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**| RESEARCH ARTICLE**

## **Studying the Impact of Foreign Trade on Economic Growth of Afghanistan during 2003-2021**

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**| ABSTRACT**

In this research, the effects of import and export in foreign trade on the economic growth of Afghanistan during the years 2003 to 2021 have been studied. The import and export data were used from official reports of the Ministry of Trade and Industry Afghanistan, and the information related to economic growth was obtained from the World Bank website. The methodology is a multivariate regression model, which is used to estimate the parameters of the model by Ordinary Least Squares methods which were impossible; the problem of their unit root was solved by difference. Results show that there is no significant relationship between Afghanistan's economic growth and foreign trade, and the reason for the lack of correlation between the variables of foreign trade and economic growth may be the low volume of imports and exports of the Afghanistan economy, and on the other hand, economic growth of Afghanistan have the high dependence of foreign aids in the last 18 years.

**| KEYWORDS**

World trade, export, import, economics growth, Afghanistan.

**| ARTICLE INFORMATION**

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### **1. Introduction**

#### **1.1 Problem Statement**

Most economists believe that trade is the engine of development in today's societies. They claim that international trade makes it possible to take advantage of potential economic capabilities and shows clear signs of investing in profitable and competitive economic projects in the global arena. Also, international trade or economic openness affects the growth rate of the economy through access to foreign markets, technology and resources. Considering the key role of trade in guiding economic development programs and its contribution to the process of economic globalization, it is necessary to examine the effect of international trade on economic growth (Farhadi, 2006).

During the last 30 years, the world has experienced considerable changes in economic activity and in the nature of the global economy. Nations have become closer to each other through international trade and financial affairs. The international monetary system has changed, the great creditor country of the United States has emerged as the world's largest debtor country, and many developing countries are facing continuous development problems and a large amount of external debt (Estrada, 2004).

With the development of trade relations between countries, various economic theories have been proposed, aiming to design mechanisms to maximize the welfare and interests of the nations participating in the world trade system. In the 19th century AD, the theory of Adam Smith and Ricardo was proposed based on the absolute and relative advantages of countries' production resources, which over time were considered in connection with the definition and regulation of international trade relations (Atkinson, 1996).

The years after the Second World War are considered a significant point for world trade, and the majority of the industrialized countries of the world became interested in importing and exporting, that is, international trading of goods and services on a global level. The majority of different economic theories in the discussion of international trade are that the countries that participate in world trade profit directly and indirectly from the benefits of world trade through positive trade effects (Abrishmi et al, 2010). In addition, in order to achieve the goals of global free trade based on economic competition, after many ups and downs, agreements under the title of General Agreement on Tariffs and Trade (GATT) were signed in 1947 among the number of countries, and the scope of this agreement is in terms of the volume of trade and the number of contracting countries, and members of this organization increased from 108 members in 1994 to 144 members in 2001 (Bhagwat et al, 1998). Economic statistics and information show that since the 1980s, the volume of world trade has been expanding rapidly, and at the same time, most developing countries are realized that distancing international trade creates inefficiency. A number of developing countries concluded that by applying outward-looking policies and through integration in the world markets, they could increase the allocation of resources (World Bank, 1996). This has always been a basic question for developing countries, whether the trade liberalization process has been able to have a positive effect? The summary review of the literature on trade liberalization and economic growth emphasizes an important point that there is still no clear and definitive answer in this regard. Some studies indicate the existence of a positive relationship between several criteria of trade liberalization and economic growth (Azimi, 2001).

The main goal of this research is to explore the effect of foreign trade (imports and exports) on Afghanistan's economic growth. For this purpose, after the introduction in the second part, the theoretical foundations of trade and growth have been examined and presented. In the third part, the background results of the research are reviewed. The specification of the model is examined in the fifth part, and the sixth part is dedicated to presenting the results and suggestions.

## 2. Theoretical Functions

In economic literature, it is emphasized that the relationship between international trade and growth is mutual. Regarding the effect of economic growth on international trade, there are two basic issues: A) the effect of growth on the exchange rate, and B) the effect of growth - through the effect of international trade on economic welfare (Shun, 1993).

It is often assumed for the theoretical analysis of the effects of economic growth on international trade that each country has specific and unchangeable capabilities of production factors and technology (it has a definite production possibilities curve) and also, the tastes of the people are specific and unchangeable (therefore, have a specific indifference map), now if the capabilities of a country change in terms of production factors or technology improves, these changes transfer the production capabilities curve to shift. The people's taste changes also give a new map of indifference. All these changes affect the exchange relationship and trade volume, but the limitation depend on the amount and type of changes (Farhadi, 2006).

However, the theoretical aspect of the effects of trade on economic growth is less developed and generally debated compared to the effects of growth on trade. The effects of international trade on economic growth can be examined from the three dimensions of production factors, the effect on the market, and the reallocation of resources. From the analysis of the effects of international trade on the factors of production and the supply quantities of these factors, two important policies can be deduced: first, international trade wants to eliminate the price differences of production factors that may exist between countries (Tawfiqi & Hamid, 2002).

In this way, free international trade may act as a complete substitute for the international mobility of production factors. Second, international trade increases the ratios of domestic production factors among countries. Even as a result of international trade, the factor of production may become relatively more abundant. The first article refers to the mobility of production factors between countries, and the second is related to changes in the number of production factors within a country. The recent changes in the amount of the factor of production are due to changes in its price, which is the result of international trade. The change in the price of production factors implies that the distribution of income will change within each country. Some production factors will receive more rewards, although it will cause a decrease in the income of others, and the amount of improvement in trade growth depends on the degree of the country's reliance on foreign trade (Jafari et al, 2013). A historical view of international trade and its stages of development can explain the foundations of foreign trade on economic growth going back to the ideas of the Mercantilisms in the 16th century. In the view of this school, a positive trade balance causes prosperity and growth in economics. At the beginning of the 18th century, Federalism believed that foreign trade was useful when it could keep high the price of agricultural goods (Shun, 1993).

The classics were in favor of the positive effect of trade on economic growth. They emphasized and believed that the development of international trade leads to the increase of expertise and efficiency in the export sectors and finally causes the reallocation of resources from the commercial sectors, which this phenomenon can help the growth of production (Farjadi & Ali, 1998).

Since the new Classical economics, the analysis and justification of comparative advantage were mainly based on the determination and comparison of the opportunity cost of producing goods and services. In the theory of new classics, if the production functions are completely similar in the countries, the production possibilities line of the two countries becomes parallel to each other. The exchange rate of goods will be equal for each other in two countries, and there will be no motivation for business. To overcome the shortcomings of the classical theory, Heckscher and Ohlin's theory, relative abundance was proposed in the first half of the 20th century and justified the benefits of trade, even if two countries have similar production functions (Mahdavi & Javadi, 2006).

Classical and New Classical economists did not focus on the dynamic aspects of the business. But to the extent they consider the effects of trade on growth and development, they see no conflict between a country's compliance with its comparative advantage. In general, Classical economists considered a comparative advantage as the determining factor of the business model (Moazizi et al, 2008).

The transfer of technology from abroad reduces the surplus ratio of capital to the product. As long as the economic growth depends on the rate of capital concentration and investment productivity, a small amount of excess capital to product ratio will accelerate the overall growth rate of the economy. In Schumpeter's analysis of development, new events and opportunities are the main factors in improving growth. For example: introducing new products, introducing a new production method, accessing a new market, accessing a new source of supply for raw materials or semi-finished goods, and establishing a new organization of the industry (Azimi, 2001).

By enabling the above conditions, free trade frees the economy from the trap of slow growth and leads to a higher level of growth (Augustin, 1990). He explains Japan's economic growth after the Meiji Restoration with the influence of trade in introducing new products and techniques and mentions trade as a "highway of learning" (Jalalinain & Mohammadi, 1997). He pointed out the "diffusion effects" caused by trade between countries and that these effects are not only created in trade between developed countries but also spread from developed countries to developing countries (Najibzadah et al, 2012).

Discussing trades and effect points of capital imports on growth through the introduction of "advanced technology". Believes in the effects of international trade on growth by providing a larger scale of intermediary institutions that enable more "research and development" and "on-the-job training" activities. The new theories of international trade have been developed by economists such as: (Şahinpour & Khosh Behavat, 2018) since the mid-1970s; from the combination of the two ideas of economies of scale or increased efficiency compared to the scale and the consequences of industrial organization, which are the result of games and competitions. The companies were with other actors.

Based on the theories of "integration" and "globalization" in the writings and new theories of international trade also opened their place and were paid attention to. The growth of international trade, technological advances, foreign direct investment, financial exchanges such as lending and borrowing, labor migration and international institutions have been among the effective factors in the emergence and acceleration of the integration and globalization of the economy (Ranani, 2009).

Along with defending the positive effects of international trade on economic growth, opposing opinions have also been raised. The limited growth of global demand for primary exports, the deterioration of the terms of trade for the primary products of developing countries, the re-emergence of new protectionism against the export of industrial and agricultural products of less developed countries, the emergence of "economic duality" due to trade, strengthening and the intensification of "imitation effect" and "demonstration effect" have been introduced as disadvantages of international trade development. The important point is that during the last three decades and simultaneously with the expansion of trade relations between countries and the conditions of the transformation of the world into global villages, the number of supporters of the positive relationship between economic growth and foreign trade has greatly increased and the number of opponents has decreased (Edwards, 1993).

In short, the concept of market development, division of labor, improvement of workers' skills, and workers' invention and innovation, especially the opening theory for surplus and economies of scale in the justification of trade by Adam Smith (1776), the cornerstone of new trade theories and Growth patterns. These theories and concepts were followed by other economists (after Adam Smith). And new trade theories and endogenous growth models have been developed since the mid-1970s based on the effects of technology, increasing returns to scale, and imperfect competition.

### **3. Literature Reviews**

Ranani (2009) studied the effects of economic variables on the export of traditional Iranian goods during the years 1365-1393. In their research, they used Johansen's vector Auto Regression Model. The results of their research show that there is a positive and significant relationship between macroeconomic variables and the export of agricultural and traditional products in Iran (Ranani, 2009).

In a study, Ezati and Younes examined the direct and indirect effects of sanctions on the economic growth of Iran, emphasizing the foreign sector of the economy during the time series of 1356-1391. The built model is based on internal growth models and has been analyzed with 2SLS econometric method. The result showed that the sanctions did not have a direct effect on the economic growth of Iran, and most of the sanctions did not have an indirect effect on the economy either (Ezati & Younes, 2015).

Kamisani and Haji conducted research on "export in productivity and economic growth between 1338-1389", and they used two models. 1- Briooosh-Godfrey statistics model and Briooosh-Pagan-Godfrey statistics model. The research findings of both models showed that there is a positive and significant relationship between exports and economic growth (Kamisani & Haji, 2013).

In another study, Moazizi. et al. 2008 investigated the effect of agricultural exports on industrial exports and economic growth in Iran for the years 1348-1381. In this research, the econometric model framework (VAR) is used, relying on the shock reaction functions and using the organization strategy, under the Cholsky analysis method. The results of this study show that the effect of agricultural product export growth on GDP growth is negative in the short term and long term (Moazizi et al, 2008).

Armen. et al. (2009) investigated the "triangle of financial development, economic growth and foreign trade in Iran during 1340-1385". In their research, they used the auto-regression model with distribution breaks. And to examine the long-term relationship between the variables, the Granger Causality Model has been used. The results of the causal models indicate the confirmation of the hypothesis on demand chasing in the short term and the hypothesis of long-term export growth. Also, the existence of a one-way causal relationship between financial development to imports in the long term has been confirmed (Armen et al, 2009).

Najibzadah and his colleagues conducted research with the aim of investigating the effects of foreign trade and foreign direct investment on the economic growth of member countries of the Islamic Conference. The study is based on Bhagwati's model of economic growth affected by foreign direct investment under business strategies in the period of 2000-2012. According to the obtained sources, the variable of openness in the economy plays a positive and significant role in the impact of foreign direct investment on the exports of these countries (Najibzadah et al, 2012).

Frankel et al. (1999) investigated the cause and effect relationships between economic growth, export growth and the growth of production factors (labor and capital), in the form of an auto-regression model, for the Iranian economy in the 1338-1372-time series. In order to determine the cause and effect relationship between the variables and the model, first, the tests to prove the adequacy are proved. And tests show that export growth is the cause of economic growth. And there is an indirect relationship between the variables of capital growth and economic growth, as well as between the growth of production factors (capital growth and labor force growth) (Frankel & Romer, 1999).

Nikumram et al., (2017) studied the effect of foreign trade and innovation through the acquisition of foreign technology on the economic growth of Iran using the empirical regression model of economic growth based on the theoretical models developed during the years 1360-1389. The results show that the factors of net capital stock and innovation of intellectual property rights have a positive effect, and the factor of foreign direct investment has a negative effect on the country's economic growth. Also, the import of foreign technology does not play an important role in the country's economic growth (Nikumram et al, 2017).

Tawfiqi and his partner estimated in a study between export growth and economic growth in Iran in two separate models. The first model has been tested for the period of 1338-1378 using annual statistics, and the second model for the period of 1373-1379 using seasonal statistics. For the test, he used the autocorrelation model. The results in both models indicate that non-oil exports and exports of technical and engineering services have a positive effect on economic growth (Tawfiqi & Hamid, 2002).

Tayibi et al, (2009) investigated the relationship between the influence of foreign trade and human capital on the economic growth among countries of the Islamic Organization Conference during the period of 2003-1980 using pooling data. The results of these estimations showed that the growth of human capital had positive and significant effects on the economic growth of the Islamic Organization Conference (Tayibi et al, 2009).

The effects of foreign trade on Iran's economic growth have been done by using the ARDL method. The results of this research indicate that the equilibrium and long-term relationship between the open economy (trade) and the gross domestic product are confirmed; also, the estimation of the model in different states by using the e Central Bank data for the period of (1345-1380) showed that international trade and open economy has a positive effect on the growth of GDP per capita (Farhadi, 2006).

Abrishmi et al. (2010) research were conducted under the title of examining the relationship between foreign trade and economic growth in developing countries. It has been investigated the effect of macro-liberalization policies from the perspective of the international economy on the economic growth of developing countries. To carry out this research, a sample of 24 countries was

used during the period of (1991-2004) based on the dynamic panel method and generalized moments. The findings indicate the positive and insignificant effect of trade growth rate on economic growth. In addition, trade barriers such as tariffs only cause a slight decrease in the economic growth rate (Abrishmi et al, 2010).

The effects of trade in agricultural products on the economic growth of Iran, which has been investigated by using the error correction method (ECM), it's showing the impact of agricultural exports and imports on the economic growth of Iran for the periods (1360 to 1390). The results showed that the growth of agricultural exports has a direct effect on economic growth, which means that a one percent increase in agricultural exports is due to a 0.14 percent increase in economic growth (Jafari et al, 2013).

Imamvardi & Sharifi's ( 2011) research was carried out under the title of examining the relationship between foreign trade and the open economy on the economic growth of Iran by using the Error Correction Model (VECM and Reaction Function (IRF). The results showed that there is a long-term positive relationship between the degree of the open economy the volume of imports and exports compared to the total gross domestic product) with economic growth. Also, the results show that the estimated coefficient of the average import tariff on economic growth in the model is negative; in other words, the reduction of the average import tariff causes. In other words, the reduction of trade restrictions and import tariffs has led to greater economic growth, which is consistent with the related theory (Imamvardi & Sharifi, 2011).

Mahdavi & Javadi's (2006) research examined under the experimental test the relationship between foreign trade and economic growth in Iran by using Granger Econometric Model and the Hesiav model, which are parametric models. The results of the Granger and Hesiav models confirm the effect of foreign trade growth on economic growth, and this positive relationship is due to the positive effect of import growth on the growth of total added value in industries, mines, and agriculture, and the positive effect of oil export growth on the growth of added value. It is the service sector (Mahdavi & Javadi, 2006).

The research titled investigating the impact of export and import of capital-intermediate goods on added value in Iranian industries during the period of 1380-1393 was done. For this purpose, the dependent form of Cobb-Douglas was used, in which production is a function of variables of labor force, capital stock, export and import of capital-intermediate goods, and the model was used in the econometric method of panel data for 139 industrial groups have been estimated. The results showed there are the total number of employees, capital stock, export and import of capital-intermediate goods have positive and significant effects on the added value of industries (Şahinpour & Khosh Behavat, 2018).

#### **4. Research Methodology**

This research has been conducted using a mixed-methods approach, combining both qualitative and quantitative data. The purpose of this research is to answer a specific question using a descriptive method. Data was collected using library-based research, secondary sources, and causal and correlational analysis.

##### **4.1 Data Collection Method**

The qualitative information of this research was collected from books, articles, magazines, internet sites and legal documents. Quantitative data in this research, which is related to the time period (2003-2021) in 18 years, were collected from the World Bank and the Ministry of Trade and Industry.

##### **4.2 Research Tools**

Eviews version 26 was for data analysis, Microsoft Word for text writing, and Microsoft Excel was for drawing graphs.

##### **4.3 Conceptual Model of Research**

In this research, we have a regression model for variables (Economic Growth Rate, Export and Import). This model examined the effects of foreign trade on economic growth in the form of an economic model. This study uses a simple time series model that was derived through the OLS method and is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon_t \quad (1)$$

Here (Y) represents the economic growth rate in Afghanistan,

(X<sub>1</sub>) Represents exports.

(X<sub>2</sub>) Represents import

(ε) Represents the error term.

(β<sub>2</sub>, β<sub>1</sub> and β<sub>0</sub>) parameters of the model

#### 4.4 Data Analysis Method

In this research, the objective is to investigate the relationship between foreign trade and economic growth; at the beginning of this, it is important to evaluate the model after choosing the appropriate experimental model by using computer tools of Eviews version 26 for the research hypotheses tested.

In this regard, after collecting the data and checking the variables for significance by using the Unit Root test and the Augmented Dickey-Fuller test, the Ordinary Least Square (OLS) method is used to estimate the Regression model.

#### 4.5 Research Scope

##### A. Subject Area

This research was written on the subject of macroeconomics (economic growth and foreign trade).

##### B. Temporal Domain

The time series of this research covers the period (2003 to 2021).

##### C. Spatial Territory

The geographical area of this research is Afghanistan.

#### 5. Construction of Variables

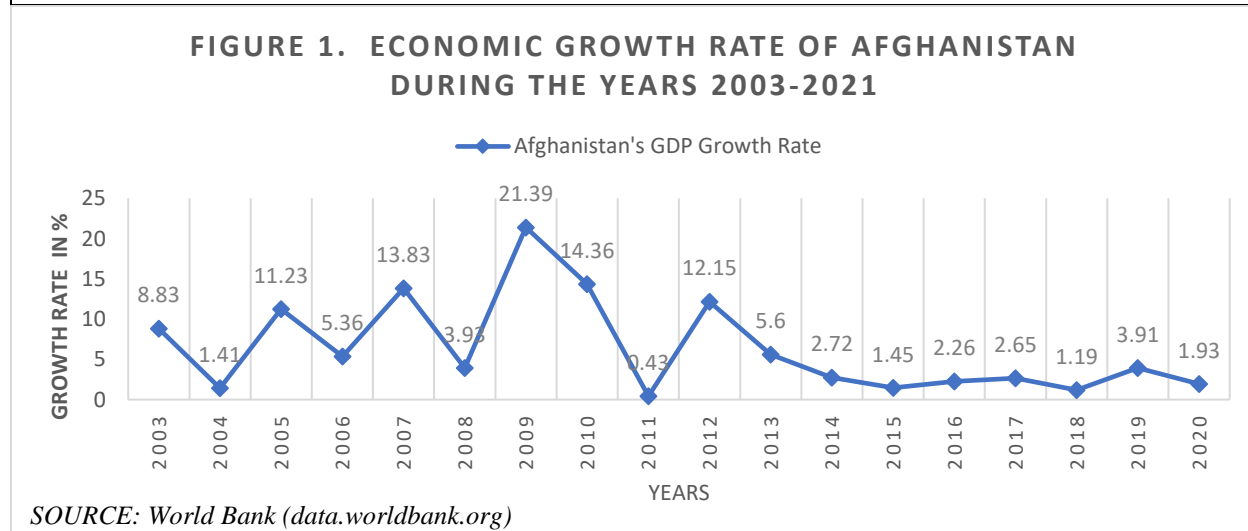
The variables in this research are Afghanistan's export, import and economic growth. All variables are taken in their natural form. The explanation of the variables is as follows.

##### 5.1 Economic Growth

The increase in the country's production in a given year compared to its value in the base year is called economic growth. In other words, quantitative economic changes in society are called economic growth.

Table 1. Economic Growth Rate of Afghanistan During the Years 2003-2021	
Year	Growth Rate
2003	8.83
2004	1.41
2005	11.23
2006	5.36
2007	13.83
2008	3.93
2009	21.39
2010	14.36
2011	0.43
2012	12.15
2013	5.6
2014	2.72
2015	1.45
2016	2.26
2017	2.65
2018	1.19
2019	3.91
2020	1.93
2021	8.83

Source: World Bank



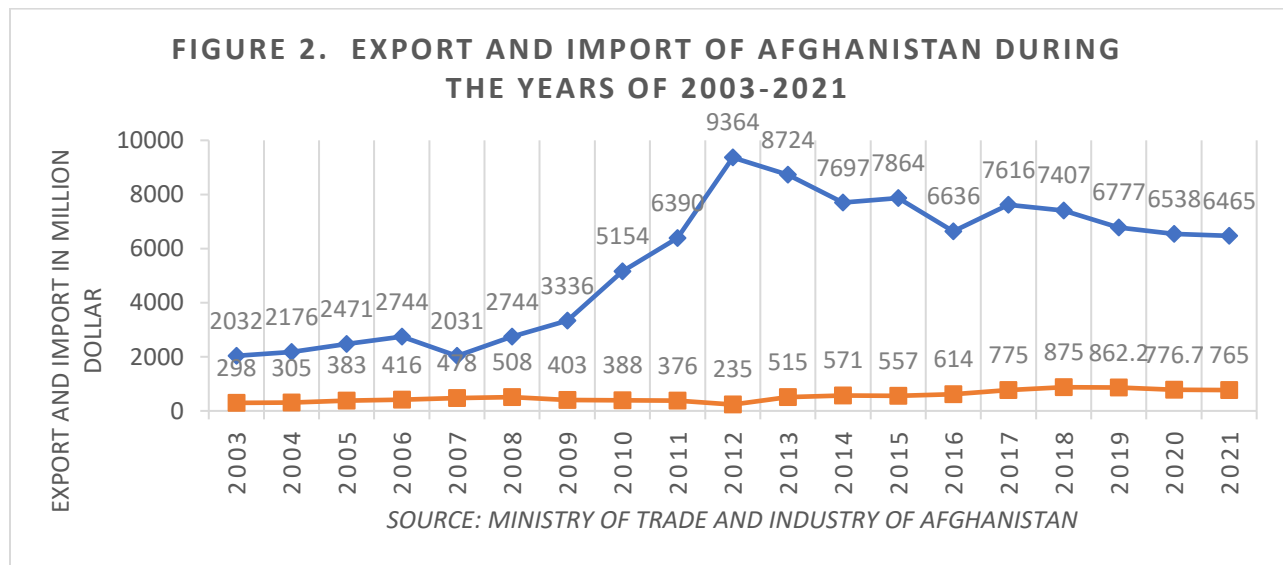
**5.2 Export and Import**

Exporting means communicating and working with professional markets on the other side of the borders; exporting is the starting point for communicating with others. Export is for the economic growth and development of the country, which is obtained from the sale of products or services to other countries to earn foreign currency and helps to create a trade economic balance. Despite the regulations established in the World Trade Organization, which is based on the freedom of commercial exchanges, foreign trade is never free without planning and control of countries in order to protect their interests, monitor and control the process of importing various goods by using of various tools; they manage their business in a favorable way. Importing VS exporting is an incentive method for exporting, but the feedback should be considered and investigated.

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
<b>Export</b>	6465	6538	6777	7407	7616	6636	7864	7697	8724	9364	6390	5154	3336	2744	2031	2744	2471	2176	2032
<b>Import</b>	765	776.7	862.2	875	775	614	557	571	515	235	376	388	403	508	478	416	383	305	298

Source: Ministry of Trade and Industry of Afghanistan

Above it shows the export and import of Afghanistan, which shows an upward and increasing trend between the years 2003-2006, 2007-2012 and 2016-2017, although the rest of the years shows a downward trend. But the import shows an upward trend except for the years 2009-2012 and 2018-2021.



Also, the above graph shows the import and export of Afghanistan during the years 2003-2021; based on the above graph, it can be seen that it shows a downward trend during the years 2006-2007, 2012-2014, 2015-2016, and 2017 to 2021. The remaining years show an upward trend.

**6. Data Analysis**

**6.1 Unit Root Test for Validity of Data**

According to the econometrics literature, to estimate the model, first, the significance test of the variables should be performed. If non-significant variables are used in the evaluation of the model, despite the lack of a relationship between the variables, the

coefficient of determination obtained is high. As a result, false assumptions can be made (countering spurious regressions). The augmented Dickey-Fuller test is used to check the variables for significance. Regarding nonstationary variables, most of the variables can be converted to stationarity by the differentiation method.

The unit root test is used using Eviews 9. There are several tests in econometrics to test for unit root, and we used the Augmented Dickey-Fuller (ADF) test method here, and there are 2 possible ways to know about the stationary ADF test.

### 6.2 Stationarity Analysis of Economic Growth Rate

To test the unit root problem, first, arrange our hypotheses and then apply the Augmented Dickey-Fuller unit root tests by using the Eviews program and finally analyze the results and decide on the hypotheses. We will take The hypotheses of the Augmented Dickey-Fuller unit root test are as follows:

Null Hypothesis (H0): The economic growth rate has a unit root (The Economic Growth rate is Nonstationary).

Alternative Hypothesis (H1): Economic growth rate does not have a unit root (Economic Growth rate is Stationary).

<b>Table 3. The results of Unit Root test for Economic Growth Rate</b>		
<b>Test for Unit Root in Level</b>		
<b>P- Value</b>	<b>0.0094</b>	
<b>Null Hypothesis (H0)</b>	Economic Growth rate has a unit root (The Economic Growth rate data is nonstationary).	<b>Accepted</b>
<b>Alternative Hypothesis (H1)</b>	Economic Growth rate has not a unit root (The Economic Growth rate data is stationary).	<b>Rejected</b>
<i>Source: Researchers Findings.</i>		

According to Table 3, the results of the Augmented Dickey-Fuller (ADF) test show that the economic growth rate variable is significant at the 95% confidence level because the P-Value is less than 0.05 at the 95% confidence level, so the null hypothesis is rejected and the alternative hypothesis is accepted, which means that the economic growth rate is significant.

### 6.3 Stationarity Analysis of Export and Import

To test the unit root problem, we first arrange our hypotheses and then apply the Augmented Dickey-Fuller unit root tests by using the program Eviews and finally analyze the results and take decisions for hypotheses.

Null Hypothesis (H0): The Export and Import have a unit root (The Export and Import is Nonstationary).

Alternative Hypothesis (H1): Export and Import does not have a unit root (Export and Import is Stationary).

<b>Table 4. The results of Unit Root test for Export</b>		
<b>Test for Unit Root in Level</b>		
<b>P- Value</b>	<b>0.5516</b>	
<b>Null Hypothesis (H0)</b>	Export has a unit root (The Export data is nonstationary).	<b>Accepted</b>
<b>Alternative Hypothesis (H1)</b>	Export has not a unit root (The Export data is stationary).	<b>Rejected</b>
<b>Test for Unit Root in 1st Difference</b>		
<b>P- Value</b>	<b>0.0516</b>	
<b>Null Hypothesis (H0)</b>	Export has a unit root (The Export data is nonstationary).	<b>Accepted</b>
<b>Alternative Hypothesis (H1)</b>	Export has not a unit root (The Export data is stationary).	<b>Rejected</b>
<b>Test for Unit Root in 2nd Difference</b>		
<b>P- Value</b>	<b>0.01207</b>	
<b>Null Hypothesis (H0)</b>	Export has a unit root (The Export data is nonstationary).	<b>Rejected</b>
<b>Alternative Hypothesis (H1)</b>	Export has not a unit root (The Export data is stationary).	<b>Accepted</b>
<i>Source: Researchers Findings.</i>		



Results of the Augmented Dickey-Fuller (ADF) test show that the export variable is insignificant at the 95% confidence level, the P-value is greater than 0.05 at the 95% confidence level, so the Null Hypothesis is confirmed, and the Alternative Hypothesis is rejected, which means that export is nonstationary. After the first difference, the results of (ADF) test show that the export variable is insignificant at the 95% confidence level, P-Value is greater than 0.05 at the 95% confidence level, so the null hypothesis is confirmed and the hypothesis. The alternative is rejected, which means that export is nonstationary. But after the second difference, the results of the (ADF) test show that the export variable is significant at the 95% confidence level, P-Value is less than 0.05 at the 95% confidence level, so the null hypothesis is rejected, and the alternative hypothesis is confirmed, which means that exports are significant and stationery.

**Table 5. The results of Unit Root test for Import**

<b>Test for Unit Root in Level</b>		
<b>P- Value</b>	<b>0.7293</b>	
<b>Null Hypothesis (H0)</b>	Import has a unit root (The Import data is nonstationary).	<b>Accepted</b>
<b>Alternative Hypothesis (H1)</b>	Import has not a unit root (The Import data is stationary).	<b>Rejected</b>
<b>Test for Unit Root in 1st Difference</b>		
<b>P- Value</b>	<b>0.0171</b>	
<b>Null Hypothesis (H0)</b>	Import has a unit root (The Import data is nonstationary).	<b>Rejected</b>
<b>Alternative Hypothesis (H1)</b>	Import has not a unit root (The Import data is stationary).	<b>Accepted</b>
<i>Source: Researchers Findings.</i>		

According to the result of the Augmented Dickey-Fuller (ADF) test, the import variable is insignificant at the 95% confidence level, the P-value is greater than 0.05 at the 95% confidence level, so the null hypothesis is confirmed, and the alternative hypothesis is rejected. It means the imports are prohibited. And after the first difference, the results of (ADF) showed that the import variable is insignificant at the 95% confidence level, the P-Value at the 95% confidence level is less than 0.05, so the H0 is rejected, and the H1 is confirmed by imports in a stationary and significant level.

**6.4 Ordinary Least Squares (OLS) Regression Analysis Model**

After conducting the Dickey-Fuller unit root tests, we must conclude the primary data and the first difference of the three indicators non-significant at the 95% confidence level, and the unit root problem happened. The unit root problem has been removed by taking the second difference of these variables; finally, by using the Ordinary Least Squares method, the model estimation and the model parameters will be discussed.

Null Hypothesis (H0): There is no significant relationship between Foreign Trade variables and Economic Growth.

Alternative Hypothesis (H1): There is a significant relationship b/w Foreign Trade variables and Economic Growth.

**Table 6. The Results of Regression Equation Estimation and Parameters of Model**

Variables	Coefficients	P. Value	Hypothesis	R-squared
$\beta_0$ (C) Intercept	6.535	0.0006		0.1362
<b>Import</b>	0.000307	0.8284	Null Hypothesis: Accepted	
<b>Export</b>	0.01506	0.1727	Null Hypothesis: Accepted	
<b>Econometric Model</b>				
$GDP_{Growth} = 6.535 + 0.00031 * import - 0.0151 * export + \epsilon$ $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$				
<b>Definition of Model Variables</b>				
Export = (X <sub>1</sub> )				

$$\begin{aligned} \text{Import} &= (X_2) \\ \text{GDP Growth} &= (Y) \\ \text{Parameters} &= \beta_0, \beta_1, \beta_2 \\ \text{Error Term} &= \epsilon \end{aligned}$$

Source: Researchers Findings.

According to the results of table (6), the P-Value for export and import variables is more than 0.05, the null hypothesis (H0) is accepted, and the alternative hypothesis (H1) is rejected, which means there is no significant relationship between export and import with economic growth of Afghanistan. Therefore, we conclude that the import and export variables have not affected the economic growth of Afghanistan.

R-squared is equal to (0.1362), which indicates the total effects of export and import on Afghanistan's economic growth. That is, 13.62% of changes in Afghanistan's economic growth (dependent variable) are caused by exports and imports (independent variables), and 86.38% of changes in economic growth are caused by other factors.  $\beta_0$  represents the value of the dependent variable without the effects of independent variables, which in the above model ( $\beta_0=6.535$ ) indicates economic growth (the value of the dependent variable) without the effects of foreign trade (independent variables); if we remove the effects of foreign trade, the economic growth will be 6.535%. The coefficients of the model (GDP growth = 6.535 + 0.00031\*import - 0.0151\*export + $\epsilon$ ) show that with the improvement and deterioration of one unit in world trade, economic growth will decrease and increase by several units. For example, the above model shows that with an increase of one unit in imports, economic growth will increase by 0.0003 units, and with an increase of one unit in exports, economic growth will decrease by 0.0151 units (due to the inverse relationship).

## 7. Conclusion

In recent decades, all-round efforts have been made by the majority of countries to access global markets; Correct economic policies, especially commercial policies, play an essential role in accessing global markets. On the other hand, economic growth is one of the important and fundamental goals of macroeconomics. There is almost a general consensus that economic growth is an essential factor in eliminating poverty and promoting economic development. There are many theories to accelerate economic growth through the improvement of foreign trade and access to global markets, and these theories make foreign trade important as a stimulating factor for economic growth.

On the other hand, getting rid of geographical borders and moving towards an open and global economy is inevitable. But in developing countries, this path is passed at a slower speed. Considering the urgent need in this field, the governments of these countries should speed up this movement by adopting appropriate measures and policies. The free movement of manpower and capital across the geographical borders of countries, the removal of tariff and non-tariff barriers for free trade and the formation of suitable import and export policies, paying attention to the discussion of information technology, access of industries to today's technologies, competition between manufacturers and service providers are the country seems necessary.

Considering the importance of foreign trade and Afghanistan's urgent need for economic growth and the relationship between these two economic phenomena, it made us study the effects of global trade with import and export variables on Afghanistan's economic growth.

In this research, the Ordinary Least Squares method has been used to estimate the parameters of the model, and the information includes the time series of 2003 to 2021. It includes three macroeconomic variables, export and import, as representatives of foreign trade and the growth rate of the economy. The significance of the data was tested by using the Augmented Dickey-Fuller test, and non-significant information was converted to meaningful data by differentiation. The research results show that there is no significant relationship between economic growth and the volume of imports and exports in Afghanistan. One of the main reasons for the lack of correlation between foreign trade variables and economic growth in Afghanistan is Afghanistan's high dependence on foreign aid and the low volume of exports.

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