Are Inflation, Exchange Rates, Exports Imports Impacted toward Growth of Economics? The Empirical Studies in Qatar

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### ABSTRACT

*This research aims to analyze how exchange rates, inflation, exports, and imports have influenced the economic growth of Qatar between 2000 and 2020. The study utilizes multiple linear regression as its methodology and obtains data on exchange rates, exports, imports, and inflation from the World Bank. The findings of the study indicate that changes in the exchange rate, inflation, exports, and imports all have an impact on Qatar's GDP. In other words, an improvement in these factors leads to an increase in GDP, while a negative influence on these factors results in a decline in GDP. Additionally, the study reveals a positive correlation between Qatar's exchange rate and its economic growth. This means that when the exchange rate rises, so does the level of economic development.*

*Keywords: Qatar, Inflation, Kurs, export, Import.*

### ABSTRAK

*Penelitian ini bertujuan untuk menganalisis bagaimana nilai tukar, inflasi, ekspor, dan impor mempengaruhi pertumbuhan ekonomi Qatar antara tahun 2000 dan 2020. Penelitian ini menggunakan regresi linier berganda sebagai metodologinya dan memperoleh data nilai tukar, ekspor, impor, dan inflasi dari Bank Dunia. Temuan penelitian menunjukkan bahwa perubahan nilai tukar, inflasi, ekspor, dan impor semuanya berdampak pada PDB Qatar. Dengan kata lain, perbaikan pada faktor-faktor tersebut menyebabkan peningkatan PDB, sedangkan pengaruh negatif terhadap faktor-faktor tersebut mengakibatkan penurunan PDB. Selain itu, penelitian ini mengungkapkan korelasi positif antara nilai tukar Qatar dan pertumbuhan ekonominya. Artinya, ketika nilai tukar naik, maka tingkat pembangunan ekonomi juga meningkat.*

*Kata Kunci : Qatar, Inflasi, Kurs, Ekspor, Impor.*

## INTRODUCTION

Typically, the trade balance consists of two main components: exports and imports. Export refers to the process of selling domestic goods or commodities in the international market by transporting them out of the country. On the other hand, imports involve the entry of goods or commodities from foreign countries into the domestic market, including both goods and services. The impact of exports and imports on a country's economy is significant since they are crucial factors considered when calculating the gross domestic product (GDP) (Triyawan, A., & Novitasari, A. S, 2020).

A country exports because exports are a means to expand market penetration which will encourage increased production, economies of scale, efficiency, competitiveness, employment and economic growth. In addition, exports are also a means to generate foreign exchange. The foreign exchange can

then be used to increase investment, consumption, imports, or pay foreign debts. The relationship between exports and economic growth is very closely related. Exports are believed to be the locomotive of economic growth. So that increasing exports is pivotal, with the high rate of economic growth expected to be a solution to problems that often arise such as high unemployment, poverty and the swelling debt of other countries (Ratna Mutia,2015).

Export growth is recognized as a key determinant of economic production and employment growth. The idea of export expansion as the main determinant of economic growth has influenced many policy makers especially from developing countries and has received more attention as a result of the spectacular economic success by several East Asian countries. Previous studies have found mixed results on the impact of exports and imports on a country's economic growth (Triyawan, A., & Mutmainnah, M, 2021). Export growth in general increases economic growth through available foreign trade, production potential, and the volume of competition in the export market (Ramos,2001).

Exchange rate is a macroeconomic variable that also influences stock price volatility. Gross Domestic Product includes factors that affect changes in stock prices. Estimated GDP will determine the development of the economy. Gross Domestic Product (GDP) is derived from the value of consumer goods, excluding capital goods. When an economy experiences high inflation rates, it is often an indication of an overheated economic environment. This suggests that there is excessive demand for products, surpassing the supply capacity, leading to price increases. Elevated inflation levels can also erode the purchasing power of money, resulting in a decrease in its value (Surmaya Suci Kewal, 2012).

### **Theoretical Fremawork**

Gross Domestic Product (GDP) represents the total value of goods and services produced within a specific country during a given timeframe. This implies that when calculating GDP, the focus is on the outputs or outcomes in the form of goods and services within an economy. These products are generated through the use of inputs or production factors owned by both the citizens of the country and foreign nationals residing within its geographical boundaries. The calculation of GDP holds various benefits as outlined by Rahardja and Manurung, including: (1) evaluating the overall prosperity of a nation, (2) assessing the level of social welfare within a society, (3) reflecting the productivity level of a country, and (4) accounting for GDP and unrecorded economic activities that occur within the underground economy.

Furthermore, an exchange rate represents the ratio of one currency to another. It signifies the number of units of a specific currency required to acquire or purchase one or multiple units of another currency. According to Samuelson, the exchange rate is defined as "the price at which one unit of foreign currency is traded for domestic currency." Meanwhile, according to (Sawaldjo Puspoprantoro, 2004) the definition of the exchange rate is "The price at which a country's currency is exchanged for another country's currency is called the exchange rate."

The exchange rate of a country's currency or often referred to as the exchange rate, basically can be used as a benchmark for a country's economic condition. When the value of a currency experiences consistent and steady growth, it suggests that the country is enjoying a relatively positive and stable economic situation (Salvator, 1997), on the other hand, if the growth in the value of the currency is relatively less stable, it can indicate that the country can be categorized as a country with unstable economic conditions. The Asian financial crisis was caused by many factors, both non-economic and economic. Non-economic factors are more often considered the cause of fluctuations in the exchange rate against the dollar.

Inflation can be defined in various ways, but they all share common characteristics. According to Samuelson (2001), inflation refers to a situation where there is a general increase in prices for goods, services, and factors of production. This definition implies a decrease in the purchasing power of money, resulting in a decline in the real value of a country's currency. Another definition suggests that inflation occurs when there is an imbalance, specifically when aggregate demand exceeds aggregate supply. In this case, the general price level reflects the relationship between the flow of goods or services and the flow of money. If the flow of goods surpasses the flow of money, deflation occurs. Conversely, if the flow of money surpasses the flow of goods, the price level rises, leading to inflation (Agnes Sedianana, 2010).

Inflation refers to the ongoing and general upward movement of prices. It is not classified as inflation when the price of one or two goods rises alone, unless it leads to a broader increase in the prices of other goods ([www.bi.go.id](http://www.bi.go.id)). As stated by Nopirin (2000), the rate of price increase is not consistently uniform and can vary.

Exports serve as a significant indicator for determining the level of economic growth within a country (Dwi Siswaningsih, 2016). Export refers to the process of trading goods from within the borders of a country to outside its customs area while adhering to relevant regulations (Andi Feriyanto, 2015). It involves the act of moving goods out of the customs area, which encompasses land areas, bodies of water, airspace, and specific locations within the exclusive economic zone (Rezki Selfiana N, 2014).

From the several definitions of export above, the author can conclude that export is an activity of sending goods out of the Indonesian customs area to enter the customs area of another country with certain rules regarding goods and their transportation system. Impor

Imports are commonly understood as the process of bringing goods from one country (foreign) into the customs area of another country. This transaction involves the participation of two countries and encompasses varying interests, as well as distinct laws and regulations. One country serves as the exporter (supplier) while the other functions as the importer (recipient) country (Andi Susilo, 2013).

Imports can be understood as the act of purchasing goods from foreign countries while adhering to government regulations. These goods are acquired by using foreign currencies as the mode of payment. In the implementation of imports, there are various intermediaries, seller representatives, agents, wholesale

buyers, sellers and distributors who are tasked with delivering merchandise to the domestic market (Astuti Purnamawati and Sri Fatmawati, 2013). The concept of import comes from the existence of activities in international trade, related to the sale and purchase of goods carried out across countries. Import is an activity.

### Research Method

This research uses a quantitative approach. As stated by Sugiono (2016), the quantitative method is a scientific approach that considers reality as something that can be categorized, tangible, observable, and measurable. It involves studying the causal relationship between variables, and the research data collected are in numerical form. In this particular study, the main objective is to elucidate the connection between GDP (dependent variable) and independent variables such as Inflation, Exchange, Exports, and Imports in Qatar. Time series data from the years 2002 to 2021 are utilized for analysis and interpretation. The type of data used in this research is secondary data. The data is obtained from the World Bank.

### Analysis and Discussion

This data analysis used the Multiple Linear Regression method, the joint regression coefficient test (F test) and the partial regression coefficient test (t test). This analysis is a regression where the dependent variable (Y) is related or explained by more than one variable (X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, ..., X<sub>4</sub>) however, it still shows a linear relations diagram. The formula of this research is as follows:

$$Y' = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Keterangan:

Y' = GDP

a = Constant

$\beta_1 \beta_2 \beta_3 \beta_4$  = Regression Coefficient

X<sub>1</sub> = Inflation

X<sub>2</sub> = Exchange Rate

X<sub>3</sub> = Export

X<sub>4</sub> = Import

And the results of research through SPSS are as follows:

$$Y' = 6.651 + 0.082 X_1 + 0.241 X_2 + 0.488 X_3 + (-0.144) X_4.$$

$$Y' = 6.651 + 0.082 X_1 + 0.241 X_2 + 0.488 X_3 - 0.144 X_4.$$

### T Test – Regression coefficient Test

Based on the table, the calculated F is 16,825. In determining the F table, you can use 95% confidence, = 5%, df 1 (number of variables – 1) and df 2 (n – k – 1).

Explanation:

n = the number of cases.

k = the number of independent variable.

Then, the result of F table is:

$$Df\ 1 = 5 - 1 = 4$$

$$Df\ 2 = 21 - 4 - 1 = 16$$

F table is 3.006917 (Can be proven in Ms Excel by means of an empty cell type =finv(0.05,4,14) then enter). Because F count > F table (16,825>3,006), then  $H_0$  is rejected, meaning that there is a significant influence between Exchange Rate, Inflation, Exports and Imports together on GDP. So from this case it can be concluded that the Inflation, Export and Import Rates together have a positive effect on GDP in the country of Qatar.

#### **T Test – Regression coefficient Test**

Distribution table = 5% : 2 = 2.5% with degrees of freedom (df)  $n - k - 1$  or  $21 - 4 - 1 = 16$ . We take the degree of significance 2.5% = 0.025. The results obtained for the t table are 2.119 (Can be proven in Ms Excel with an empty cell type =tinv(0.05,16) then enter).

Because the value of t test (Exchange rate) > t table (6,804 > 2,119) then  $H_0$  is rejected, meaning that partially there is a significant influence between the exchange rate and GDP in Qatar. So, from this case it can be concluded that partially the exchange rate has a positive effect on GDP in Qatar.

The value of t count (Inflation) < t table (1,294 < 2,119) then  $H_0$  is accepted, meaning that partially there is no significant effect between inflation and GDP in Qatar. So, from this case it is concluded that partially Inflation has no effect on GDP in Qatar.

The value of t count (Exports) < t table (1.265 < 2.119) then  $H_0$  is accepted, meaning that partially there is no significant effect between exports and GDP in Qatar. So, from this case it is concluded that partially exports have no effect on GDP in Qatar.

The value of t count (Imports) < t table (-0.245 < 2.119) then  $H_0$  is accepted, meaning that it partially has no significant effect between imports and GDP in Qatar. So, from this case it is concluded that partially imports do not have a positive effect on GDP in Qatar.

#### **Conclusion**

Based on the analysis of data and tested research results, the following hypotheses have been formulated:

1. The findings of this study indicate that the combined factors of Exchange, Inflation, Exports, and Imports collectively impact the GDP of Qatar. This implies that a positive influence of the exchange rate, inflation, exports, and imports will lead to an increase in GDP, whereas a negative impact will result in a decline in GDP.
2. The exchange rate exhibits a significant and positive partial effect on Qatar's GDP. Consequently, an increase in the exchange rate corresponds to an increase in economic growth.
3. In terms of inflation, there is no significant effect on the level of GDP in Qatar. Hence, inflation does not impact the GDP of the country.
4. Similarly, the level of exports does not significantly affect Qatar's GDP. Therefore, the level of exports does not have a substantial influence on the country's GDP.

5. The study reveals no significant effect of imports on Qatar's GDP. Thus, when the level of imports increases in Qatar, it does not have an impact on the country's GDP or economic growth.

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