T.C.
TOKAT GAZİOSMANPAŞA UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF ECONOMICS

THE DEVELOPMENT OF FOREIGN TRADE BETWEEN TURKIYE AND IRAQ AND ITS EFFECT ON NATIONAL INCOME

Master Thesis

Prepared by
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Advisor
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TOKAT - 2023

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SCIENTIFIC ETHICS PAGE

According to the thesis writing guide of Tokat Gaziosmanpaşa University Institute of Social Sciences, My Master's thesis named “The Development Of Foreign Trade Between Turkiye And Iraq And Its Effect On National Income” that I have prepared under the consultancy of “Prof. Dr. Rüştü Yayar” is based on scientific ethical values and rules. I hereby declare that it is an appropriate, original work, and I will accept any legal sanctions if it is determined otherwise.

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Rebin Issa Kheder

Date: …../……/…….

JÜRİ KABUL VE ONAY

Rebin Issa KHEDER tarafından hazırlanan "**The Development of Foreign Trade Between Türkiye and Iraq and Its Effect on Natıonal Income**" adlı tez çalışmasının savunma sınavı 31.01.2023 tarihinde yapılmış olup aşağıda verilen Jüri tarafından Oy Birliği ile Tokat Gaziosmanpaşa Üniversitesi Lisansüstü Eğitim Enstitüsü İktisat anabilim Dalı'nda Yüksek Lisans Tezi olarak kabul edilmiştir.

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ÖZET

TÜRKİYE İLE IRAK ARASINDAKİ DIŞ TİCARETİN GELİŞİMİ VE MİLLİ GELİRE ETKİSİ

Rebin Issa Kheder

Prof. Dr. Rüştü YAYAR

Ocak 2023, ix + 88 sayfa

Türkiye ve Irak'ın son yıllarda birbirleriyle ekonomik ilişkileri bulunmaktadır ve Türkiye son yıllarda Irak'ın başlıca ticaret ortaklarından biri olmuştur. Bu çalışmanın temel amacı, 2003-2022 yılları arasında Türkiye ile Irak arasındaki dış ticareti ve bunun iki ülkenin milli geliri üzerindeki etkilerini ekonomik olarak analiz etmektir. Irak ve Türkiye arasındaki dış ticaret 2003'ten 2022'ye kadar artan bir eğilim göstermiştir,ancak bu ticaretin hacmi hala her iki ülkenin milli gelirinin küçük bir kısmını kapsamaktadır. Klasik ve modern dış ticaret teorilerine genel bir bakış sunulmuş ve ülkelerin dış ticaretlerini etkilemek ve kontrol etmek için kullandıkları dış ticaret politikaları ve araçları anlatılmıştır. 2003-2022 yılları arasında Türkiye ile Irak arasındaki dış ticarete genel bir bakış sunulmaktadır. Dış ticaretin bu ülkelerin milli gelirleri üzerindeki etkileri araştırılmış ve son olarak verilerin ampirik analizi için çoklu regresyon testi kullanılmıştır. Çoklu regresyon analizinin sonucu, sadece Irak'a yapılan ihracatın Türkiye'nin milli geliri üzerinde önemli bir etkiye sahip olduğunu göstermiştir. Öte yandan, çoklu regresyon analizi sonucu Irak için Türkiye'den yapılan ithalatınIrak'ın milli geliri üzerinde önemli bir etkiye sahip olduğunu göstermiştir. Son olarak, çoklu regresyon analizi, Türkiye ile Irak arasındaki toplam dış ticaret hacminin hem Türkiye'nin hem de Irak'ın milli gelirleri üzerinde önemli bir etkiye sahip olduğunu göstermiştir.

Anahtar Kelimeler: Dış Ticaret, Türkiye, Irak, Milli Gelir (GSYİH), Regresyon Analizi.

ABSTRACT

THE DEVELOPMENT OF FOREIGN TRADE BETWEEN TURKIYE AND IRAQ AND ITS EFFECT ON NATIONAL INCOME

Rebin Issa Kheder

Prof. Dr. Rüştü YAYAR

January 2023, ix + 88 pages

Türkiye and Iraq have economic relations with each other in recent decades, and Türkiye has been one of Iraq's main trading partners in recent years. The main purpose of this study was to economically analyze the foreign trade between Türkiye and Iraq and its impacts on their national income from 2003 to 2022. Foreign trade between Iraq and Türkiye has had a growing trend from 2003 to 2022, but the volume of this trade still includes a small share of the national income of both countries. An overview of classical and modern foreign trade theories was presented, and foreign trade policies and tools used by countries to influence and control their foreign trade were presented. An overview of foreign trade between Türkiye and Iraq from 2003 to 2022 is presented. The effects of foreign trade on the national income of these countries were investigated and finally, multiple regression test was used for the empirical analysis of the data. The result of multiple regression analysis indicated that only exports to Iraq have a significant effect on the national income of Türkiye. On the other hand, the result of multiple regression analysis indicated that for Iraq, that imports from Turkiye have a significant effect on the national income of Iraq. Finally, multiple regression analysis showed that the total foreign trade volume between Türkiye and Iraq has a significant effect on the national incomes of both Türkiye and Iraq. At the end, conclusions and suggestions for future research are presented

Keywords: Foreıgn Trade, Turkiye, Iraq, Natıonal Income (GDP), Regression Analysis

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DEDICATED TO

Praise be to God, the Great, the Generous, He opens to whomever He wills of His servants with the truth, and He is the All-Knowing Fattah.

I dedicate this humble deed to those who are my pride and my treasure, to those who have supported me throughout life, and those to whom pleasing God is linked, to the candle of my way and the balm of my life, Father. Mother.

To my sisters, brothers.

To the people dearest to my heart, my faithful father and mother.
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ABBREVIATION

EU	The European Union
ECI	The Economic Complexity Index
FETÖ	The Fethullah Gülen Terrorist Organization
GDP	Gross Domestic Product
IEA	International Energy Agency.
JDP	Justice and Development Party
KRG	Kurdistan Regional Government
USD	United States Dollar
USA	United States of America
UK	United Kingdoms
VAR	Vector Autoregressive

INTRODUCTION

The world has very different economies, but economic growth and development is one of the goals that every economy pursues. The economic growth has manybenefits and one of the ways that has resulted in significant success for some countriesis relying on foreign trade and production for supply in international markets. Foreign trade is one of the main foundations of the economic development process and contributes to the growth of many economic sectors, national income, increasing living standards and better meeting the needs of society with a wide range of products and services. In fact, opening the economy to foreign trade leads to more competition, and with the expansion of competition, domestic companies use existing resources more efficiently and improve their productivity.

Many researches in recent years have investigated the relationship between trade and especially foreign trade and economic development. They suggested thatinternational trade or economic openness affects the growth rate of the economy through access to foreign markets, technology and resources.

Turkey and Iraq have economic relations with each other in recent decades, and Iraq has been one of Turkey's main trading partners in recent years. Since the establishment of the two countries, these economic relations have continued, and especially after 2003, the amount of foreign trade between the two countries has grown significantly. After the change of the political regime in Iraq, the volume of trade between the two countries increased from 300 million dollars in 2003 to more than 17 billion dollars in 2020. Although the ISIS war and the problems after the 2017 referendum reduced the volume of trade, this trend continues. However, the amount of trade is in Turkey's favor and in 2019, Türkiye major trading partner countries for exports were Germany, United Kingdom, Iraq, Italy and United States (wits- world bank, 2022).

Although the trade balance has been more in favor of Türkiye. Undoubtedly, the trade relations between Iraq and Türkiye play an important role in the development of relations between the two countries in various fields of the present and future, and even political, and can have a great impact on the economic reality of the two countries and their trade with the outside world. The high volume of foreign trade between these two countries is very important and can have many effects on various economic indicators such as national income in both countries. In recent years, various researches have been conducted on the effects of foreign trade in Türkiye and Iraq, but limited researches have investigated the development of foreign trade between Türkiye and Iraq, and most of these researches have focused on the description and analysis of foreign trade only in Türkiye or only in Iraq. This research investigates the effects of the development of foreign trade between Türkiye and Iraq and its effect on the national income of both countries.

The main purpose of this study is to economically analyze the foreign trade between Türkiye and Iraq and its impacts on their national income from 2003 to 2022, therefore the study also aimed to explore the Turkish-Iraqi trade relations after 2003, their reality, and the position of the trade balance between the two countries. During Iraqi President Berham Salih's visit to Türkiye on January 3, 2019, both presidents set the goal of increasing the bilateral trade volume to 20 billion USD. Since Türkiye and Iraq pursue to increase the volume of trade exchange between them to a level that meetsthe aspirations of the two countries. The main hypothesis of the study is that theincrease in foreign trade between Türkiye and Iraq will increase the national income of both countries. The acceptance or rejection of this hypothesis will be tested. This thesis will contribute to the theories explaining how development of foreign trade between Türkiye and Iraq can influence the national income of these countries from 2003 to 2022.

In this research, the economic relations between the two countries of Iraq and Türkiye are examined. Iraq has a strategic value for Türkiye in terms of trade and economy, and this strategic value has led to the formation of special relations between the two countries. Iraq is the biggest market for goods and services of Türkiye'scompanies and they have made many economic investments in Iraq.

This study purposes to analyze the development of foreign trade between Türkiye and Iraq and its effect on national income of these countries. In particular, the research tries to address the following specific objectives:

- Examine the linkage between foreign trade between Turkey and Iraq and its effect on national income of these countries.

- Examine the structure and performance of foreign trade in the GDP of Turkey and Iraq.

This thesis is organized as follows. After the introduction, in next section,foreign trade theories and policy are mentioned. Then, foreign trade between Türkiye and Iraq from 2003 to 2022 presented in Section 3, effect of foreign trade on national income of Türkiye and Iraq examine and discussed. This section provided sufficient information on historical background of Turkish and Iraq foreign trade and its effect on national income of these countries from 2003 to 2022. At the end of this section, by using some econometric methods, this relationship has been investigated and at the end, conclusions and suggestions have been presented.

SECTION 1: FOREIGN TRADE THEORIES AND POLICY

In this section, theories related to the foreign trade theories and policy are reviewed. This section views relevant theoretical aspects of the foreign trade or international trade, and investigates the effect of foreign trade in the development of national economies of countries under modern conditions. With the growth of foreign trade from the 16th century until now, economists have expressed various theories to explain foreign trade, its roots, causes and effects in the economy of countries, the most important of which will be mentioned below Foreign Trade Theories

Economists have been looking for answers to these fundamental questions of foreign trade, why countries do trade with each other? what advantages they get from foreign trade? and whether a specific model can be determined for countries' foreign trade? International trade has a long history in the world, and nations have long been involved in foreign exchange to meet their needs and obtain goods and services from other countries. In the past, meeting the needs of the society and seeking profit was considered one of the main motivations of countries to enter the field of international trade, but today, other important political and economic goals are also discussed in this area. Some economists believe that the opening of the borders of countries to each other and the expansion of cross-border trade have directed the economic resources of nations to activities that have higher productivity and has accelerated their growth and development. From the point of view of the supporters of international trade, the expansion of foreign exchanges is considered an economic development strategy that countries such as South Korea, Singapore, Taiwan, Malaysia, Indonesia, Brazil and several other countries in East Asia and South America have followed in the past few decades (Lam, 2015). From the early of the 16th century until now, various theorieshave been presented by experts regarding international trade, and some of them are discussed below. In the way of developing trade relations with Türkiye, Iraq needs a suitable model that can explain the production and export of goods as well as the importof needed materials and goods.

1.1 Traditional Theories of Foreign Trade

Bartering is a long-standing custom that has probably existed from the beginning of human history. However, international trade particularly refers to an exchange between citizens of various countries, and records and explanations of such trade do not start until the end of the European Middle Ages, with the birth of the modern nation- state (although some sporadic earlier discussion). Trade with other nations became a focus of specific investigation when political philosophers and thinkers started to consider the essence and purpose of the nation. The Classical Economic School was created as a result of the Industrial Revolution, Physiocracy, and the mercantilism of commercial capitalism, according to historical analysis of the development of foreign trade doctrines. It comes as no surprise, then, that the extremely patriotic school of thought now known as mercantilism contains one of the earliest attempts to explain the role of international trade (Robinson et al., 2020).

1.1.1 Mercantilism

It is the first theory that was presented in the middle of the 16th century about international trade. This theory considered gold and silver reserves as the basis of national wealth and a determining factor in the establishment of foreign exchanges of countries. At that time, gold and silver were considered means of payment in foreign trade and it was possible to obtain it through the export of goods (Kahya, 2011).

The main idea of mercantilism theory was that every country should try to export more and import less in order to finally achieve a trade surplus. Since the means of international payment was gold or silver, the country's trade surplus led to an increasein the reserves of precious metals such as gold or silver, which in turn increased the national wealth and strengthened the country's economic position in the world. According to this view, the mercantilists supported the government's intervention in the economy and foreign trade in order to control imports and increase the balance of payments surplus. After the emergence of the classical school, this theory was criticized by many economists, including David Hume, and led to the conclusion that a country's trade balance surplus cannot be permanent (Lam, 2015).

Because it increases the amount of money, increases the demand and makes the goods more expensive for foreign buyers and ultimately reduces the exports of that country. It should note that despite the theoretical inadequacies that can be seen in the theory of mercantilists, this point of view is still not completely abandoned, and some politicians and those who look at macroeconomics with a political orientation prefer the increase of exports over imports and the accumulation of monetary resources for the country and consider having a trade balance surplus as an effective way to increase national power (De Feis and Grunewald, 2016).

Mercantilists believed that international trade is zero sum game. Only exporting country has gains from trade while the importing country will lose. In that time international trade has not yet been recognized as mutually beneficial for all countries involved in the process of trade (Jošić and Metelko, 2018).

1.1.2 Theory of Absolute Advantage

Adam Smith in his famous book called "Wealth of Nations" first criticized the theory of mercantilists and then explained the causes and effects of exchanges between countries and told the nations the sources of entry into these transactions. From Smith's point of view, countries have different conditions in terms of efficiency in producing goods. He believed that every country should focus on producing goods in which it has an absolute advantage over other countries and also import goods that other countries have superiority over. According to Smith, a country should never produce a product domestically if it can get it cheaper from abroad. He believed that by specializing the production and focusing on the goods in which they have a clear advantage, they will finally benefit from the exchange of these goods with each other and this policy will benefit all the countries on the exchange side (De Feis and Grunewald, 2016). From a global point of view, international division of labor, specialized production and following Adam Smith's suggestion will increase the productivity of the earth's economic resources and increase the welfare level of all nations by producing more goods (Morgan, *et al*., 1997; Smith 1776). Of course, this analysis applies in the case that the political-economic conditions of the world are ready for the implementation of all aspects of this theory. In fact, this theory is based on several hypotheses that, if they are realized, the possibility of its application will be provided. According to Smith, each country finds complete expertise in the production of a product with the division of labor, which has an absolute advantage in its production, and with this assumption, trade between countries is established (Uddin, 2021).

1.1.3 Theory of Comparative Advantage

Although Adam Smith's theory of absolute advantage has greatly contributed to understanding the behavior of countries in international exchanges, it raised questions in the minds of post-Smith economists. One of these questions was that if a country has an absolute advantage in the production of all goods compared to other countries, what role it can play in international exchanges. Smith's view was that such a country cannot gain benefits in foreign exchange, so it probably will not participate in these exchanges(Jošić and Metelko, 2018). David Ricardo in 1817, criticized Adam Smith's theory of absolute advantage and answered the above question by saying that when a country has an absolute advantage in the production of all goods, it can produce goods to produce and export goods in which it is most efficient and to import the goods in which it is less efficient from abroad. By implementing such a policy, this country will also gain benefits from foreign exchanges. This view, which was accompanied by stronger economic arguments, became known as the theory of comparative advantage, which canbe considered an evolved form of Adam Smith's theory. Ricardo believed that the difference in comparative advantage is due to the difference in the productivity of production factors (Czinkota, *et al*. 2009; Hill 2012; Morgan, *et al*., 1997; Ricardo, 1817). Ricardo tried to expand Smith's theory by proposing the theory of comparative advantage. According to him, the difference in relative costs forms the basis of international trade; That is, a country that does not have an absolute advantage in the production of both goods must produce and export a good that has a greater absolute advantage in its production. On the other hand, a country that has an absolute advantagein the production of both goods must specialize in the production of the goods and export it, which has a higher absolute advantage in its production; That is, in fact, each country must produce and export a product that it has a comparative advantage in producing (Lam, 2015). The main weakness of the classical theories of foreign trade was that they only considered labor as a factor of production and viewed foreign trade only from the supply side (Jošić and Metelko, 2018).

1.1.4 Heckscher – Ohlin Theory

Contrary to Ricardo's belief that the difference in relative advantage is due to the difference in the productivity of production factors, Heckscher and Ohlin, in the theory they presented in the first half of the 20th century, attributed the difference in relative advantage to the difference in the amount of profit. Ricardo's question was answered by two Swedish economists named Heckscher and Ohlin in a theory called the theory of abundance of production factors, which is known as the Heckscher-Ohlin theory (Lam, 2015).

According to the Heckscher-Ohlin theory, the difference in the supply situation in countries is a more important factor for the establishment of international trade, and the supply situation also includes the efficiency of the production factor as well as the abundance of the production factor. This theory, unlike Ricardo's theory, which considers the efficiency of production factors as the basis of international trade, considers the abundance of production factors to be the main factor in establishing international trade, and the difference in relative prices of countries is caused by the difference in relative abundance of the factors of production (De Feis and Grunewald, 2016).

The Heckscher-Ohlin model expands Ricardo's theory of comparative advantage both in terms of the causes of comparative advantage and the effects of international trade on the income of production factors in two different dimensions. They considered the prosperity of the countries as one of the natural factors of production. They showed that if the production functions of two countries are similar, there is still a relative advantage for both countries, and for each of them, the advantage is in producing a product whose production factors are more abundant in the country. If labor force is more abundant than capital in a country, under similar conditions of technology, that country's relative advantage is in the production of labor-intensive products; Because in the mentioned country, according to the function of the supply and demand forces in themarket, the labor factor must be cheaper than the capital factor. On the contrary, the country that has more capital should focus its production on capital products, because capital is cheaper than labor in such a country (Lam, 2015).

Studying the Heckscher-Ohlin theory is important for countries that seek comparative advantages. According to this theory, foreign trade between rich and poor countries is possible. Although the Heckscher-Ohlin theory is one of the most tested theories in international trade, the experimental results do not confirm it (Jošić &

Metelko, 2018). The accuracy of this theory in explaining the patterns of international trade is very random and similar to predicting the results of a coin toss (Trefler, 1995).

One of the famous paradoxes of the Heckscher-Ohlin theory was expressed by Leontief during the empirical study of the US data. He found that, contrary to the Heckscher-Ohlin theory, the United States specializes in the export of labour-intensive goods and imports capital-intensive goods, while the United States is a country where capital is more than labor (Leontief, 1953).

On the other side, Linder (1961) proposed a possible resolution of the Leontief paradox that questioned Heckscher-Ohlin theory. He stressed the importance of demand side arguing that trade will happen between countries of similar demand structures.

1.1.4.1 Factor Endowment Theory

The factor endowment theory argued that each country benefits from a comparative advantage when producing items that heavily rely on the factor it possesses. Whichever production element the country possesses in abundance, it enjoys a competitive advantage in the items whose production depends heavily on that factor.In other words, it specializes in producing them at a lower cost (Kelly, 2021).

1.1.4.2 Factor Price Equality Theory

The factor price equalization theory, developed by American economist Paul A. Samuelson (1948), states that if the prices of outputs are equalized between countries participating in free trade, then the prices of input factors will also be equalized among countries. This theorem is based on the assumption that if factors of production are freely mobile between countries, then factor prices would be equal in all countries. The factor price equality states that nations that produce the same product mix with comparable technologies and the same product prices must also have the same factor prices for the same factors (Berger and Westermann, 2001).

Factor pricing should be the same when factor endowments are such that all countries choose the same range of items to manufacture, even though they may vary between countries that are situated within various cones of diversification.

In order to better understand this theorem, this indicates that free trade willcause wages and rents in all countries to converge. The expansion of trade with a country with a large labor pool, such as country (A), will raise the cost of labor-intensive goods like clothing and consequently boost the output of clothing. The need for production inputs increases in the clothing industry as a result of the high demand for clothing in international markets. Clothing is a labor-intensive good, thus as the factor market in country (A) expands, workers from capital-intensive industries likesteel will be absorbed to increase clothing manufacturing (Chacholiades, 1978).

Comparatively speaking, the growing apparel sector takes more workers than the shrinking steel sector releases. The cost of labor has increased, but while its relative price has increased, the cost of capital has decreased. As a result, both sectors' factors of production will become more capital-intensive, which will cause a drop in capital's marginal productivity and an increase in labor's (Lam, 2015). The following are the presumptions for factor price equalization:

1) Two countries, two commodities, and two factors of production
2) Free Trade
3) Perfect competition.
4) Free transportation.
5) The same production processes.
6) Constant return to scale.
7) Factors that are completely movable within each nation.

1.1.4.3 Stolper - Samuelson Theory

According to the Stolper-Samuelson theory, free trade will boost the real income of the resource that the nation has in abundance and lower the income of the resource that is in short supply. The element that is used relatively intensively in the manufactureof a good will obtain a higher part of the income than the other factor as the relative price of that good rises (Öztürk, 2009).

According to this theorem, an increase in a good's price will result in a rise in the cost of the factor used most frequently in that business and a decrease in the cost of the other factor (Lam, 2015).

1.1.4.4 Rybczynski Theory

The Rybczynski theorem, like the Stolper-Samuelson theorem, assumes a small, open economy that engages in free trade to illustrate the relationship between endowments and outputs. It illustrates how, when full employment is maintained, changes in an endowment have an impact on the output of goods. According to this theory, an increase in a factor's endowment will result in a higher output for the industry that uses it most heavily and a lower output for the other industry (Lam, 2015).

According to Rybczynski, if a country with a small part of global commerce raises one of its production factors, the production of items that utilize that factor heavily will increase while the production of goods that use it less heavily will decrease.According to Rybczynski's hypothesis, production of the good that employs the factor heavily will expand when the supply of only one factor increases under ideal working conditions, while production of the good that uses the factor heavily but whose supply stays constant will decline For a long time, no method existed to divide products into factor combinations, making it impossible to verify the factor endowment theory. With the invention of Leontief's input-output table, it was possible to separate items according to their labor and capital composition. Leontief took into account American trade with the rest of the globe as his first practical assessment of the Americaneconomy. He stated that the United States imports capital-intensive commodities while exporting labor-intensive goods. This result, known as the Leontief paradox, left economists perplexed, heated debates over conventional ideas erupted, and it became necessary to build new theories to account for international trade (Öztürk, 2009).

1.2 New Foreign Trade Theory

After the Heckscher-Ohlin theory was put to the test by W. Leontief and the contradicting results emerged, new theories were produced to explain the chain of explanations from Mercantilists to Heckscher-Ohlin Theory. It is currently impossible to explain the commercial ties between almost 200 countries using models of foreign trade based on two production variables, two countries, and two goods. In this instance, it would be oversimplified to describe global trade using conventional theories. International economists attempted to create new theories to explain foreign commerce as a result of all these events, particularly after the 1960s (Öztürk, 2009).

Economic models always reduce complexity. In the same way that an artist schematizes a person's portrait, these models schematize reality. This clarity helps to show how there is a closed cause and effect relationship. There are numerous tangible factors that affect the economy in the actual world (Debonneuil, 1993: 1-7). It iscurrently impossible to use a single theory to account for all global relations. The focus is on development and how new ideas complement established foreign trade theories, particularly the factor ratio theory. Alternative explanations based on comparative advantages can be found in new theories of foreign trade. New theories also modify the notion of comparative advantage to account for technology advancements and contemporary market systems (Laussel and Montet, 1993).

Modern business relations cannot be explained by traditional theories of foreign trade, which has prompted new theoretical investigations. Traditional theories of foreign trade are no longer adequate to explain new trends in foreign trade due to recent advancements. Technology has advanced to a new level, and as a result, global economic ties have taken on their desired forms. The axis of technical growth iscurrently the focus of international trade theories. The link between national production and international trade has changed to one between international production and intra- firm trade due to the amount of technology that exists today (Yılmaz, 1992: 2).

The main new foreign trade theories can be considered as skilled labor theory, monopoly competition theory, intra-industry trade theory, economies of scale theory, similarity theory in preferences, technology gap theory, product cycle theory, product differentiation theory, competitive advantage theory and other theories (Öztürk, 2003 : 109-1226). These theories will be explained below;

1.2.1 Skilled Labor Theory

Traditional theories of international trade assume that labor is homogeneous throughout the world. However, the quality and method of labor varies greatly between nations. The standard of labor varies greatly around the world. The investment in human capital is larger in countries with skilled labor, which explains this. The labor-intensive equipment and capital contribute to the variation in quality as well (Cadio *et al.*, 2000: 49-63).

The idea of skilled work is founded on the idea that different types of labor have different qualities. This idea, advanced by Keesing (1965) and Kravis (1970), argues that the difference in skilled labor between industrialized nations can account for a sizable portion of international trade. Numerous economists have been examining whether global exchange has an effect on the factors driving inequalities in the growthof developed countries' labor markets in recent years. The value of unskilled labor in thenorthern countries has decreased over the past 20 years despite a considerable growth in the active population. The earnings and employment have reflected this. Unquestionably, technical advancement has contributed to this trend (Bodier, 2000: 65- 82).

In comparison to other countries, when a country with a skilled labor force opens its borders to trade, the relative cost of goods increases for the country with the skilled labor force. This indicates specialization in the manufacture of this good, in line with Hecskcher Ohlin hypothesis. As a result, the output and cost of goods that do not require skilled labor decline, and changes in the level of production result in an excess of unskilled labor supply. Each good is produced with physically less efficient and with a lower real income when unqualified labor is used. The Stolper - Samuelson theory is supported by this outcome. In other words, changes in relative costs follow changes in relative prices of items. Non-skilled labor-intensive goods' production costs decrease at a rate equal to that of their prices (Öztürk, 2009).

To be effective, this regulation must cause the wages of the unqualified labor force to decline by an amount greater than the cost of the good. The skilled labor theory and the factor endowment theory have a lot in common, as can be observed. This hypothesis presents an optimistic view of adaptation to start with. This is because neither the cost regulation nor the workforce's limited cross-sector mobility were taken into consideration. But this theory brings up a crucial issue. The consequences of global trade on returns are determined by these relative price changes. The value of theunskilled labor force engaged in production decreases as the relative cost of imported items rise. Lawrence and Slaughter (1993) undertook an empirical examination of the change in pricing of goods for the United States from 1979 to 1989 in an effort to disprove the Stolper-Samuelson theory. Based on the exchange of goods between America and other countries, they came up with an unexpected outcome. As a result, since the 1980s, the relative cost of goods requiring a high level of skill has notincreased. The findings of Lawrence and Slaughter were disproved by Sachs and Shatz (1994), who arrived at the opposite conclusion based on domestic prices. Between 1979 and 1989, they saw a large decline in the relative pricing of goods requiring unskilled labor. Nevertheless, when economies of scale are present, the relative cost of the good may decrease as the output of the intensive factor that creates it rises. This does not contradict the factor endowment theory (Cortes and Jean, 1995: 359-407).

Within the framework of the private factor, two commodities, and two factor models, Fabrice Mazerolle examined how trade with other countries affected the labor market. The workforce in industries that rely on exports is better qualified, according to empirical research for France (Mazerolle, 1988: 90-110).

By including human capital to the factor endowment in the conventional Heckscher-Ohlin theory, skilled labor theory explains the structure of internationaltrade. It is believed that the skilled labor has latent human capital that contributes to the country's factor endowment. The neofactor endowment theory, commonly known as theskilled labor theory, does not contradict the Heckscher-Ohlin theory (Öztürk, 2009).

1.2.2 Monopolistic Competition Theory

Traditional theories of international trade have supposed that both the factor market and the goods market are subject to the conditions of perfect competition. Price, production, and specialization based on comparative advantages can all obviously take different forms in these marketplaces as there isn't ideal competition in them. Because there is no relationship between the price of goods and their costs in a market where fully competitive markets do not exist, production and specialization are influenced by various factors. The absence of perfect competition in the markets of goods and factors of production, which is one of the most important assumptions of traditional foreign trade theories, has important consequences for foreign trade. In studies that began in the late 1970s and lasted through the 1980s, Lancaster, Spence, Dixit, and Stigltz created a new framework for understanding international trade. The monopoly competition theory looked at international trade under imperfect competition (Laussel and Montet, 1993: 483-526). The theories of foreign trade established within this framework are not entirely original. Ohlin emphasized the possible contribution of increased yields to the explanation of specialization and change. Haberler and Viner have studied monopoly firms' strategies, particularly the dumping strategy. Various economists have discussed the significance of increased output or firm market dominance. The dominant analyses, however, are predicated on the assumptions of perfect competition and constant yield. The development of microeconomic applications, particularly in the area of industrial economy, has been examined on more appropriate grounds thanks to the monopoly competition theory, which has made it possible to reposition the center of interest. The new model places a major emphasis on factors and how they are used. In the case of monopoly competition, the consumer's preferences become more appropriate as a result of economies of scale and evolving product differentiation. Numerous businesses are integrated into the global market by change. In the theory of monopolistic competition, firms' strategies change and the same good is exchanged in both directions. Traditional theories of comparative advantages have not provided a convincing explanation for the large volume exchanges between industrialized nations with extremely close factor armies, the percentage of intra-industry trade in all trade, or the increase of intra-firm trade. The Stolper-Samuelson theory fails, and the results of liberalizing trading inside the customs union and common market practices do not confirm the predictions based on the dominant theories (Öztürk, 2009).

The fundamental assumption behind applying the monopolistic competition theory to international trade is the idea that it expands the size of the market. The size of the market places restrictions on the kind of items that can be produced as well as the scale of production in businesses with economies of scale. Countries have the chance to loosen these constraints by engaging in trade with one another and thereby building an integrated international market that is larger than a national market. Each country may specialize in producing a smaller range of goods than would be the case without trade, but by purchasing the goods that it cannot produce from other countries, each country would be able to simultaneously increase the variety of goods available to consumers, while the nation specializing in production. As a logical outcome of this circumstance, international trade presents a chance for countries to profit from one another, despite the fact that their resources and technological capabilities are similar. The monopoly competition model can be used to demonstrate how trade improves the trade-off that each country faces between scale and diversity. International trade has the potential to expand national markets globally. Due to the larger market, monopolistic competition will lead to lower pricing and a wider variety of goods (Krugman and Obstfeld, 1997: 105-126).

The monopoly competition theory is based on two key principles. First, it is assumed that each firm has the ability to set its product apart from that of its competitors. In other words, even if there is a slight price difference, their clients won't be driven to buy the goods from other companies. Product differentiation guaranteesthat each company within an industry has a monopoly on its own product and is thus relatively separated from the competition. Second, it is assumed that each company accepts the prices set by its competitors as a given and overlooks the impact of its own price on those of other companies. The theory of monopoly competition is as if it were a monopoly, despite the fact that each firm actually faced competition from other firms, as a natural result of this situation (Krugman and Obstfeld, 1997: 105 -126).

More emphasis is placed on the consequences of product differentiation in monopolistic competition models. Their demand is greater. This strategy makes use of either the ideal product type approach, as suggested by Lancaster, or the assortment approach, as suggested by Dixit and Stiglitz (Laussel and Montet, 1993: 483-526). Three causes of change are emphasized by the monopoly competition theory. These three sources can work together and complement the older ones. These are the business strategies of large, diverse, and market-dominant companies. Businesses in the industrial sector often operate under conditions of increasing productivity. The establishment of monopoly competitive markets is a natural result of this circumstance. In fact, an indicator of this is the existence of a considerable number of companies in the industrial sector producing goods that are slightly distinctive from one another. Each company or manufacturer is compelled to make fewer types of goods than they would otherwise in order to benefit from economies of scale. In fact, this is owing to the interchangeability of differentiated goods and the firm's attempt to cut costs in response to global competition. Production can specialize, use more effective machinery, andtake advantage of economies of scale when it is focused on a small number of species. As a result, in addition to exporting the particular species, the country also imports otherspecies from abroad (Seyidoğlu, 2003: 89).

The theory of monopoly competition is superior not just because it offers a fresh perspective on change. Productivity gains at the company level enhance product diversification. This model reveals the relationship between the intra-industry trade part and factor endowment in all trade, allowing a set of empirically testable hypotheses about the relationship between a country's size and trade to be put forward. These relationships, meanwhile, cannot be explained within the framework of traditional theories. It is possible to view many of the hypotheses generated by the monopoly competition model as strengthening the theory of factor ratios in particular. Dynamic models also contribute to the useful application of the theory of comparative advantage into the high-tech sector, where the business invention strategy in imperfect competition plays a key role. The new model of external economies or economies of scale brings international trade theories closer to reality, whether it enhances traditional theories or highlights logical disparities. Particularly within the context of dynamic analysis, the integration of ideas of international trade and industrial organization continues. Derived from this are the dynamics of country specialization, the concentration of economic activity in particular centers, and the competitive advantages of companies. Certain essential components of marketplaces with economies of scale and consequently imperfect competition have been adequately described by monopoly competition theory. Few businesses, though, are ideally suited to monopoly competition. Instead, a small group oligopoly, in which just a few businesses actively compete with one another, is the most prevalent market structure. The main assumption of monopoly competition theory, that each firm will act as though it were a true monopoly, would probably be proven false in this scenario. Instead of making this supposition, companieswill be aware of how their activities may influence those of other companies and will account for this interdependence. In the general theory of oligopoly, two types of behavior are revealed; however, due to the fundamental assumptions, these are not included in the monopoly competition model. The first is to work as a team. Implicit coordinating tactics, such setting prices or letting one company serve as the industry's price leader, can be used to inspire collaboration. Firms are also capable of strategic behavior. It may take actions that seem to cut its profits but actually have positive effects on how competitors behave. For instance, the company's entrance into a market where competitors may exist. The analysis of oligopolies is made more challenging by these opportunities for both strategic and cooperative behavior. There is no singleaccepted model of oligopolistic behavior. This complicates the modeling of trade in oligopolistic businesses (Krugman and Obstfeld , 1997 : 105 126).

The monopolistic competition theory is an attractive one for international trade. Because the agenda is not complicated by this. Monopoly competition theory has been widely acknowledged as a technique to provide a first draft of an understanding of the value of economies of scale to international trade, even though some parts of the real world can be left out (Krugman and Obstfeld , 1997 : 105 126). The identification of increasing returns to scale as the driving force behind trade is one of the monopolistic competition theory's most significant contributions. Using this, it explains the phenomena of intra-industry trade, which is inexplicable by traditional theories of foreign trade (Öztürk, 2009).

1.2.3 Intra-industry Trade Theory

Traditional theories of foreign trade predict that trade will grow between manufactured goods and primitive goods. Traditional theories contend that trade is primarily driven by differences in technological or factor endowments between countries, and that trade should be composed to reflect this. Accordingly, countries should export goods that contain the factors of production that they own relatively more than others. However, after World War II, foreign trade evolved in the direction of the interchange of manufactured goods, according to applied research by Balassa, Grubel, and Lyold. The calculations show that this approach accounts for a significant percentage of all trade between developed countries. To address this shortcoming of traditional theories in explaining the growth of international trade, the intra-industry trade theory has been established. According to standard industrial classification systems, a quarter of world trade involves the exchange of goods within the same group in both directions. The majority of international trade is intra-industry, and it is crucial to the flow of manufactured goods among the advanced industrialized countries that make up this trade bloc. Industrialized nations are increasingly similar to each other in terms of their levels of technology, access to capital, and the availability of skilledlabor. There is frequently no obvious comparative advantage within a specific industry because the major trading countries have become similar in terms of technology and resources. As a result, the majority of international trade consist of intra-industry trade driven by economies of scale rather than inter-industry trade driven by comparative advantage (Krugman and Obstfeld, 1997: 105-126).

Since the 1960s, trade relations between industrialized countries have been tried to be explained, with a focus on industries based on returns to scale and product differentiation. This has led to a popular theory that change occurs between industries. The countries' efforts at product differentiation in monopoly competition eliminate that financial homogeneity, while also assisting in cost advantage based on economies of scale, providing the chance to work with decreasing costs and to have a demand curve with a high level of flexibility but a negative slope (Ertürk, 2001: 41-47).

Comparative advantage is not exhibited in intra-industry trading. Even if all countries have the same overall capital-labor ratio, businesses will still develop differentiated goods, and customer demand for goods made elsewhere will still drive intra-industry trade. Each country is unable to produce the full range of goods on its own because of economies of scale. According to the intra-industry trade theory, the nature of international trade depends on how similar the countries are. Depending on theeconomies of scale, there will be a strong intra-industry trade relationship between countries with highly similar capital-labor ratios (Krugman and Obstfeld, 1997: 105- 126).

Intra-industry trade can be defined as a country both exporting and importing goods belonging to the same industry. Trade within an industry happens as a result of economies of scale and product differentiation. Transport costs and environmental laws are also useful in this regard. The benefits of intra-industry trade significantly exceed those of comparative advantage in terms of additional gains from international trade. Because intra-industry trade allows countries to take advantage of larger markets. Countries can reduce the number of goods they produce while increasing the variety of goods available to customers by engaging in intra-industry trade. Countries can manufacture each good on a larger scale with higher productivity and lower costs by manufacturing fewer types of goods. Additionally, consumers benefit from more choices (Krugman and Obstfeld, 1997: 105-126).

The goal of intra-industry trade is to reduce the cost of transportation for homogeneous goods, which are frequently large and heavy. Particularly between countries with extensive geographic borders, intra-industry trading in homogeneous goods happens. The best illustration of this is the trade in timber between the USA and Canada, which share a very long east-west border (Seyidoğlu, 2003: 91). The international trade in goods that are close substitutes for one another can be explained by the fact that the goods produced by the countries are homogeneous and the assumptions that they have similar tastes have changed. For instance, some countries manufacture large-type cars, while others manufacture small cars. As a result, they are in high demand among consumers in any country that favors both large and small cars (Iyibozkurt, 2001: 17-103).

As a result, intra-industry trade is actively conducted among countries that have advanced levels of development, demolished customs barriers, large domestic markets, and high per capita income levels. Instead of attempting to determine why trade occurs, intra-industry trade analyzes the structure and operation of current trade (Ertürk, 2001: 41-47).

1.2.4 Scale Economic Theory

Traditional theories of international trade make the assumption that tradable goods are produced at constant yield rates. However, it is clear that this is not the case when economies of scale are considered. Haufbauer and Graham pay attention to this issue. There are two ways to think about economies of scale: internal scale economies and external scale economies (Seyidoğlu, 2003: 87). When a company's unit cost reduces as a result of expanding the scale of its own production, it is called as internal economies of scale. Some machines are operated with insufficient capacity in smaller companies, which increases the unit cost. By enabling the optimal production scale to be reached, increasing the production volume results in a significant cost reduction. Additionally, as production volume increases, workers learn on the job and develop expertise. The growth of the business contributes to improved managerial effectiveness. Thus, the opportunity to use professional managers and apply the most advanced management knowledge to the business arises. Lower costs are the result of all these intra-firm effects. On the other hand, external economies of scale appear as a decrease in the firm's average cost as the industry to which the firm belongs sees an increase in output volume. External economies are effects that result from both the expansion of an industry as a whole and the firm's own production volume. Factors like raw materials, intermediary goods, and skilled labor can be offered more simply and more affordably as the newly founded sector grows. In terms of the organization of industries, internal and external economies of scale imply various implications. One of the key factors that drives international trade is the existence of both internal and external economies of scale. However, for two reasons, internal economies have been the focus of the most recent research on the function of scale economies in international trade. The first of them is that, in practice, it is easy to recognize internal than external economies of scale. The second argument is that internal economies of scale models for international trade are simpler to develop than external economies of scale models (Krugman and Obstfeld, 1997 : 105-126).

Economy of scale is the decrease in average costs driven by an increase in all inputs. This is more likely to occur in capital-intensive sectors. The first to emerge in this field are the external economies provided by market entry under competitive conditions. A growing company leads to the spread of knowledge and technology among companies, which gives companies the opportunity to use information andtechnology that they do not bear the cost of as input and to reduce costs. By gaining comparative advantages in the low-cost goods they produce by utilizing the declining production costs, or in other words, increasing returns to scale, countries with a large domestic market take advantage of the economies of internal and external scale and export them to other countries. Depending on the size of the local market, takingadvantage of economies of scale in production is important for acquiring a competitive edge in particular production sectors (Cortes and Jean, 1995: 359-407).

Even though countries' preferences, technologies, and factor endowments are the same, they still trade with one another due to growing returns to scale in the case of increasing returns to scale. As a result, the comparative advantage resulting from country differences no longer serves as the sole justification for international trade. The two-way trade of goods with similar factor ratios can also be explained by countries' specialization in order to benefit from economies of scale (intra-industry trade between countries) (Akkoyunlu, 1996: 71-99).

When economies of scale exist, an increase in manufacturing volume results in a decrease in the product's price. An increase in the return on capital causes an increase in the relative price of the capital-intensive good. It is then difficult to know whether successive production has an effect on the fall or increase in the price of the commodity in question. If this is the case, one of the expected outcomes of the Stolper-Samuelson theory is not at all valid. When a factor that is extensively used in the development of a good sees an increase in real return, the relative price of that good may decline at the same time. This is accurate when economies of scale are present, which are critical to making up for traditional impacts. It becomes more and more important to list the various consequences as the price of the imported good changes, which is not determined a priori. Also, a simple comparison of the direction of change in the price of a heavily used factor of a good does not prove the inadequacy of an explanation based on the Stolper - Samuelson theory. Because the consequences of economies of scale might make this invisible. Therefore, industries that use more skilled labor have the greatest potential for economies of scale. It can also make it more difficult to analyze other situations like product difference and market dominance. Companies benefit greatly from economies of scale in terms of cost. The perfectly competitive market structure, in which the prices of large firms are used as data, is naturally replaced by imperfect competition markets as a result of this situation. Each firm has a somewhat monopolistic control over its own production in marketplaces with imperfectcompetition. Instead of producing a small amount of the large number of goods that consumers will buy in the domestic market, firms go to specialize in a few industries with economies of scale and import the goods they need from abroad. Economies of scale reduce costs. It provides the opportunity to make profitable trade even between countries that are similar to each other (Seyidoğlu, 2003: 87).

The basis of the theory of economies of scale in international trade is thevariation in comparative advantages produced by economies of scale. The economies of scale theory states that a big country can guarantee producers a wide domestic market aslong as it has a lot of purchasing power. Because there is a large local market, it is possible to build businesses with increasing returns on scale that can serve both domestic and international markets. As a result, the country benefits from lower costs due to the volume of the relevant products on international marketplaces. Only in the case of its export industry can a tiny nation consider utilizing economies of scale. But if it is considered that for a variety of reasons, foreign markets cannot offer the same security and stability as the domestic market, it may be claimed that the manufacturers in these countries will set up their businesses on a smaller scale. The benefits ofincreased returns to scale on international marketplaces will therefore be denied to producers in small countries (İşgüden and Akyüz, 1990: 47-58).

1.2.5 Similarity in Preferences Theory

Traditional theories of foreign trade accept that social indifference curves represent the same preferences and make the assumption that tastes and preferences do not change over time. As a result, changes in tastes and preferences do not cause a dramatic shift in the trade of goods that are exposed to international trade. However, the differences in taste and income found in international markets play a significant role in international trade. Sometimes tastes and preferences transcend national boundaries and generate demand abroad. Americans may prefer French and Italian wines to those from California. While people in this country prefer small European cars, Europeans may appreciate riding in large American cars. Demand for goods that are tradedinternationally may be significantly influenced by consumer tastes (Karluk, 1998).

The tastes and preferences of the society vary significantly as a result of economic development. Foreign trade, in particular, causes changes in social preferences and demand patterns. Countries that have opened their markets to international trade are now exposed to goods they have never seen before and are beginning to recognize and consume them. The demonstration effect, in particular in developing nations, accelerates the spread of modern consumption patterns in these countries through international trade. Due to quick access to information about the goods produced and consumed in other countries provided by current communication tools, previously unidentified needs now become visible (Karluk, 1998).

The Swedish economist Staffan Burenstam Linder's theory of similarity in preferences, which emphasizes that trade of non-homogeneous goods depends more on the similarity of tastes and preferences between countries than on the cost of production, can be applied to the trade of industrial products. Firms in the country will generate the items and services that are in high demand and have a large market. Additionally, these products and services are exported internationally. The nations where the people's preferences are most similar are the best candidates for exporting these goods. According to Linder, a country primarily produces the products demanded by themajority living within its borders and therefore exports them. On the other hand, it imports the goods required to meet the demand of the country's minority of extremely wealthy or extremely poor citizens. As a result, trade between countries that have similar demand structures is higher. Sagging demand, in Linder's opinion, is the driving force behind this kind of international trade. Trade between countries will increase if their demand levels are similar (Iyibozkurt, 2001). This theory argues that domestic consumption is the primary market for all goods. A good whose domestic demand is zero is supposedly unable to be manufactured only for export. The basis for domestic manufacturing is domestic demand. Non-economical goods produced to the tastes and preferences of the minority in the country are covered by imports from other countries that share the preferences of the majority. As is evident, this model places a strong emphasis on the demand factor in order to explain the trade in industrial goods. Demand differences make up a significant part of trade between developed countries with similar relative factor levels. However, factor ratio theory states that trade must take place between countries with fundamentally different economic structures and factor intensities. This theory has significantly advanced the study of international economics in this regard (Laussel and Montet, 1993). According to Linder, there will be more international trade when the less disparity there is in income distribution and per capita income levels between countries. The majority of international trade in industrial goods now takes place between countries with similar relative factor intensities. This theory is supported by the fact that most trade at the international market occurs between industrialized countries (Öztürk, 2009).

1.2.6 Technology Gap Theory

Technological advancement is the change of manufacturing methods intended to produce a greater quantity of a given good. Changes in manufacturing processes are a necessary result of technological growth, which also affects a country's comparative advantage. The impacts of technological advancement are similar to those produced by changes in factor levels and have an impact on factor utilization rates (Karluk, 1998).

Traditional theories of foreign trade are predicated on the idea that there is no restriction on the use of industrial technology and that all countries have unrestricted access to it. Some industries might follow the same technological assumption internationally. However, this assumption is unrealistic for a great industrial group. Technology is typically kept as a "trade secret" by most companies (Seyidoğlu, 2003). Comparative advantage in today's era does not mean that countries have natural resources, but rather that they have knowledge and technology, which is considered as the superiority of countries and the determining factor of success on the world. Along with the developments in information technology, new theories have emerged in international trade, and the theory of the technological gap (Posner theory) is one of these theories. Posner challenges the classic theories of international trade's assumption that all countries' production processes are the same and all have easy access to technical knowledge. He argues that foreign trade is still possible even though factor endowment levels are the same across all countries. due to the fact that technicalexpertise found in one country is not found in another. For this reason, inventions frequently result in the company that made the invention having a temporary monopoly position. The learning process determines whether companies in other countries acquire that technical knowledge and create the same product (Yilmaz, 1992: 210). The technology gap theory proposed by Posner is based on technological innovations in management techniques that occur at different rates in different countries in the production process or products. Based on technological advancements in management techniques that happen at varying rates in various countries in the production process or products, Posner's technology gap theory was put forth. Technological innovation affects production, giving the country where the innovation takes place a significant comparative advantage in the product. Exports to countries without this innovation include goods produced before the technological innovation was imitated by other countries. In particular, a manufactured good is produced in industrialized countries through the application of technological accumulation and exported to other countries. Export will carry on until other countries pick up this technology. Countries that emphasize spending on research and development experience technological development. Companies that invest in research and development to create new products then monopolize that market by securing these rights through patent and intellectual property regulations. It gets a comparative edge in the creation of that good, even if it is temporary (Karluk, 1998: 83-91). As technology is imitated, it gradually loses its supremacy as that product is produced in other countries. This process, though, is continuous (Bienayme , 1993 : 6-13).

Today, scientific research is more focused than ever, and new products are continually discovered and introduced to the market. This keeps the continuity of international trade based on technological gaps in terms of new products. In terms of technical deficit, a country's ability to compete effectively in the international trade depends on both how quickly it can introduce new products to international markets and how quickly it can adopt foreign inventions within its own borders. According to this idea, countries who can quickly implement new product technology within their own economies and export new products on a consistent basis to foreign markets will see increased foreign trade dynamism (İşgüden & Akyüz , 1990 : 47-58).

The technology gap theory states that the majority of trade between developed nations is based on new products and manufacturing techniques. They are developed by creative businesses, many of which have their headquarters in highly industrialized countries. Patents and other intellectual property rights provide protection forinnovations. The firm that discovers the innovation for the first time monopolizes it. This theory suggests that the first countries to export a new good or manufacturing method are industrialized countries. However, over time, technology has moved into thehands of other countries, either through imitation or by becoming a free commodity. As a result, these countries are able to produce the above- mentioned goods for less money than the original inventor due to their access to cheaper labor or better natural resources.Thus, these less developed countries began to export the goods in question. Thus, the goods in question are started to be exported by these less developed countries. The countries that first invented the good now import it from abroad, as they cannot competewith these countries. The majority of production technologies are created in advanced industrial nations, and after a brief delay, mass production is initiated in less developed nations, according to practice. The most typical example of this is weaving products. After developing nations started producing textiles, the UK, once the top textile exporter in the world, started importing these goods. It has uses in many other fields, such as electronics, chemistry, iron and steel, in addition to the textile example (Seyidoğlu, 2003 : 83).

If in a two-country model, one is much more dynamic than the other, the less dynamic country is forced to pay the cost of importing new goods by exporting traditional goods at inappropriate prices, and is therefore able to make massive investments to modernize production units, etc. It will not increase dynamics. On the contrary, when different countries have similar dynamics, considering that innovations introduced in each country are quickly imitated by others, international trade can stimulate overall growth (Uddin, 2021).

1.2.7 Product Cycle Theory

The structure of world trade cannot be well explained by traditional theories of foreign trade. This weakness is particularly obvious when attempting to explain the world trade in industrial goods. Standard theories were unable to account for the increase in industrial product exports from several developing nations to international markets after the 1970s. The shortcomings of traditional systems to this issue have led economists to do new research. The theory of Product Cycle Theory is the most significant of these (İşgüden and Akyüz , 1990 : 47-58).

This theory was created by Raymond Vernon and is primarily based on the technology gap theory. There is usually a big gap between theoretical knowledge, scientific principles and using them in the production of new and marketable products (Vernon, 1966). Raymond Vernon in the mid-1960s presented the product cycle theory. According to Vernon, because different inputs utilized in the creation of a product have distinct comparative advantages in different nations, the product's comparativeadvantage may change simultaneously with changes in the inputs during the span of the product's life cycle (Karluk, 1998.83-91).

According to the theory of product cycles, a new product goes through a series of stages before reaching the level of a standard product, revealing new features at each stage. Every period had a different position for the product in question in international trade (Yilmaz, 1992 : 211-213).

According to Vernon, a product goes through five stages over its product cycle. The theory states that new goods are initially produced on a small scale. As production moves forward, production-related issues are fixed and the product is created. Finished goods are introduced to the domestic market in the first phase. Technology and product form are being evaluated. Not for export, but rather to satisfy domestic market need, production is emphasized. Additionally, production should begin close to where the consumer is. due to the fact that they are the ones who support the growth of the goods. As only domestic companies have the new technology in this case, production takes place in the country of the innovator. Costs associated with research & development are now high. As a result, a new technological advancement is used to begin the manufacture of the related good.

The uncertainty and the relatively small local market prevent the start of mass production. Because of this, the ratio of labor and capital are smaller in the early phases than in the later ones. The second stage sees the product almost at its full maturity. At this point, production of recently introduced and successfully sold new produced goods is increased domestically. Prior to beginning exports, sales are focused on the domestic market. As a result, domestic production and consumption of the good both rises. However, because there is a rising demand outside, the rate of output growth is significantly higher. The good is prepared for mass production at this point. The product's technical specifications and manufacturing methods are now widely used, and there are more companies marketing the same product. The third stage sees the widespread and standardized adoption of production technology. The production process has been simplified and divided into successive phases. The innovative company has begun to see both internal and external technology licensing as financially beneficial. To lower the cost of standard production, production is moved to countries with low production costs in the fourth stage. As low-cost new producers that have received their financial licenses take over the export markets, the inventive country's export growth rate declines. In the fifth stage, imports start to replace domestic production as a way to supply the domestic market of the innovative country. The technology has now reached every country in the world. Product life cycles end when the innovative nation is totally unable to compete on its own home market. The analysis of the time interval between the innovator country starting production and the production of other countries following it is the same as in the technology gap theory.In general, this time interval varies depending on economies of scale, customs tariffs, transportation costs, the breadth of local markets and income elasticity of productdemand (İşgüden and Akyüz, 1990: 47-58; Uddin, 2021).

This theory states that technical advancements lead to the creation of new or improved versions of existing products as well as new ways to produce them. Due to the significant expenditures associated with technological developments, high-income countries typically produce new items first. Over time, the product develops and expands to other nations. Production moves to low-wage developing countries after the new product becomes the standard. This theory can be viewed in this context as a type of Hecksher-Ohlin theory applied to the technological development paradigm (Iyibozkurt, 2001: 17-103). The main point of this theory is that the rate of diffusion of new technology should be low in order to create temporary differences in production technology between countries (Lam, 2015).

The production cycle theory has been used in the analysis of the growth of many products in America (Markusen 1985; Rees 1979), but the main criticism of this model is that the production cycle theory is deterministic, although this theory emphasizes the company's strategy and changing the nature of demand, but when a new product is produced, it can be transferred from one stage to another without stopping, and the successive patterns of trade and the place of production do not change (Leichenko, 2000; Lam, 2015). The theory ignores the fact that entrepreneurs will initially develop goods for domestic consumers of which they are aware in a world of "imperfect knowledge"—in terms of lack of knowledge about products, tastes, competitors, etc.— in foreign markets. A successful business expands as it grows, and the local market can no longer support that growth. The company steadily broadens its trading window. The entrepreneur does not become aware of the profit prospects presented by producing for overseas markets until after what has likely been a lengthy time of producing for the domestic market. It won't be until then that we reach the export market (Uddin, 2021).

1.2.8 Product Differentiation Theory

The assumption of perfect competition in traditional theories of foreign trade leads to the conclusion that the goods involved in international trade are homogeneous. The same good cannot be exported or imported if the goods are homogeneous. The large majority of industrial goods do not adhere to the homogeneity assumption inactual life. Even though a company's product is of similar quality to others, there may sometimes be a perception among consumers that the product is special. This is enough to differentiate products. It is vital to take into account product differentiation and the intra-industry trade it supports in in order to understand the trade in industrial goods. Krugman and Lancester (1983) created the initial version of the foreign trade model, which was based on the concepts of increasing returns to scale and product differentiation. According to the assumption of product differentiation, a company's product is not a perfect substitute for the goods produced by other companies already in the market or by potential new competitors. Because of this, companies are given monopoly power and behave like monopolistic companies with downward-sloping demand curves. Because there are so many businesses and a wide range of products, there is no oligopolistic competition between them (Akkoyunlu, 1996: 71-99).

Product differentiation and economies of scale, intra-industry trade, and monopolistic competition theories are closely connected concepts. If product differentiation is accompanied by decreasing costs to scale, intra-industry trade becomes simpler to understand. Increasing returns to scale are achieved at relatively low levels of production. For this reason, product differentiation is developed in each industry area and each producer produces the same product in different ways. The many countries in the world have various tastes and preferences. Therefore, consumers want to be able to choose from a wide range of goods. Even though the goods essentially satisfy the same need, there are variations between them. In these conditions, each country starts to produce goods that satisfy various tastes and are specialists in a specific area. Inter-industry trade can thus serve to the diverse tastes of people living in many countries. As a result of the trading of various goods, two unique gains result from trade. First of all, through international trade, consumers can purchase a greater range of consumer goods. Second, as returns increase, unit costs and dollar prices are decreasing (Karluk, 1998: 83-91).

Producers would specialize in the manufacturing of certain goods in the case of product differentiation and returns to scale since it is not feasible to produce all variations of a good in order to satisfy the demand for differentiated products because of cost disadvantages. Due to production's economies of scale, a country can only manufacture a certain number of different sorts of things. Each type of the good will be manufactured in a single nation if each company produces only one variation of it. The two countries' intra-industry trade is supported by the demand for each type of product. The relative size of countries has become a key factor in determining trade because differentiated goods produced by rising returns to scale between countries are subject to intra-industry trade. The volume of foreign trade is not dependent on the relative size of the countries in traditional theories of international trade, which assume thathomogeneous goods are produced under conditions of constant returns to scale, with the exception of differences in the factor compositions of the countries (Akkoyunlu, 1996: 71-99).

The evolution of multinational companies into international corporations spreads the production inputs among countries based on the cost of the factor and establishes a wide production network. The parts that will make up the same product can be produced in various countries. A vertical specialization results from this. Industrial items also have horizontal specialization because they are truly different goods with distinct demand curves, although being manufactured under the same name. The fact that the goods are demanded using the company name rather than the functional name indicates that they are not the same things when taking into account the quality and usage characteristics (Ertürk, 2001: 41-47).

All businesses benefit from an increase in consumers thanks to foreign trade. Because businesses in each country specialize on a particular type of product that the general public values the most. It is exceedingly expensive to produce on a small scale in the country to respond to the desires of the minority. As a result, the minority's preferences are similar to those of the majority of other countries. So, foreign trade covers it by imports from other countries. As a result, customers can buy the different types of goods made by companies all over the world. By concentrating on a small number of different sorts of businesses, it gains from economies of scale in this industry. Additionally, economies of scale are essential in explaining intra-industry trading in differentiated goods (Seyidoğlu, 2003: 87).

1.2.9 Competitive Advantage Theory

Competitive Advantage Theory was developed by Michael E. Porter. The most important aspect of this theory is that it addresses the conditions necessary for a multinational firm to achieve international success. Porter argues that companies, not particular nations or countries, are actually in competition with one another on the marketplaces for goods and services. The main point that needs to be emphasized is the determination of international competitiveness for companies, even though it is crucial for nations in terms of the industries and firms of those countries' international competitiveness, specialization in production, employment, and foreign trade balance. Comparative advantage, as it has been understood since Ricardo, and international competitiveness are two separate ideas. A country will undoubtedly have a relative cost advantage in some of them, and there may be some commodities or sectors that it can export abroad, according to the principle of comparative advantage, even if it has an absolute cost disadvantage over its foreign competitors in all goods or sectors. However, businesses or industries that lack international competitiveness will eventually disappear from the market (Porter, 1990: 9). This theory proposes that countries or governments do not compete with one another over product cost or quality. In a world economy that is becoming more interconnected, countries compete with one another to trade more commodities, services, and capital in an effort to attract more multinational corporations. In this situation, governments' decisions on foreign trade should be focused on building a reliable and extensive network of transportation and communication, rather than on factors that only give temporary competitive advantages,such access to cheap labor. A domestic company is superior to other businesses in terms of non-price aspects like product price, product quality, punctuality in delivery, and after-sales service since it is both domestically and internationally competitive in other markets. In this definition of international competitiveness, price competition and non- price competition are listed as two types of international competitiveness (Kibritçioğlu, 2005: 1-11).

International competitiveness is linked to a flexible production system by the idea of non-price competition, which is closely related to quality. Microelectronictechnology has been used in production, and this has led to the emergence of a whole new production system. Instead of focusing on economies of scale, a flexible manufacturing system highlights economies of scope.

The emergence of economies of scope explains why many companies differentiate their goods today; both in comparison to goods from other companies and within the same company, and compete on quality rather than on price (Kibritçioğlu, 2005: 1-11). Thanks to flexible production technology, it is possible to produce two different products or more than one model of a product in the same facility at a lower cost than the production to be made separately in different facilities with the use of similar inputs. The scope is economical thanks to foreign trade. In addition to lowering manufacturing costs, the flexible production system also improves product quality (Öztürk, 2009).

1.3 Foreign trade policy

Complete free trade is a theoretical model that only serves to illustrate the potential benefits of international commerce. All nations in the world carry out their foreign trade policies in accordance with their own interests, get involved in trade for different reasons, and occasionally even apply different restrictions. Foreign trade policies are described as measures used by nations to regulate their international business dealings or, in a more specific sense, their international commerce in a manner that serves country's interests (Öztürk, 2009).

The set of actions taken by countries to promote or discourage foreign trade, or to regulate how such trade is conducted, is what is referred to as their foreign trade policy. While developed nations use trade policies to lessen the damaging impacts of imports on their industries, developing nations use these same tools to achieve their owneconomic development and narrow the gap between their level of development and that of developed countries. Foreign trade policy is a mechanism used to assure economic development in developing nations. In these countries, the economic structure determines the foreign trade policy, and the industrialization methods are also based on the actual international trade policy. In this context, foreign trade policy is a tool for developing economies in developing countries (Öztürk, 2009).

Customs tariffs, non-tariff instruments, export incentives, and related trade, which are some of the most significant tools of foreign trade policies, are introduced in this section after first listing the objectives of foreign trade policy.

1.3.1 Objectives of Foreign Trade Policy

The primary objectives of foreign trade policy are the elimination of balance of payments deficits, protection of domestic industries from foreign competition, economic development, the elimination of market failures, self-sufficiency (autarky), maintenance of domestic economic stability, liberalization of the economy, providing the public revenues necessary for financing development, benefiting from the monopoly power in the foreign market and other purposes (Seyidoğlu, 2003: 118-119; Karluk, 1998: 135).

1.3.1.1 Balance of-Payments Deficits

Imbalances in the balance of payments are currently one of the key issues facing both developed and developing countries. For the purposes of foreign trade policy, eliminating foreign deficits is crucial, particularly in countries with deficits. Because chronic deficits reduce the country's foreign exchange reserves and its ability to borrow money again. In these countries, the goal of foreign trade policy is twofold: on the one hand, to reduce imports and boost exports; and on the other, to minimize the country's current account deficit by attracting foreign capital and investment. However, these policies are implemented the other way around in nations having surpluses in their balance of payments, with the goal of eliminating those surpluses (McCombie & Thirlwall, 2016).

1.3.1.2 Protection of National Industries Against Foreign Competition

In terms of production technology, facility scale, skilled labor, standardization, and marketing opportunities, newly founded companies in developing nations find it extremely difficult or even impossible to compete with mature industries in developed countries. As a result, countries that with underdeveloped industries must protect their rapidly growing industries until they are strong enough to withstand competition. The national industrial sectors, which have long-term export potential in the country but are newly developing and therefore operating at high costs, are protected from the damaging effects of foreign competition by governments by following policies and procedures such as import taxes, quotas, multiple exchange rates, and even import bans (Lin & Chang, 2009).

1.3.1.3 Economic Development

Foreign trade policy has emerged as the most crucial development tool for developing countries. Import substitution and another external industrialization plan focused on exports are two tactics used to achieve economic development. The newly developed industry is protected from foreign competition by the countries that employ imported substitution based on the industrialization plan. One of the crucial aspects of foreign trade strategy in developing countries is the restriction of imports of luxury consumer products through the use of intermediate and investment commodities from temporary exchange reserves. The countries that have adopted export-based industrialization seek to finance economic growth through promoting exports. The only essential and necessary requirement for progress is that there be enough foreign currency in the country (Alavi, 2006).

1.3.1.4 Elimination of Market Failures

For a variety of reasons, certain currently operating businesses within the nation may considered monopolies. Consequently, this is the best strategy to undermine the monopoly power of firms in responsible of the supply of goods. removing any import limitations and facilitating the import of goods whose supply is under the control of the companies in question. If any country has a single monopolistic product market (monopoly) or a multiple-demand monopoly (oligopoly). Customers must pay high costs for inferior products. Producers in monopoly marketplaces produce fewer things and sell them for higher prices than they would in other markets. This is because the political powers are trying to protect the consumers, deduct customs tax and bring imported goods into the country that are sold cheaper than the goods produced in conditions of imperfect competition. Thus, internal monopolies and oligopolies can put an end to the power of the market over other markets. In this context, increasing competition in the domestic market helps to use production resources more rationally (Cantwell, 2000).

1.3.1.5 Self-Sufficient

Autarchy refers to pursuing a self-sufficient economic strategy and isolating one's economy from cross-border trade and capital flows. This idea is supported by the belief that the country will suffer from its economic and political dependency. Some countries limit their trade contacts with other countries by adopting the autarky policyas a condition of their economic and political systems. It restricts all imports and is willing to use solely domestic resources. The goal is to reduce economic relations with the outside world by producing as much as possible domestically. This is one of the most extreme aims of foreign trade policy. Today, there is no country that implements a full autarky policy for this purpose (Zhang, 2003).

1.3.1.6 Ensuring Domestic Economy Stability

A country must maintain its internal balance in order to maintain its internal stability. Unemployment and inflation are brought on by the internal balance's worsening. By moving production from imported goods to domestic goods using customs duties and quotas, it is hoped to raise employment levels when trying to solve the unemployment problem through foreign trade policy. For whatever reason, when inflation is a concern in a country, governments attempt to stop it by turning to international trade policy and making it easier for goods with rising costs to be imported. In this situation, the rapid rise in inflation is stopped and the general level of prices stabilizes thanks to the removal of supply constraints (Bean, 2009).

1.3.1.7 Liberalization of the Economy

The goal of the foreign trade policy is to liberalize trade by reducing barriers to foreign trade. Therefore, countries focus on completely free foreign trade and the theory of comparative advantage in order to maximize the benefits from the international division of labor. The amount of international trade has significantly increased in recent years as a result of the liberalization of international trade and foreign exchange regimes. The foreign trade policy has had a significant impact. Foreign trade liberalization involves managing and carrying out transactions in accordance with global trading standards and regulations (Mansfield & Reinhardt, 2008).

1.3.1.8 Providing Public Revenues Required for Financing Development

There are very few resources available to finance development in developing nations. Tax revenues are generally extremely low in developing nations where the majority of the population works in agriculture, making it very challenging to impose new taxes. Export taxes on traditional export goods provide money for development. Import and export taxes are a significant source of revenue (Collier et al., 2010).

1.3.1.9 Benefiting from Monopoly Power in the Foreign Market

A country may impose a quota on the export of a commodity if it holds a monopoly position in the production of that commodity and wants to alter the terms of trade in its favor. In this situation, the price of the good will increase and, as a result of the price increase, the terms of trade will alter in favor of the quoting country (Deardorff, 2014).

For purposes of social reasons and national security, governments may restrict foreign trade. Being self-sufficient in the production of military vehicles and equipment is the primary goal of all countries in terms of national security. In this situation, nations may impose limitations on or prohibitions on the importation of strategic military equipment. For the country's defense, some industrial protective measures are implemented. Governments may also put limitations on the import of goods made by some manufacturers they want to protect for political reasons (Bağcı & Kurç, 2017).

1.3.2 Tools of Foreign Policy

To achieve certain economic objectives, decisions about foreign trade policy must be made and put into action. Similar to economic policy, foreign trade policy involves governments employing a variety of tools to influence the volume,composition, and content of global trade as well as the movements of other factors. Customs tariffs are the most important element in foreign trade policy. However, new tools for controlling foreign trade have evolved over time in conjunction with theexpansion of international relations. Quantity restrictions, tariff-like factors, invisible barriers, voluntary export restrictions, export promotion, and tied trade are examples of non-tariff tools (Öztürk, 2009).

1.3.2.1 Custom and Tariffs

One of the first tools of foreign trade policy is customs tariffs, which are widely used in many countries. The table that displays the tax rates on imported goods as they enter the country is called a customs tariff. Both bilateral agreements between countries and the parliament or the government have the right to impose unilateral customs tariffs. Autonomous tariffs are those that are established unilaterally, and contractual tariffs are those that are established through agreements. The purpose of customs tariffs is to protect domestic industries. Customs tariffs raise domestic prices for imported goods while protecting domestic producers who make them from foreign competition. Protection from tariffs is based on how much the tariff limits imports. Tariffs must be sufficiently high to provide protection. The decrease in imports that customs duty bringsis its most significant consequence. The decrease in imports causes a shift in total spending from foreign to domestic goods. An increase in domestic production results in more jobs being created and less unemployment. Customs taxes are a tool used to raise the level of employment in countries with high unemployment rates and underemployment. Customs tariffs have a number of positive effects, including protecting domestic industries from foreign competition, generating revenue for the government's treasury, lowering the amount of foreign currency due to import restrictions, and ensuring that income is transferred from the consumer to the producer (Milner & Kubota, 2005).

However, when there are customs duties, the import price of the items rises while domestic manufacturing rises, protecting the domestic market from foreign competition. The conservation effect or the production effect are two names for this phenomenon. Imports will decline as customs duties rise, which means that tax income will likewise decline. Consumption will decline, which will lead to a fall in imports, because the customs tax increases the price of imported items by the amount of the applied tax. The balance of foreign payments will be balanced even though the declinein imports will result in a decline in the amount of foreign currency that leaves the country as a result of imports. The shift of national revenue from the consumer to the producer is another effect of customs tax. The distribution effect is the term referring to this phenomenon. When imports are subject to high tariffs, exporters in foreign markets will be prepared to accept lower prices in order to sell their products. As a result, the country will benefit from changing foreign terms of trade. Customs duties must fulfill a number of requirements in order to improve the country's trading terms. First so first, importing countries should be major importers. To put it another way, it must bechallenging for the exporting country to find new markets for its products while the importing country restricts its demand. The elasticity of supply of foreign export goods should be low. If the exporting country can quickly respond by reducing its production, it won't need to offer financial discounts if the importing country lowers its demand. Other countries shouldn't retaliate to heavy tariffs with retaliation (Erceg et al., 2018).

1.3.2.2 Non-Tariff Tools

The most important non-tariff tools are quantity restrictions, tariff-like factors, invisible barriers, and voluntary export restrictions (Seyidoğlu, 2003: 120; lyibozkurt, 2001: 167).

Quantity Restriction

This covers procedures based on the State directly limiting imports at a certain volume. These include foreign exchange control, import quotas, and import bans. Import quotas are limitations on the amount or monetary value of goods that may be imported into a country over a specific period. When it comes to protecting the domestic industry and reducing the deficit in the balance of payments, quotas are more effective than customs tariffs. The impact on distribution and consumption is identicalto that of customs tariffs. Importers who supply import permits might make significant profits by creating a monopoly because the prices of imported items on the domestic market will rise excessively as a result of quantitative limits on production. Some quotas just consider the quantity of goods being imported; they do not take into account the country or individual importing the goods. Global quotas are the name for such quotas. Global quotas are particularly hard to enforce. Monitoring the quantity of goods entering the country through each border gate and making sure the requirements are metare nearly impossible. It's possible for an import to be realized over the quotas because the control won't be fully realized (Krueger, 1998).

Furthermore, because there is no differentiation between importers, those who apply first and act quickly will receive the largest share of the quota, while others who truly need it may not. Here, quotas can be distributed among importers in accordance with certain criteria to eliminate all the inconveniences. Here, quotas can be distributed among importers in accordance with certain criteria to eliminate all the inconveniences. Such quotas are called allocated import quotas. Application of allocated quotas isfacilitated by the licensing system. Import bans include a complete ban on certain goodsentering the country from abroad. Many commodities, especially luxury consumer goods, are prohibited from entering many countries, especially those that have a foreign currency bottleneck. It is possible to ban the entry of imported items of the same kind into the country, particularly to protect newly emerging industries. In addition to these economic barriers, it has been noted that import bans may be imposed for ethical, political, or health objectives (Abbott, 2002).

Foreign exchange control means that weak-currency countries leave the free-foreign-exchange system and engage in country currency exchange. All foreign money entering the country from overseas is bought by the Central Bank or the banks authorized by this Bank, and the Central Bank provides people in need with the foreign currency they want for various requirements such as imports, tourism, etc. To buy foreign currency from the Central Bank, importers must first get a license (license) from the foreign exchange department. Foreign exchange control is artificially maintaining a high value for the domestic currency and applying foreign exchange fixes on official transactions. In countries that use foreign exchange controls, there is always a discrepancy between the official value of money and its actual purchasing power. In thissituation, those in need of foreign currency often force their way into opportunities to find it, which can lead to smuggling and the development of a black market for foreign exchange. There may be unfavorable outcomes in terms of resource allocation because these actions bypass the price process and pass the decisions of public authorities (Guo, 2008).

Tariff-Like Factors

Restricting free trade through the price mechanism, tariff-like variables include policies like customs duties that raise the cost of imports and boost the profitability of domestic manufacturing. Among these are import guarantees, offsetting taxes, anti-dumping taxes, multiple exchange rates, subsidies granted to industries that replace imported goods, and domestic contribution obligations. The foundation of import guarantees is the requirement that importers deposit a portion of their import costs with the Central Bank. These deposited money are held as collateral until the import is completed and are repaid after completion. The fact that the money is kept at the central bank without earning interest until the import is realized causes the importer company to have a liquidity issue, and as a logical result of this condition, import guarantees have a stifling impact (De Melo & Shepherd, 2018).

Tax elimination is one strategy used to defend import-competing sectors. In this instance, the government sets a high domestic price that serves as the minimum import price for producers in the areas it wants to protect. The high prices anticipated by domestic producers will not be able to be maintained if imports are permitted at low international prices under free trade conditions. Political governments so profit from the elimination tax, i.e., they imposed import taxes equal to the gap between the domestic support price and the low import price on the relevant items. The common agricultural policy of the EU is the most typical example of offsetting taxes. To equalize world pricing with these high prices, the EU uses differential taxation after setting highsupport prices to defend its own manufacturers (Anderson & Tyers, 1995).

On the other hand, an anti-dumping tax is a sanction used against countries that engage in unfair trade practices like dumping. Dumping occurs when big businesses in a country sell their products at a loss on international markets. Price differentiation is used in both the domestic and international markets as a result of dumping (Prusa, 2005).

Producers may want to sell their excess stock goods in the foreign market at a price that will only cover variable inputs if stocks rise excessively as a result of the temporary slowdown in sales in the domestic market caused by factors like low demand in the economy, changes in tastes and preferences, etc. This method of dumping is known as sporadic dumping. In some cases, big, strong companies in order to drive out competitors in foreign markets will lower their prices so low that their competitors are unable to sustain. As a result, once those competitors leave the market, the companywill see excessive price increases as a result of monopolistic behavior to make up forthe losses they suffered during the low-priced sales period. The issue of persistent dumping is raised by the fact that businesses routinely sell their goods in foreign markets for less price than they do in home markets. Continuous dumping is carried out to maximize profits in monopolistic behavior. Companies strive to increase their production volume with such dumping in order to benefit from economies of scale. In this situation, they use domestic sales to pay for their fixed costs and keep selling aslong as they can get a price that is at least as high as their marginal cost overseas. Dumping-prone imports have a negative impact on the domestic industries of countries that use a market economy and greatly liberalize international trade. Domestic producers who make products in the country suffer when dumped goods enter the market. To combat the unfair competition brought on by the importation of goods subject to dumping on domestic industries, several nations adopt to legal regulations. An anti-dumping tax is imposed on the price decrease brought about by dumping in order to prevent the negative impacts of this situation (Akın, 2004: 257-258).

A country's political ability to set various exchange rates for international trade involving various goods and services is represented by multiple exchange rate systems. Multiple exchange rates can actually take on complex shapes in reality. The use of a distinct exchange rate for practically every transaction group is the most commonexample of this. For instance, multiple exchange rates may be used to determine the value of agricultural goods, industrial goods, tourism revenues, and worker remittances. This method prevents the import of these items by applying a high exchange rate to some of them, while indirectly promoting their export by applying a low exchange rate for some goods. The majority of the time, multiple exchange rate systems are put into place alongside foreign exchange controls, quotas, import bans, etc. Another way for protecting domestic industries from foreign competition is to provide subsidies to import substitution industries. Foreign trade policies are not just implemented in a way that limits imports; on occasion, subsidies may also be offered to increase the volume of foreign trade and support exporters. Subsidies refer to the unrequited aid provided by the state to individuals or institutions in the form of money, goods and services. Production is now a global thing. Every part of goods that are traded internationally comes from the country where it is made, at the lowest possible cost and with the highest standards of quality. The requirement to contribute on a home level contrasts with the goal of enhancing global resource efficiency (Seyidoğlu , 2003 : 181).

Invisible Barriers

These measures consist of administrative and technical rules and standards that the government has passed for purposes like protecting the public's health, the environment, or public safety. They are a type of international trade barrier in the sense that they restrict foreign trade, although having different goals. These barriers are multiplying quickly in number today. These tactics can occasionally have the effect of a hidden foreign trade barrier, which is why they are known as invisible barriers. Sometimes these measures constitute an invisible mechanism that protects domestic producers against foreign competition. For example, the USA imposed a ban on the beef it bought from Argentina on the grounds that it had an anthrax microbe, and applied the same ban to mutton. However, this disease has never been found in sheep in Argentina (Seyidoğlu, 2003: 173).

Voluntary Export Restrictions

These limitations are a form of quota application intended to restrict the export of goods by the producer countries on the justification that doing so disturbs the market of the importing country. They differ from import quotas in that they are imposed on one side based on an agreement between the importing and exporting countries. These are likewise known as export quotas. As a consequence of bilateral discussions between the exporter and the buyer of a good, voluntary export limitations are a tool for international trade policy that restricts exports to a specific quota. Such limitations are imposed on some industrial products with a high labor intensity that are sold to developed countries, particularly by developing nations. The main products in concern are those from the textile, food, shoes, and ready-made clothes industries. Agents for these industries in developed nations, which are unable to compete with developing countries, seek the government to implement protective measures on the basis that exports from developing countries to them distort their local markets. These producers exert pressure on the political power since they have a substantial political voting potential. By engaging in mutual discussions with the developing nations that export the aforementioned items, the political power also secures export restrictions. Although voluntary export limits appear to have the aim of regulating domestic markets in industrialized nations, their primary objective is really to protect domestic industries against foreign competition of developing countries (Kemer, 2003b: 22-23).

Promotion of Exports

In order to promote exports and foreign exchange earnings in the short term and move the nation's resources to the export industry in the long term, the state intervenes in foreign trade by encouraging exports as a tool for foreign trade policy. Depending on their economic situation, countries might implement a variety of export promotion methods (Demir , 2003 : 1).

Priority should be given to encouraging investment and production in order to maintain a steady and ongoing increase in exports. Issuing exporters premiums, allocating foreign currency, using different exchange rates, giving tax refunds, awarding tax exemptions and tax reductions, and getting advantage of low interest credit facilities are a few of these. Many countries promote exports in an effort to boost exports, reduce or eliminate their balance of payments deficits, and retain their competitiveness in a select few product categories. The stable and continuous implementation of foreign trade policies in line with economic development plans is necessary to achieve the expected economic effects from export incentives. Even if increasing exports is not the only factor in supporting sustainable economic development, it can have a significant impact on how that progress is realized (Özcan, 2001: 23; Kemer, 2003b: 6).

In this context, it is crucial to protect exports from dependence on specific country groups, implement a reasonable exchange rate strategy, create opportunities for export financing, and minimize bureaucratic obstacles (Öztürk, 2009).

SECTION 2: FOREIGN TRADE BETWEEN TÜRKIYE AND IRAQ FROM 2003 TO 2022

In this section, data related to this research will be presented. The databases of Turkstat, which offer a sufficient degree of information and data on Türkiye's national accounts and international trade statistics, were used to collect all the data for Türkiye in this study. This focusing on one reliable data source rather than a number of them makes it simpler to produce results that are more cohesive. However, for Iraq, it was difficult. Unfortunately, there is no website and database similar to Turkstat for Iraq, the data related to Iraq are taken from the websites of the World Bank, InternationalMonetary Fund, The Observatory of Economic Complexity and other reliable global sources.

2.1. Foreign Trade of Türkiye from 2003 to 2022

Türkiye's open economy policy has led to an increase in foreign trade, and this is in line with the opinion of many economic researchers who emphasize that Türkiye should pay special attention to foreign trade in order to avoid falling into the middle-income trap (Kesgingöz and Dilek, 2016). Globalization has caused the economy of countries to be more connected to each other than before, and global economic crises affect all countries, as well as the special events and problems of each country or region also affect foreign trade. Türkiye is not an exception to this issue and viewing the data table of Türkiye's foreign trade shows many cases. Türkiye's foreign trade has generally grown in this period. In order to understand the foreign trade of Türkiye from 2003 to 2022, it would be good to look at general outlook of the country’s foreign trade in table 2.1 and figure 2.1.
Table 2.1 shows foreign trade of Türkiye from 2003 to 2022. The Volume of foreign trade of Türkiye showed a continuous increasing trend, except for the years 2009, 2015, 2016 and maybe in 2022. It is seen that Türkiye’s foreign trade volume has increased steadily in general, although there are decreases in some years compared to the previousyear. The foreign trade volume, from 2003 after the 2001 crisis, increased until the 2008global crisis period. The effect of the global crisis that took place in 2008 decreased the trade volume in 2009. Usually, global demand and foreign trade volume declined with the financial crisis, and a new mercantilist (protectionist) period took hold. Protectionist measures were put in place at this time to boost exports rather than decrease imports

(Saray & Çeker, 2019, pp. 224–226). In addition, it is seen that the balance of foreign trade is negative throughout the relevant years. This result reveals that the Turkish economy is dependent on imports and has to import in order to export. The table indicates that as of 2021, Türkiye's foreign trade volume was approximately 496.7 billion dollars. Türkiye's contribution to international trade has increased due to this number.

Table 2.1 Foreign Trade of Türkiye from 2003 to 2022

Years	Volume of Foreign Trade (US Dollar)	Change (%)	Volume of Foreign Trade (2003 =100)	Balance of Foreign Trade (US Dollar)
2003	116,592,528,360	---	100	-22,086,855,756
2004	160,706,918,788	37.8	137.8	-34,372,613,148
2005	190,250,559,050	18.4	163.2	-43,297,742,764
2006	225,110,849,666	18.3	193.1	-54,041,498,630
2007	277,334,464,405	23.2	237.9	-62,790,964,597
2008	333,990,769,735	20.4	286.5	-69,936,378,483
2009	243,071,033,814	-27.2	208.5	-38,785,808,608
2010	299,427,551,036	23.2	256.8	-71,661,112,668
2011	375,748,545,104	25.5	322.3	-105,934,807,444
2012	389,006,877,465	3.5	333.6	-84,083,404,353
2013	403,463,887,197	3.7	346	-99,858,613,023
2014	399,787,274,763	-0.9	342.9	-84,566,959,383
2015	351,073,230,044	-12.2	301.1	-63,395,487,188
2016	341,147,818,855	-2.8	292.6	-56,088,651,239
2017	390,792,591,648	14.6	335.2	-76,806,710,820
2018	390,967,707,937	0.0	335.3	-55,126,481,027
2019	374,169,264,126	-4.3	320.9	-31,239,374,940
2020	389,154,562,148	4.0	333.8	-49,879,051,528
2021	496,640,011,070	27.6	426	-46,211,094,994
2022*	459,401,328,818	-7.5	394	-83,096,830,822

* - Data is till the end of September 2022.

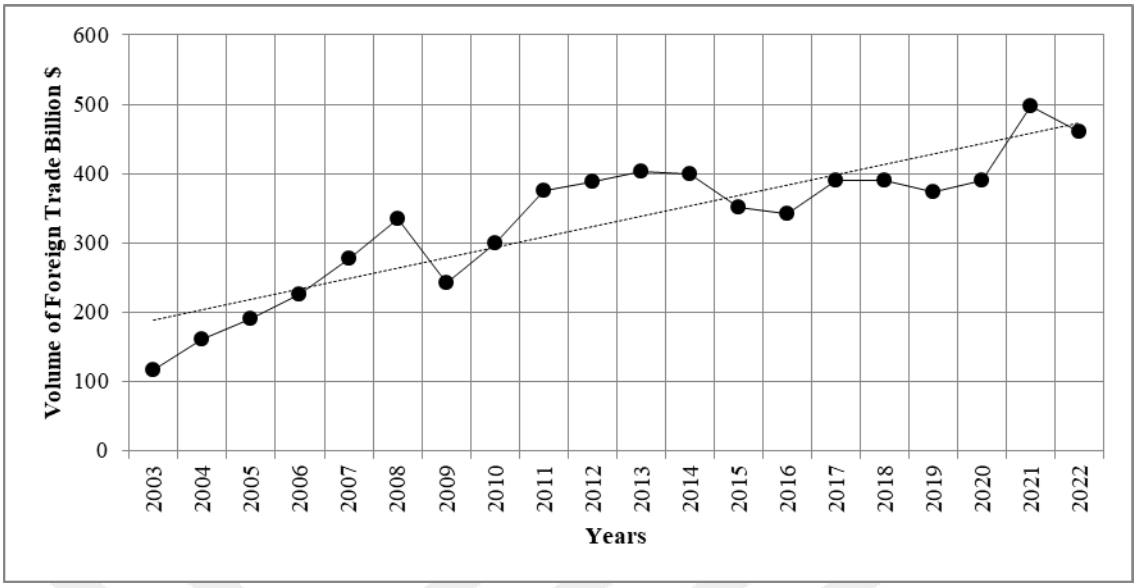

Figure 2.1 Türkiye Total Foreign Trade during the period 2003-2022

2.1.1 Export of Türkiye from 2003 to 2022

In 2020, Türkiye ranked 38 in the Economic Complexity Index (ECI 0.58), and 29 in total exports ($170B) (The Economic Complexity Index -ECI, 2022). As it seen in table 2.2, the Türkiye’s export has increased steadily in general, although there are decreases in some years compared to the previous year. Looking at the general increase, it is seen that while the country’s exports were 47.2 billion dollars in 2003, it increased to 225.2 billion dollars in 2021. The year 2021 was the highest export in the history of Türkiye and it was a new record. The country's exports in 2021 totaled 225.2 billion dollars, the greatest amount ever recorded in the Republic's export history. It is evident that the nation's industrialization program, which is export-focused, is successful in raising exports.

The export from 2003 increased until the 2008 global crisis period. The effect of the global crisis that took place in 2008 decreased the trade volume in 2009. According to 2009 data, the global financial crisis had a negative impact on all countries, including Türkiye, in 2009. Türkiye's exports fell in 2015 and 2016 as a result of the world's economic decline. Addition to these reductions’ extraordinary events such as FETÖ (the Fethullah Gülen Terrorist Organization) terrorist coup in 15 July 2016 causes decrease on Turkish exports. Table 2.2 shows Türkiye's exports data for the mentioned periods. Itis seen that Coverage Ratio are consistently around 0.60 which states imports higher than exports throughout the relevant years.

Table 2.2 Türkiye's Exports from 2003 to 2022

Years	Export (US Dollar)	Change (%)	Export (2003 = 100)	Coverage Ratio (Export/Import)
2003	47,252,836,302	--	100	0.68
2004	63,167,152,820	33.68	133.68	0.65
2005	73,476,408,143	16.32	155	0.63
2006	85,534,675,518	16.41	181.01	0.61
2007	107,271,749,904	25.41	227	0.63
2008	132,027,195,626	23.08	279.41	0.65
2009	102,142,612,603	-22.64	216	0.72
2010	113,883,219,184	11.49	241.01	0.61
2011	134,906,868,830	18.46	286	0.56
2012	152,461,736,556	13.01	322.65	0.64
2013	151,802,637,087	-0.43	321	0.60
2014	157,610,157,690	3.83	333.55	0.65
2015	143,838,871,428	-8.74	304	0.69
2016	142,529,583,808	-0.91	301.63	0.72
2017	156,992,940,414	10.15	332	0.67
2018	167,920,613,455	6.96	355.37	0.75
2019	171,464,944,593	2.11	363	0.85
2020	169,637,755,310	-1.07	359.00	0.77
2021	225,214,458,038	32.76	477	0.83
2022 *	188,152.248.998	-16.46	398.18	0.69

* - Data is till the end of September 2022.

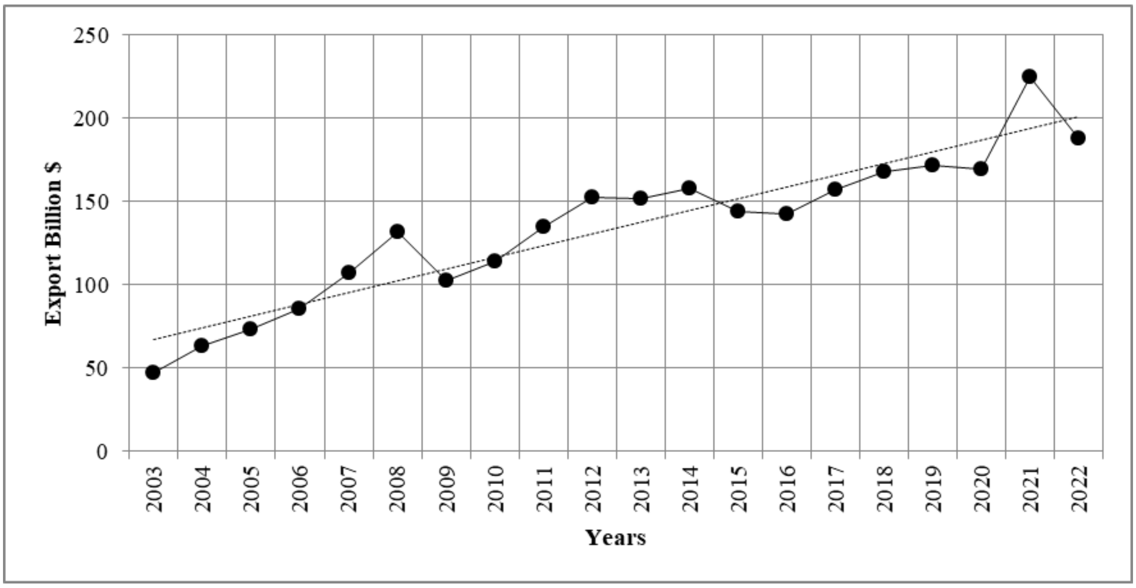

Figure 2.2 Türkiye’s Exports during the period 2003-2022 (Billion $).

2.1.2 Import of Türkiye from 2003 to 2022

Table 2.3 shows the amount of Türkiye's imports and its growth rate. As can be seen in the table, imports have been growing except in some years, and Türkiye's imports have always been higher than its exports. It has been noted that imports fell in 2009, 2012, 2015, and 2016. The global financial crisis of 2008 had a detrimental impact on Turkish imports. Türkiye's imports decreased in 2012, 2015, and 2016 for thefollowing reasons: global economic slowdown and decreased dependence on outside sources.

Table 2.3 Türkiye's Imports from 2003 to 2022

Years	Import (US Dollar)	Change (%)	Import (2003 = 100)
2003	69,339,692,058	--	100.0
2004	97,539,765,968	40.67	140.7
2005	116,774,150,907	19.72	168,4
2006	139,576,174,148	19.53	201.3
2007	170,062,714,501	21.84	245.3
2008	201,963,574,109	18.76	291.3
2009	140,928,421,211	-30.22	203.2
2010	185,544,331,852	31.66	267.6
2011	240,841,676,274	29.80	347.3
2012	236,545,140,909	-1.78	341.1
2013	251,661,250,110	6,39	362.9
2014	242,177,117,073	-3.77	349.3
2015	207,234,358,616	-14.43	298.9
2016	198,618,235,047	-4.16	286.4
2017	233,799,651,234	17.71	337.2
2018	223,047,094,482	-4.60	321.7
2019	202,704,319,533	-9.12	292.3
2020	219,516,806,838	8.29	316.6
2021	271,425,553,032	23.65	391.4
2022 *	271,249,079,820	-0.07	391.2

* - Data is till the end of September 2022.

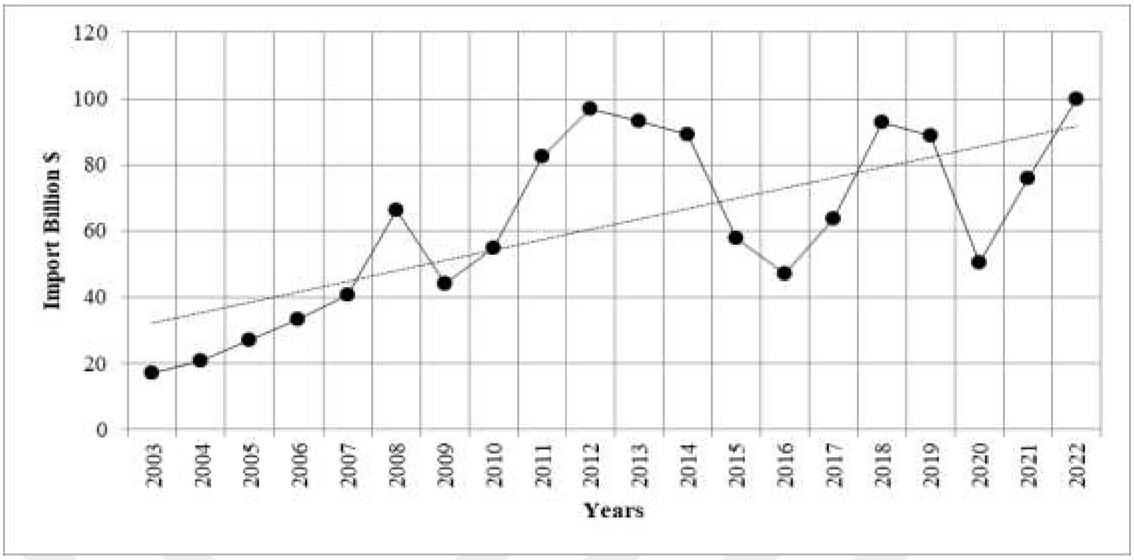

Figure 2.3 Türkiye's Imports during 2003-2022

Table 2.3 and figure 2.3 show Türkiye's import data for the mentioned periods. This result reveals that the Turkish economy is dependent on imports and has to import in order to export. the import value was 69.3 billion dollars in 2003, it became 271.4 billion dollars in 2021. Except for the crisis periods, there was a steady increase, while foreign trade deficits did not reach the desired levels. The most important reason for this situation is the high share of imports of intermediate goods in the foreign trade of the country.

Furthermore, figure 2.3 makes it very evident that throughout this time, imports consistently exceeded exports, demonstrating the imports' dominance over exports.Much though exports have increased quickly, imports have increased even faster, particularly in the previous ten years.

This suggests that either the trade deficit or the foreign trade balance worsened. Table 2.1 shows that Türkiye's trade imbalance widened, particularly beginning in the middle of the 2000s. It went from being around $22 billion in 2003 to reaching $46 billion in 2021.

2.2. Foreign Trade of Iraq from 2003 to 2022

Iraq is relatively open to foreign trade, which represented more than 69% of the country's GDP in 2019 (World Bank, 2022). Iraq has few trade restrictions as a result of the government's recent trade policy, which attempts to integrate the economy of the nation into regional and international markets. The foreign trade in Iraq suffers from a single resource, oil, which brings with it international conflicts and constant tensions. More than 90% of Iraq's exports are crude oil, with the remainder being petroleum products. The primary imports into Iraq include gas and other gaseous hydrocarbons, tubes and pipes, electrical transformers, and automobiles.

Table 2.4 Foreign Trade of Iraq from 2003 to 2022

Years	Volume of Foreign Trade (US Dollar)	Change (%)	Volume of Foreign Trade (2003 = 100)	Balance of Foreign Trade (US Dollar)
2003	33,810,628,177	---	100	120,768,809
2004	44,039,183,025	30.3	130.3	-2,817,476,830
2005	57,819,059,103	31.3	171	-3,520,220,788
2006	58,398,481,007	1.0	172.7	8,086,085,102
2007	65,821,908,809	12.7	194.7	15,730,222,113
2008	106,680,794,263	62.1	315.5	25,797,838,831
2009	87,860,424,263	-17.6	259.9	125,996,306
2010	101,806,300,000	15.9	301.1	7,391,500,000
2011	134,058,000,000	31.7	396.5	30,952,800,000
2012	160,468,759,183	19.7	474.6	33,590,228,157
2013	158,169,300,000	-1.4	467.8	27,961,900,000
2014	157,566,800,000	-0.4	466	20,331,200,000
2015	116,061,052,486	-26.3	343.3	-939,731,609
2016	90,945,500,000	-21.6	269	2,713,500,000
2017	111,920,425,338	23.1	331	15,073,295,270
2018	149,611,868,527	33.7	442.5	35,932,000,423
2019	161,185,400,000	7.7	476.7	16,620,400,000
2020	104,454,490,268	-35.2	308.9	-4,076,908,389
2021*	116,368,550,111	11.4	344.2	34,895,894,111
2022**	149,364,667,266	28.4	441.8	50,100,244,980

*-** - The data for 2021 and 2022 are based on the estimates of the IMF and several other international organizations

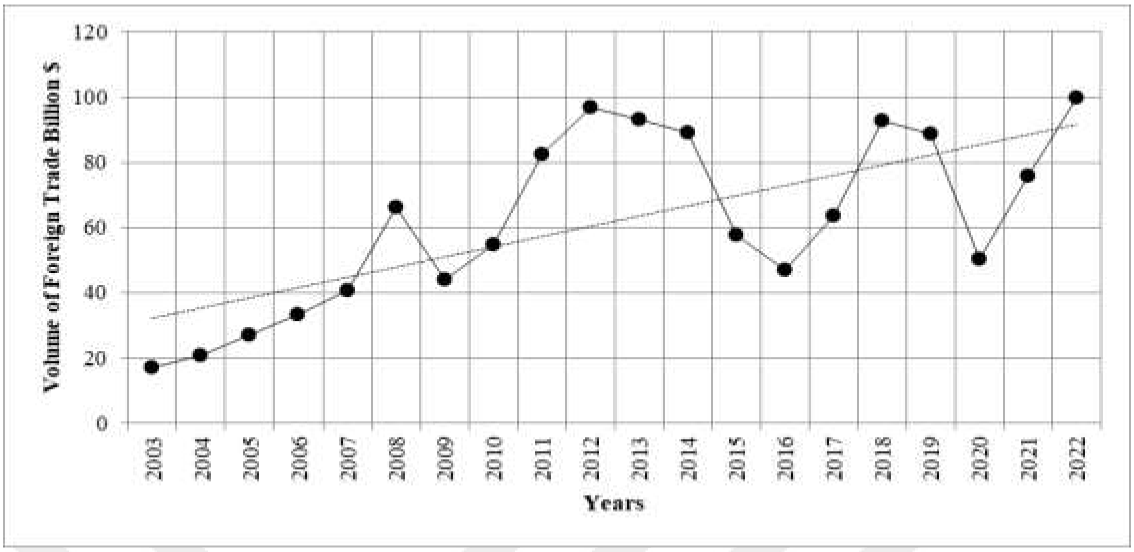

Figure 2.4 Iraq’s Total Foreign Trade during 2003-2022.

As can be seen in Table and figure 2.4, Iraq's foreign trade has generally been growing after 2003, although, like other countries, the global economic and financial crises have also affected Iraq's foreign trade.

2.2.1 Export of Iraq from 2003 to 2022

By value, Iraq’s 3 largest exports in 2021 were mainly crude oil, processed petroleum oils, and unwrought gold. Combined, those 3 main exports represent 97.2% of all Iraqi exports. That percentage reveals the highly concentrated nature of portfolio of exported Iraqi products. In 2020, Iraq ranked 90 in the Economic Complexity Index (ECI -0.69), and 44 in total exports ($58.3B) (The Economic Complexity Index -ECI, 2022)

Table 2.5 Iraq's Exports from 2003 to 2022

Years	**Export (US Dollar)**	**Change (%)**	**Export** (2003 = 100)	**Coverage Ratio (Export/Import)**
2003	16,965,698,493	---	100	1.01
2004	20,610,853,097	21.49	121.5	0.88
2005	27,149,419,158	31.72	160	0.89
2006	33,242,283,055	22.44	195.9	1.32
2007	40,776,065,461	22.66	240.3	1.63
2008	66,239,316,547	62.45	390.4	1.64
2009	43,993,210,285	-33.58	259.3	1.00
2010	54,598,900,000	24.11	321.8	1.16
2011	82,505,400,000	51.11	486.3	1.60
2012	97,029,493,670	17.60	571.9	1.53
2013	93,065,600,000	-4.09	548.6	1.43

2014	88,949,000,000	-4.42	524.3	1.30
2015	57,560,660,439	-35.29	339.3	0.98
2016	46,829,500,000	-18.64	276	1.06
2017	63,496,860,304	35.59	374.3	1.31
2018	92,771,934,475	46.10	546.8	1.63
2019	88,902,900,000	-4.17	524	1.23
2020	50,188,790,940	-43.55	295.8	0.92
2021*	75,632,222,111	50.70	445.8	1.86
2022 **	99,732,456,123	31.87	587.8	2.01

Iraq is ranked 43rd in the world and is considered one of the largest export economies in the world. In 2022, Iraq exported 99.7 billion dollar and imported 49.6 billion dollars, resulting in a positive trade balance of 31 billion dollar. Exports in Iraq will increase to more than 100 million dollars in 2022 from 16.96 million dollars in 2003. In 2017, Iraq exports five products with a comparative advantage (which means that its share of global exports is greater than expected from the size of its export economy and from the global market for the product). The first exports of Iraq are crudeoil $ 57.5 billion dollar), refined oil (1.47 billion dollar), gold (1.4 billion dollar), oil gas(92.5 million dollar) and tropical fruits (66.7 million dollar), using the 1992 Harmonized System review (HS) Classification.

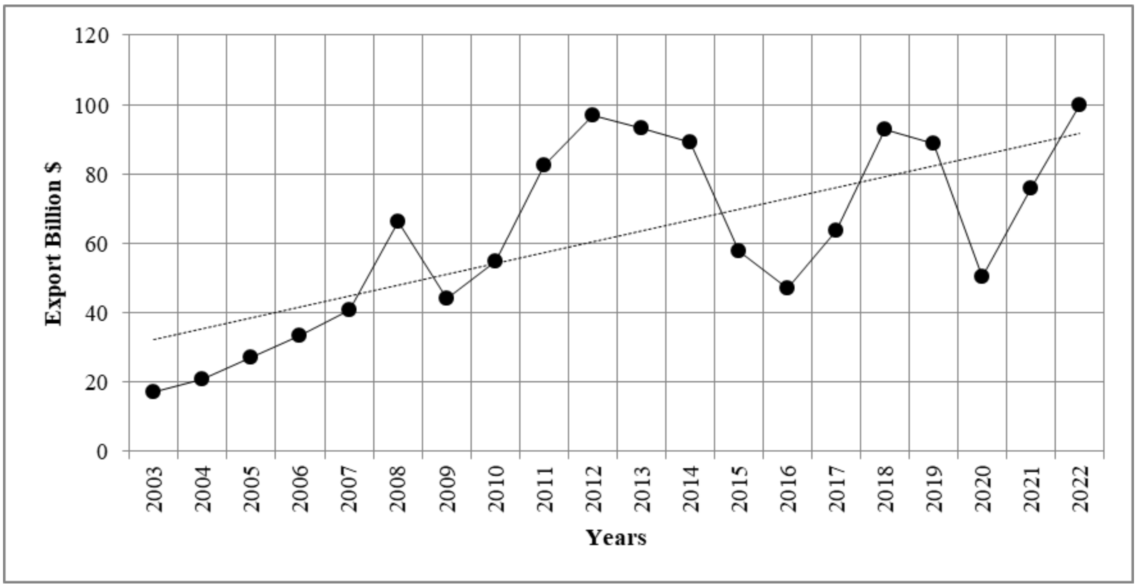

Figure 2.5 Iraq's Exports during 2003-2022

2.2.2 Import of Iraq from 2003 to 2022

In 2021, Iraq imported 40.7 billion dollars, resulting in a positive trade balance of 34.9 billion dollar. In 2017, Iraq's main imports are jewelry ($960 million), packaged medicines ($677 million), poultry meat ($643 million), automobiles ($629 million), and gold ($621 million) (Ponorîcă, *et al*., 2016). In all these years, Türkiye has been one of the main sources of Iraq's imports. As seen in the table and figure 2.6و the global economic crises in 2008 - the ISIS war in 2015 and the Corona pandemic in 2020 have affected the amount of imports like other economic indicators.

Table 2.6 Iraq's Imports from 2003 to 2022

Years	**Import (US Dollar)**	**Change (%)**	**Import** (2003 = 100)
2003	16,844,929,684	--	100
2004	23,428,329,928	39.08	139.1
2005	30,669,639,946	30.91	182.1
2006	25,156,197,953	-17.98	149.3
2007	25,045,843,348	-0.44	148.7
2008	40,441,477,716	61.47	240.1
2009	43,867,213,978	8.47	260.4
2010	47,207,400,000	7.61	280.2
2011	51,552,600,000	9.20	306
2012	63,439,265,513	23.06	376.6
2013	65,103,700,000	2.62	386.5
2014	68,617,800,000	5.40	407.3
2015	58,500,392,047	-14.74	347.3
2016	44,116,000,000	-24.59	261.9
2017	48,423,565,034	9.76	287.5
2018	56,839,934,052	17.38	337.4
2019	72,282,500,000	27.17	429.1
2020	54,265,699,329	-24.93	322.1
2021*	40,736,328,000	-24.93	241.8
2022 **	49,632,211,143	21.84	294.6

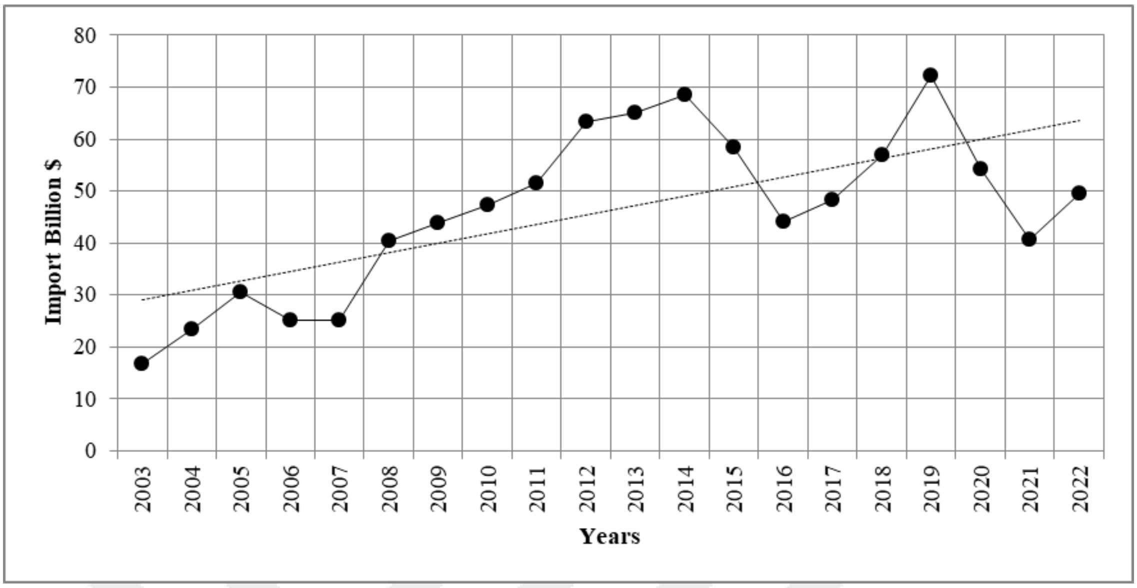

Figure 2.6 Iraq's Imports during 2003-2022.

2.3. Foreign trade between Türkiye and Iraq from 2003 to 2022

As two neighbors, Türkiye and Iraq are good business partners for each other and have many economic relations with each other. These relations are influenced by many different political, regional, social and cultural factors and conditions. Also, the expansion of bilateral foreign trade between these two countries, on the other hand, can affect other factors as well. A large part of the national income of both countries is influenced by foreign trade, and both countries support open economy policies and reducing economic barriers in the field of foreign trade. The value of bilateral commerce in 2021 was $19.5 billion USD. In 2021, Iraq rose to the fifth-largest export destination for Türkiye (USD 11.13 billion). The two presidents of Türkiye and Iraq agreed to raise the volume of bilateral commerce to $20 billion USD during the visit of Iraqi President Berham Salih to Türkiye on January 3, 2021.

These several stages need to be defined in order to better understand the Türkiye-Iraq ties. The Republic of Türkiye and Iraq initially formed as sovereign countries following the First World War; Iraq became a political unity under British mandate, and Türkiye became a sovereign country apart from the Ottoman Empire (Sonmez and Kurban, 2017).

The political collaboration between Iraq and Türkiye is being aided by the economic and strategic advantages, but the primary challenges to long-lasting strong relations are energy and water security. Although few observers think that water alone could be the cause of war between Türkiye and Iraq, its destabilizing effect is clear. Administrative aid is being driven by the rapidly growing economic and strategic cooperation between Türkiye and Iraq (Turunç, 2014).

It is crucial for Türkiye that permanent security and stability are restored in Iraq. In this regard, Türkiye expects Iraq to establish a federal, democratic system based on equitable power and revenue distribution and inclusive policies in accordance with the Iraqi Constitution in order to fully realize its sovereignty and unity within its borders and to eradicate terrorist groups that pose a threat to Türkiye. In terms of petroleum reserves, Iraq is one of the richest countries on earth. Due to its proximity to Iraq and status as an energy corridor, Türkiye may significantly contribute to the export of Iraqi oil and gas to international markets. By offering supply and route variety, the expansion of our collaboration with Iraq in this area would further enhance global energy security.

Table 2.7 Foreign Trade between Türkiye and Iraq from 2003 to 2022 – (2003=100)

Years	Türkiye's Exports/ Iraq's Imports	Türkiye's Imports/ Iraq's Exports	Grand Total	Change (%)	Grand Total (2003 = 100)	Trade Balance /Surplus / Deficit
2003	829,05	112,6	941.65	--	100	716.45
2004	1,821	146	1,967	108.89	208.9	1,675
2005	2,750	67	2,817	43.21	299.2	2,683
2006	2,589.35	121.74	2,711.10	-3.76	287.9	2,467.61
2007	2,844.68	118.70	2,963.38	9.31	314.7	2,725.98
2008	2,916.69	133.05	3,049.74	2.91	323.9	2,783.63
2009	5,123	120	5,243	71.92	556.8	5,003
2010	6,036	153	6,189	18.04	657,.3	5,883
2011	8,310	86	8,396	35,66	891.6	8,224
2012	10,830	149	10,979	30.76	1.165.9	10,681
2013	12,949.89	161	13,110.89	19.42	1.392.3	12,788.89
2014	13,154.13	283.1	13,437.23	2.49	1.427	12,871.03
2015	9,966.66	328.6	10,295.26	-23.38	1.093.3	9,638.06
2016	8,496.08	894.9	9,390.98	-8.78	997.3	7,601.18
2017	10,109.83	1,609	11,718.83	24.79	1.244.5	8,500.83
2018	9,437.01	1,631.20	11,068.21	-5.55	1.175.4	7,805.81
2019	10,223.29	2,678.20	12,901.49	16.56	1.370.1	7,545.09
2020	9,142.05	8,201.70	17,343.75	34.43	1.841.8	940.35
2021	11,125.65	1,664.10	12,789.75	-26.26	1.358.2	9,461.55
2022	9,885.27	1,147.50	11,032.77	-13.74	1.171.6	8,737.77

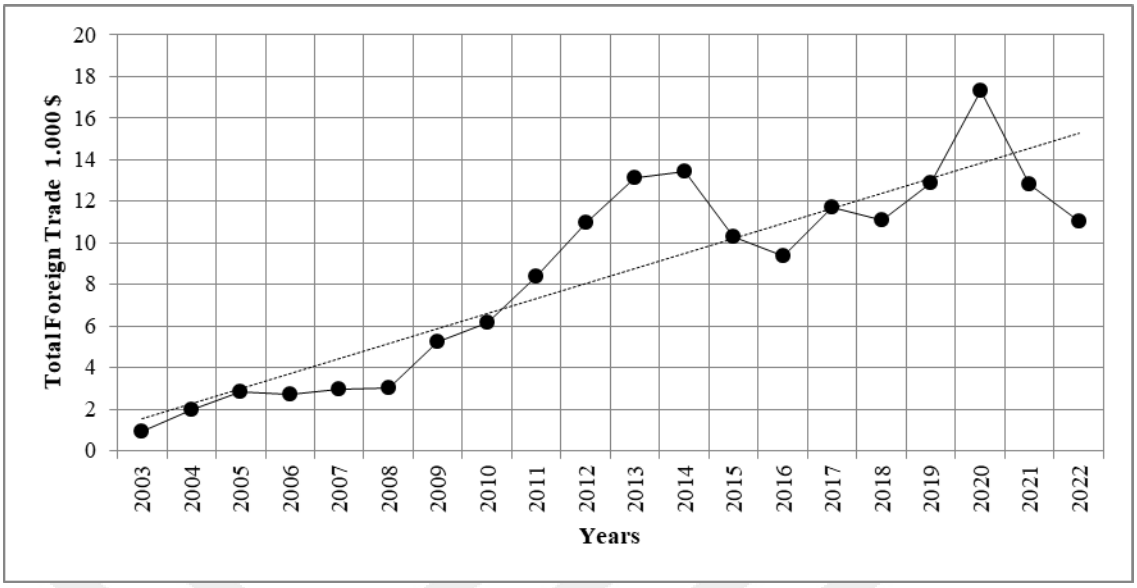

Figure 2.7 Total Foreign Trade between Türkiye and Iraq from 2003 to 2022.

2.3.1 Exports

In 2020, Türkiye exported $9.14B to Iraq. The main products that Türkiye exported to Iraq are Jewellery ($887M), Wheat Flours ($444M), and Other Furniture ($335M). During the last 25 years the exports of Türkiye to Iraq have increased at an annualized rate of 19%, from $829M in 2003 to $9.14B in 2020. In 2020, Türkiye did not export any services to Iraq.

2.3.2 Imports

In 2020, Türkiye imported $8.19B from Iraq. The main products that Iraq exported to Türkiye were Gold ($7.94B), Petroleum Coke ($84.4M), and Refined Copper ($36.3M). During the last 25 years the exports of Iraq to Türkiye have increasedat an annualized rate of 25.4%, from $28.6M in 1995 to $8.19B in 2020. In 2020, Iraq did not export any services to Türkiye.

SECTION 3: EFFECT OF FOREIGN TRADE ON NATIONAL INCOME OF TÜRKIYE AND IRAQ

3.1. Development of Türkiye National Income

Gross Domestic Product (GDP) is the market value of all goods and services produced by a country during a given period (Abdulla and Ali, 2019). Because of its liberal economic policies, Türkiye has been able to increase employment rates, spread knowledge spillovers and access to technologies, acquire new intermediary goods, improve resource allocation, increase income levels, and intensify industrialization while utilizing economies of scale and scope (Temiz and Gökmen 2010). Türkiye's open economy policy has led to the economic growth of this country, and Türkiye's economy has grown a lot in the last two decades. Although the global economic crisis (2008- 2009), ISIS war, internal problems and the recent Corona pandemic crisis have reduced the economic growth of this country.

Especially in the period 2003-2008, Türkiye had outstanding GDP growth. It grew by an average of 19%. Taking all these facts into account, one could argue that the catching-up process of Turkey's economy accelerated significantly in the period 2003-2008 (Macovei, 2009 13-14). The following Table provides the country’s GDP performance during 2003 to 2022.

Table 3.1 Türkiye’s GDP from 2003 to 2022

Years	**GDP (current US$)**	**Change (%)**	**GDP** (2003 = 100)
2003	314,592,428,076	--	100.0
2004	408,876,042,652	29.97	130.0
2005	506,308,311,477	23.83	160.9
2006	557,057,829,051	10.02	177.1
2007	681,337,335,022	22.31	216.6
2008	770,462,156,204	13.08	244.9
2009	649,272,568,774	-15.73	206.4
2010	776,992,599,947	19.67	247.0
2011	838,762,755,164	7.95	266.6
2012	880,556,375,780	4.98	279.9
2013	957,783,020,853	8.77	304.5
2014	938,952,628,604	-1.97	298.5
2015	864,316,670,331	-7.95	274.7
2016	869,692,960,366	0.62	276.5
2017	858,996,263,096	-1.23	273.1
2018	778,471,901,665	-9.37	247.5

2019	761,004,425,605	-2.24	241.9
2020	719,954,821,683	-5.39	228.9
2021	815,271,751,724	13.24	259.2
2022	840,000,000,000	3.03	267.0

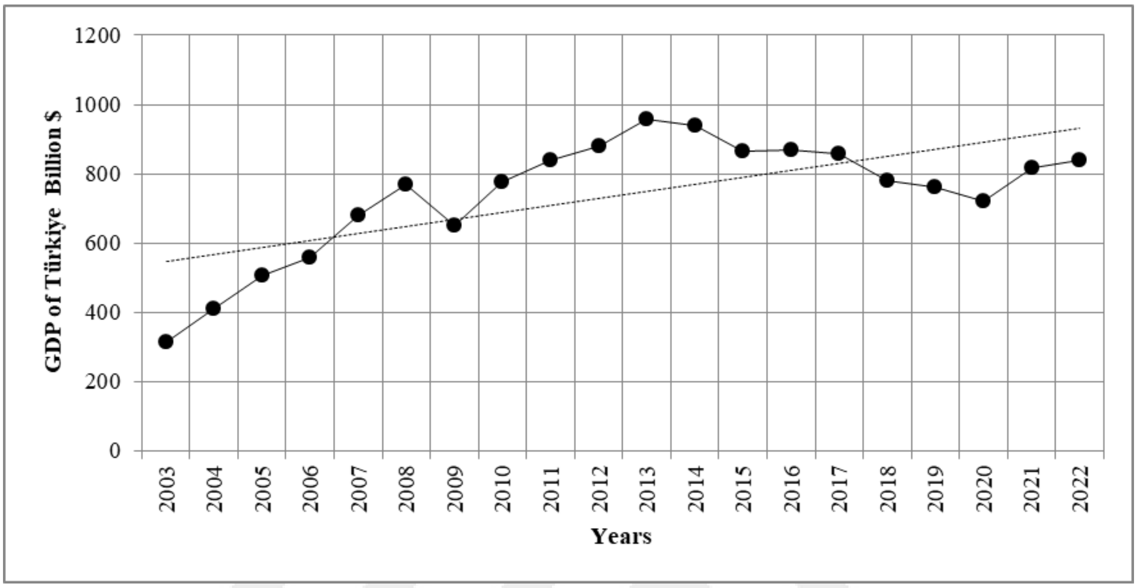

Figure 3.1 Türkiye's GDP from 2003 to 2022

3.2. Development of Iraqi national income

Iraq's GDP has increased over the years, with its current percentage being estimated at 0.32% of the world economy. Iraq's GDP increased from US$21.92 billion in 2003 to US$203 billion in 2022. The highest value of US$234.65 billion was recorded in 2014. Additional information is shown in Figure 2.10 and Table 2.9.

Since 2003, the Iraqi government has also adopted an open economic policy.Iraq is relatively open to foreign trade, which represented more than 69% of the country's GDP in 2019 (World Bank, 2022). In 2021, the gross domestic product of Iraqreached 208 billion dollar, and the per capita GDP reached 4.27 thousand dollar. Unfortunately, due to the fact that there is no specific and reliable reference for announcing various economic indicators and related statistics in Iraq, there may be differences between the data of reliable international organizations. Although the patterns and trends of these data are similar to each other.

Iraq's foreign trade, despite being considered the first contributor and key player in the Iraqi economy, suffers from the clear openness to the world that makes itvulnerable to global fluctuations characterized as sharp and periodic.

Table 3.2 Iraq's GDP from 2003 to 2022

Years	GDP (current US$)	Change (%)	**GDP** (2003 = 100)
2003	21,921,569,479	--	100
2004	36,627,901,762	67.09	167.1
2005	49,954,890,353	36.38	227.9
2006	65,140,147,197	30.40	297.2
2007	88,837,055,195	36.38	405.2
2008	131,614,433,712	48.15	600.4
2009	111,657,581,662	-15.16	509.4
2010	138,516,722,650	24.05	631.9
2011	185,749,664,444	34.10	847.3
2012	218,002,481,738	17.36	994.5
2013	234,637,675,129	7.63	1.070.4
2014	228,415,656,175	-2.65	1.042
2015	166,774,109,674	-26.99	760.8
2016	166,602,488,748	-0.10	760
2017	187,217,660,051	12.37	854
2018	227,367,469,034	21.45	1.037.2
2019	233,636,097,800	2.76	1.065.8
2020	184,369,797,315	-21.09	841
2021*	207,889,333,724	12.76	948.3
2022 **	203,000,000,000	-2.35	926

*-** - The data for 2021 and 2022 are based on the estimates of the IMF and several other international organizations.

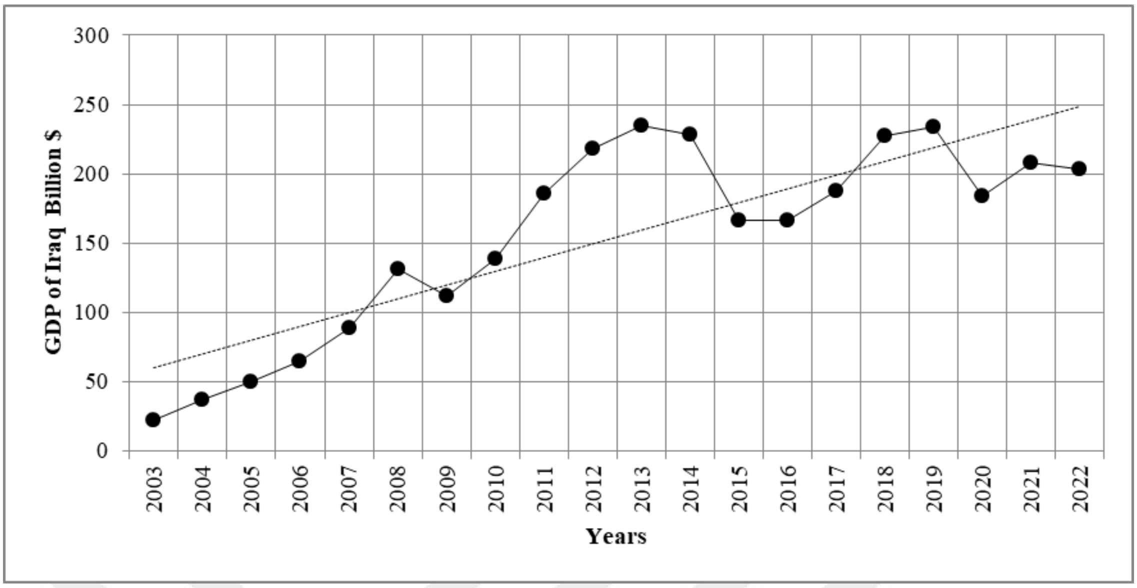

Figure 3.2 Iraq's GDP from 2003 to 2022.

3.3. Relationship between Exports and national income for two countries

In recent years, many empirical studies in the literature of economic growth have sought to examine causal relationships, and from there, in the general approach of macroeconomics, they consider imports to decrease income, which causes a decrease in economic growth and an increase in unemployment, so most of the empirical studies on the relationship between economic growth and foreign trade by focusing on the relationship between economic growth and export (Kahya, 2011). In addition, studies on causality offer a wide range of conclusions about this connection. It can be claimed that there is no universal agreement on the direction and magnitude of causality across all countries. In fact, while some researchers came to the conclusion that export has a single causal relationship with economic growth, which implies that export fosters economic growth, other researchers discovered that export and economic growth have a single causal relationship, which implies that export growth is caused by economic growth. Additionally, some claim that export growth and economic growth are causally related in a two-way relationship, whereas others dispute this argument. By relying on numerous country experiences, it is evident that there are primarily four findings regarding the causality between export and economic growth.

1. The first one asserts that exports are a direct cause of economic expansion.
2. The second claims that export follows economic development causally.
3. The third comes to the conclusion that export and economic growth are causally

related in two ways.

4. The fourth asserts that there is no cause-and-effect connection between the two (Chen 2009).
5. This can suggest the complexity of the theoretical underpinnings of causation in this situation.

In part 6 the following methods which are usually used in similar researches, are used to investigate the relationship between exports and national income in two countries. The data are annual observations of the gross domestic product of Iraq or Turkey and exports from Turkey or Iraq, time series data are used from 2003 to 2022, which are 20 observations to examine how exports from Turkey or Iraq affect the economy of the two countries.

3.4. Relationship between imports and national income for two countries

On the other hand, some studies examine the causal relationship between imports and GDP while taking into account the potential effects of imports on economic expansion. Similar to studies that look into the connection between export and economic growth, these studies produced a range of findings. However, since it appears that the effect of import on economic growth is disregarded, additional researchof this kind is needed. In fact, it can be stated by referring to the discussion above that imported goods would stimulate local facilities and businesses to increase product quality and production efficiency and support the modernization of a nation's conventional industrial structure.

Furthermore, the relationship between imports and economic growth needs to be reevaluated in light of the countries' respective economic development levels. While developing countries typically have a comparative advantage in natural resources and labor force, developed countries typically have an advantage in capital and technology. As a result, these countries' export-import systems are designed so that their primary exports are typically agricultural products and goods with minimal added value, while their primary imports are high-tech goods. In that regard, it might be stated that import is a key strategy for resolving the issues of the economic development bottleneck and fostering economic growth.

In part 6 the following methods which are usually used in similar researches, are used to investigate the relationship between imports and national income in two countries. This methodology mainly relies on the methods of time series econometrics. These tests are used in order to examine the dynamic relationship between GDP,exports and imports in both short-term and long-term with finding out the causality and its direction among them. The result of these tests explained in part 6. Empiricalanalysis

3.5. Foreign Trade Volume and National Income

Foreign trade dependency ratio can also be a suitable index to analyze the relationship between foreign trade and GDP. The foreign trade dependency ratio is a widely used index and hence it is mentioned and used in the Study as an indicator to investigate the importance of foreign trade volume in the economy of these two countries. The general outlook of Türkiye's foreign trade volume with Iraq and gross domestic product is presented in the figure 3.3, which helps to understand the relationship of these variables for Türkiye.

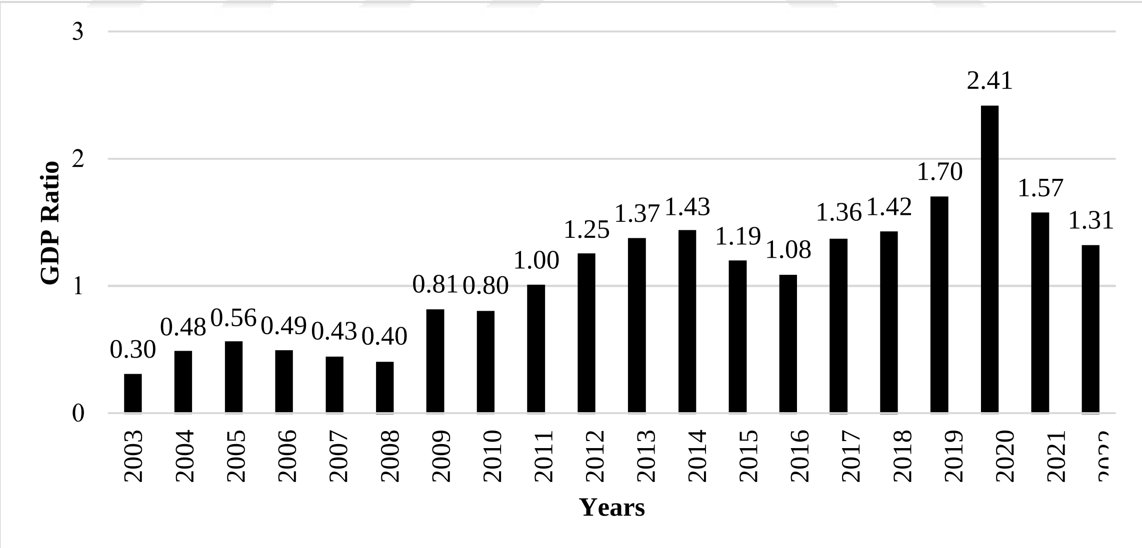

Figure 3.3 Türkiye’s Foreign Trade with Türkiye to GDP ratio for the period (2003-2022).

Figure 3.3 provides some implications for the relationship between foreign trade volume of Iraq with Türkiye and Türkiye’s GDP. This figure shows that this volume of trade constitutes a small part of the national income of Türkiye and this amount has always been less than 3% of the national income. However, the trade trend has been growing since 2003 and this rate has reached its highest level in 2020 at 2.41%.Although the pattern of this growth has not been constant and the volume of trade has fluctuated, which can be clearly seen in the figure. Perhaps the global economic crisis of2008 - internal and regional problems and the Corona pandemic played a role in these fluctuations and have caused a decrease in the volume of foreign trade in the national income.

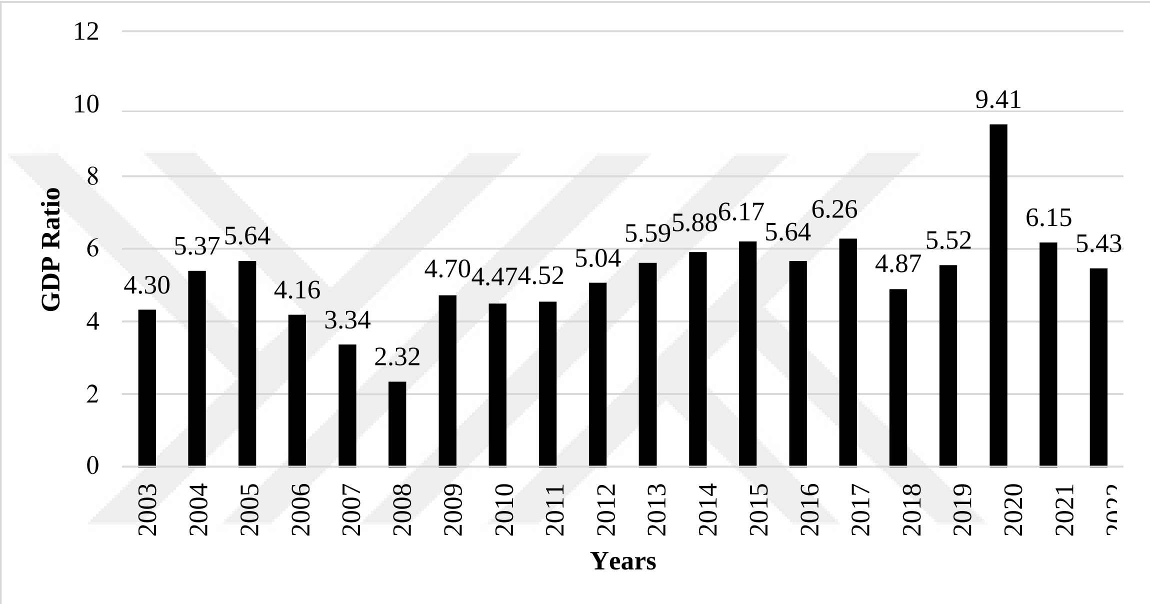

Figure3.4 Iraq’sForeign Trade with Türkiye to GDP ratio for the period (2003-2022).

The general prospects for Iraq's foreign trade volume with Türkiye and gross domestic product are shown in figure3.4. Similarly, this volume of trade constitutes a small part of the national income of Iraq and this amount has always been less than 10% of the national income. However, the trade trend has been growing since 2003 and this rate has reached its highest level in 2020 at 9.41%. This rising ratio can also indicate the contribution of foreign trade volume with Türkiye to economic growth of Iraq. However, details of this are not given. In other words, the dependency ratio can provide insight into the general outlook of foreign trade volume trends in the country, but does not cover the details of how the composition of foreign trade with Türkiye has changed over time. Although the pattern of this growth has not been constant and the volume of trade has fluctuated, which can be clearly seen in the figure.

3.6. Empirical Analysis

The data are annual observations of Türkiye and Iraq's GDP, exports, imports and foreign trade volume between two countries, time series data are used from 2003 until 2022, which are 20 observations to investigate how the exports, imports and foreign trade volume affect the economic growth over the period. The table below shows the descriptive statistics of the variables over the period from 2003 to 2022.

Table 3.3: Descriptive Statistics

	LN_TU_GDP	LN_IQ_GDP	LN_TRADE_VOLUME	LN_TU_EX / LN_IQ_IM	LN_TU_IM / LN_IQ_EX
Mean	13.47939	11.78271	8.798879	8.697493	5.856213
Median	13.56414	12.07455	9.193472	9.084000	5.055921
Maximum	13.77238	12.36580	9.760987	9.484491	9.012097
Minimum	12.65903	9.995226	6.847634	6.720280	4.204693
Std. Dev.	0.288630	0.682546	0.806694	0.773469	1.389685

In this study, three different types of tests are used to investigate the relationship between export-import and the volume of foreign trade with gross national product in both Turkey and Iraq. All of them were tested by the EViews 10 software program. In the first step, the unit root test was applied to figure out the stationarity of the data, with GDP as constant and dependent variable and exports, imports and foreign trade volume as independent variables. Second, the Johansen cointegration test was applied to identify co-integration among variables. Finally, the Granger causality test was used to find out if there is causality between the variables or if the variables affect each other during the period.

$$lnGDP_{it} = \beta_0 + \beta_1 lnE_{it} + \beta_2 lnM_{it} + s_t \quad (1)$$

$$lnGDP_{it} = \beta_0 + \beta_1 lnTradeVolume_{it} + s_t \quad (2)$$

Where ln GDP represents the logarithmic term of national income (economic growth), ln E represents the logarithmic term of exports, ln M represents the logarithmic term of imports and ln Trade represents the logarithmic term of foreign trade volume.

3.6.1 Test of normality of dependent variables

The regression method is based on the assumption that the dependent variable of the research has a normal distribution and its non-normal distribution leads to a violation of the assumptions of this method for parameter estimation. Therefore, it is necessary to test the normality of the distribution of the dependent variable. In this study, this issue is investigated through the Jarque-Bera statistic.

Table 3.4 - The results of the normality test of the dependent variables of the research

Variables	Jarque-Bera Stat	Probability (P-value)
GDPt (Turkiye)	3.8001	0.1495
GDP_i (Iraq)	1.9622	0.3748

To check the normality of the dependent variables of the research, the Jarque-Bera test is used in Eviuse software, the zero assumption of which is normality. The Jarque-Bera statistic has a chi-square distribution with two degrees of freedom. If the probability value (P-value) is higher than the significance level (0.05), the null hypothesis is not rejected and the reason is the normality of the desired variable.

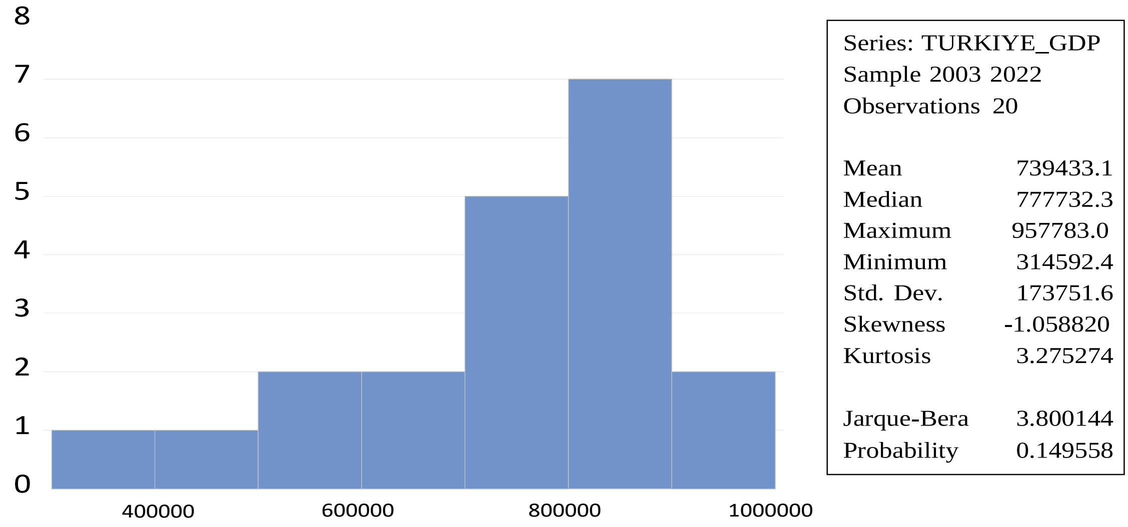

Figure 3.5: The normality test of the Turkish's GDP variable through the Jarque-Bera statistic

As can be seen in Figure 3.5, the probability of significance is higher than 0.05, so the assumption of normality of the Turkish GDP variable is not rejected.

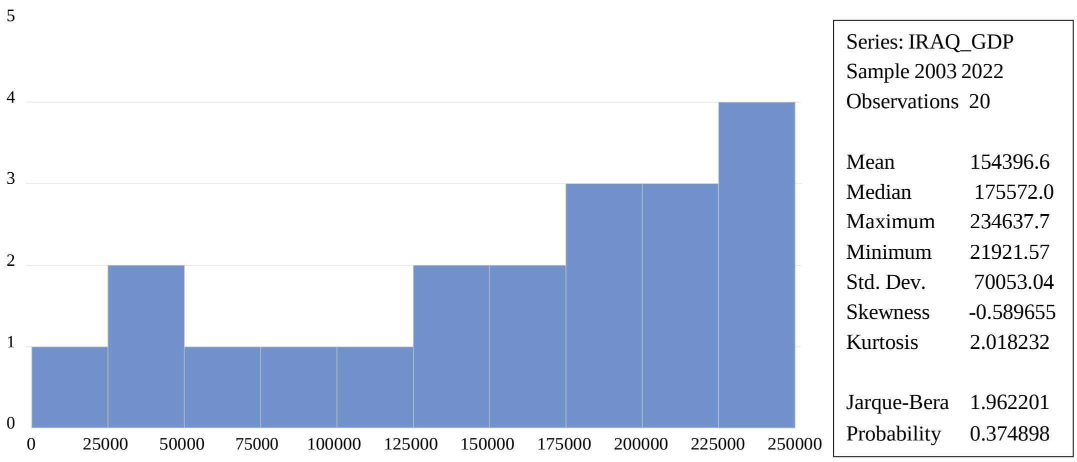

Figure 3.6: The normality test of the Iraq's GDP variable through the Jarak-Bara statistic

As can be seen in Figure 3.5, the probability of significance is higher than 0.05, so the assumption of normality of the Turkish GDP variable is not rejected.

3.6.2 Multiple Linear Regression Analysis

Multiple linear regression analysis seeks to establish a relationship between a dependent variable (here the GDP of Turkiye and Iraq) and two or more independent variables (the predictors) in the form:

$$y = \beta_1 + \beta_2 x_1 + \beta_2 x_2 + \cdots + \beta_n x_n + s$$

The logged values of variables GDP Turkiye and Iraq are dependent variables; the logged values of variables Imports and Export between these two countries and foreign trade volume are independent variables.

Table 3.5 - The results of the regression model for Turkiye's GDP and exports and imports with Iraq

Dependent Variable: LN_TURKIYE_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TU_IM	-0.042756	0.022047	-1.939320	0.0692
LN_TU_EX	0.383179	0.039612	9.673350	0.0000
C	10.39708	0.295570	35.17640	0.0000

R-squared	0.865679	Mean dependent var	13.47939
Adjusted R-squared	0.849877	S.D. dependent var	0.288630
S.E. of regression	0.111832	Akaike info criterion	-1.406157
Sum squared resid	0.212609	Schwarz criterion	-1.256798
Log likelihood	17.06157	Hannan-Quinn criter.	-1.377001
F-statistic	54.78135	Durbin-Watson stat	1.250239

Prob(F-statistic)	0.000000

The results of the regression model for Iraq in the table show that Turkiye's exports to Iraq had a significant impact on Turkiye's GDP because the probability value is less than 0.05. if exports to Iraq increases by 1 percent the Turkiye's GDP also increases by 0.38 percent.

But imports from Iraq are not significant since the probability value is greater than 0.05.

In this regression model the Adjusted R-Squared is 0.84. So, 84 percent of the variation in Turkiye's GDP is due to exports to Iraq. F statistic is significant to prove that the model is fit.

The Durbin-Watson test should be used to check for the presence of bias (Montgomery et al., 2001). The Durbin Watson (DW) statistic ranges from 0 to 4. A value close to 2 indicates no first-order autocorrelation. The acceptable range is near 1.50 to 2.50 (Radojičić et al.,2014). The Durbin Watson is 1.25 that shows there will be a positive autocorrelations and serial correlation among variables. The regression model yielded the following equations:

LN_TU_GDP = 0.383178705402*LN_TU_EX - 0.0427563413916*LN_TU_IM + 10.3970830859

Table 3.6 - The results of the regression test for Iraq's GDP and exports and imports with Türkiye

Dependent Variable: LN_IRAQ_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_IQ_IM	0.838203	0.073448	11.41215	0.0000
LN_IQ_EX	0.007082	0.040880	0.173242	0.8645
C	4.450975	0.548047	8.121526	0.0000

R-squared	0.917419	Mean dependent var	11.78271
Adjusted R-squared	0.907704	S.D. dependent var	0.682546
S.E. of regression	0.207359	Akaike info criterion	-0.171247
Sum squared resid	0.730963	Schwarz criterion	-0.021887
Log likelihood	4.712470	Hannan-Quinn criter.	-0.142090
F-statistic	94.42959	Durbin-Watson stat	1.168000
Prob(F-statistic)	0.000000		

The results of the regression model for Iraq in the table show that Iraq's imports from Turkiye had a significant impact on Iraq's GDP because the probability value is less than 0.05. if imports from Turkiye increases by 1 percent the Iraq's GDP also increases by 0.84 percent.

But Exports to Turkiye are not significant since the probability value is greater than 0.05. In this regression model the Adjusted R-Squared is 0.90. So, 90 percent of the variation in Iraq's GDP is due to imports from Türkiye. F statistic is significant to prove that the model is fit. Durbin Watson is 1.16 that shows there will be a positive autocorrelations and serial correlation among variables. The regression model yielded the following equations:

LN_IQ_GDP01 = 0.838203027308*LN_TU_EX + 0.00708209246326*LN_TU_IM + 4.4509751028

Table 3.7 - The results of the regression test for Turkiye's GDP and Foreign Trade Volume with Iraq

Dependent Variable: LN_TURKIYE_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	0.311263	0.041588	7.484418	0.0000
C	10.74062	0.367387	29.23520	0.0000

R-squared	0.756811	Mean dependent var	13.47939
Adjusted R-squared	0.743301	S.D. dependent var	0.288630
S.E. of regression	0.146236	Akaike info criterion	-0.912549
Sum squared resid	0.384930	Schwarz criterion	-0.812976
Log likelihood	11.12549	Hannan-Quinn criter.	-0.893112
F-statistic	56.01652	Durbin-Watson stat	0.768934
Prob(F-statistic)	0.000001		

The results of the regression model for Türkiye in the table 3.7 show that Türkiye's trade volume with Iraq had a significant impact on Türkiye's GDP because the probability value is less than 0.05. If trade volumes with Iraq increases by 1 percent the Türkiye's GDP also increases by 0.31 percent. In this regression model the Adjusted R-Squared is 0.74. So, 74 percent of the variation in Türkiye's GDP is due to trade with Iraq. F statistic is significant to prove that the model is fit. Durbin Watson is 0.76 that shows there will be a positive autocorrelations and serial correlation among variables. The regression model yielded the following equations:

LN_TU_GDP = 0.311262703333*LN_TRADE_VOLUME + 10.7406239872

Table 3.8 - The results of the regression test for Iraq's GDP and Foreign Trade Volume with Turkiye

Dependent Variable: LN_IQ_GDP01
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	0.798757	0.065776	12.14355	0.0000
C	4.754550	0.581063	8.182500	0.0000

R-squared	0.891216	Mean dependent var	11.78271
Adjusted R-squared	0.885173	S.D. dependent var	0.682546
S.E. of regression	0.231289	Akaike info criterion	0.004340
Sum squared resid	0.962901	Schwarz criterion	0.103913
Log likelihood	1.956601	Hannan-Quinn criter.	0.023778
F-statistic	147.4657	Durbin-Watson stat	1.157428
Prob(F-statistic)	0.000000		

The results of the regression model for Iraq in the table 3.8 show that Iraq's trade volume with Türkiye had a significant impact on Iraq's GDP because the probability value is less than 0.05. If trade volumes with Türkiye increases by 1 percentthe Iraq's GDP also increases by 0.79 percent. In this regression model the Adjusted R- Squared is 0.88. So, 88 percent of the variation in Iraq's GDP is due to trade with Türkiye. The F statistic is significant to prove that the model is fit. Durbin Watson is 1.15 that shows there will be a positive autocorrelations and serial correlation among variables. The regression model yielded the following equations:

LN_IQ_GDP = 0.798756707908*LN_TRADE_VOLUME + 4.75455041512

CONCLUSION

The purpose of this study was to economically analyze the foreign trade between Türkiye and Iraq and its impacts on their national income from 2003 to 2022. Foreign trade between Iraq and Turkey has had a growing trend from 2003 to 2022, but the volume of this trade still includes a small share of the national income of both countries.

The multiple regression analysis was used to test the relationship between research variables. The multiple regression analysis was used to test if exports to Iraq and Imports from Iraq significantly predicted the GDP of Türkiye (table 3.5). The result indicated that exports to Iraq have a significant effect ($\beta = 0.383$, $p = < .000$) on the national income of Türkiye, but imports from Iraq in this multiple regression do not have a significant effect ($\beta = -0.042$, $p = < .069$) on the national income of Türkiye .The fit indices of the regression model such as the Adjusted R-Squared and The F statistics are significant (Adjusted R^2 = 0.849, F = 54.78, p = < .000), and the model is Fit, but the Durbin-Watson stat (1.250239) shows that there is probably a correlation between the data of the variables and this problem should be solved so that the results of the regression model can be used. For Turkey, the results of this test showed that export to Iraq has significant effect on the national income of Turkiye. But since the volume of foreign trade with Iraq is a small part of Türkey's national income, practically these variables have no significant on each other.

The multiple regression analysis was used to test if exports to Turkiye and Imports from Türkiye significantly predicted the GDP of Iraq (table 3.6). The result indicated that imports from Türkiye have a significant effect (β = 0.838, p = < .000) on the national income of Iraq, but exports to Türkiye in this multiple regression do not have a significant effect (β =0.007, p = < .864) on the national income of Iraq .The fit indices of the regression model such as the Adjusted R-Squared and The F statistics are significant (Adjusted R^2 = 0.907, F = 94.42, p = < .000), and the model is Fit, but the Durbin-Watson stat (1.168) shows that there is probably a correlation between the data of the variables and this problem should be solved so that the results of the regression model can be used. For Iraq, this means that local production is not linked to exports to Türkiye, as exports are mainly crude oil, a commodity that is not produced locally. And that imports are primarily consumers, not investments. Therefore, for most of the investigation period, the output did not benefit either exports or imports and vice versa.

The multiple regression analysis was used to test if foreign trade volume (total exports and imports) with Iraq significantly predicted the GDP of Türkiye (table 3.7). The result indicated that foreign trade volume with Iraq have a significant effect (β = 0.311, p = < .000) on the national income of Türkiye. The fit indices of the regression model such as the Adjusted R-Squared and The F statistics are significant (Adjusted R^2 = 0.743, F = 56.01, p = < .000), and the model is Fit, but the Durbin-Watson stat (0.768) shows that there is a correlation between the data of the variables and this problem should be solved so that the results of the regression model can be used.

The multiple regression analysis was used to test if foreign trade volume (total exports and imports) with Türkiye significantly predicted the GDP of Iraq (table 3.8). The result indicated that foreign trade volume with Türkiye have a significant effect (β

= 0.798, p = < .000) on the national income of Iraq. The fit indices of the regression model such as the Adjusted R-Squared and The F statistics are significant (Adjusted R^2 = 0.885, F = 147.46, p = < .000), and the model is Fit, but the Durbin-Watson stat (1.157) shows that there are probably correlations between the data of the variables and this problem should be solved so that the results of the regression model can be used.

The volume of exports between the two countries has significant effect on the national income of the two countries. In particular, a large part of Iraq's exports to Turkey has been crude oil and similar products, gold and jewelry and not locally produced goods and services. Also, a large part of Türkiye's export to Iraq has been consumer goods, which is not a high figure compared to other Turkish exports and has been able to support Türkiye's national income.

Iraq's imports from Türkiye have been able to play a role in Iraq's national income and GDP and the Iraqi economy benefited from them, however most of these imports are consumer goods.

The previous research in this field used the methods of time series econometrics such as Johansen cointegration test and Granger causality test under the broader framework of Vector Autoregressive (VAR) model. Although similar research that examines the exact relationship between foreign trade between Turkey and Iraq with their national income was not found, but the results of this research are similar to the results of Salman's research (2022) and Abdulla & Ali (2019).

Political insecurity, instability and security chaos in Iraq has caused problems in the economic environment, and the main export of Iraq is crude oil and related products. Also, the weakness of laws and central control of the government has caused the import to include more consumer goods, while the import of capital goods and the transfer of technology can play an important role in the Iraqi economy.

If the import of capital goods - machinery and technology transfer is taken into consideration, it can have a greater effect on the economic growth of Iraq. Economic diversification, especially in the field of exports, can help Iraq to contribute to the economic growth of Iraq by diversifying its exports to Türkiye and support domestic production and economic improvement while preserving national resources. Paying attention to domestic production and reducing the import of low-quality consumer goods can be very important in this field.

In this research, multiple regression has been used to examine the relationship between variables, but future research can use non-linear regression by adding other variables such as foreign investment, etc.

A detailed examination of the type and composition of exports and imports between the two countries and the reason for the sharp increase or decrease in the amount of foreign trade between the two countries in some years can be a suitable research topic for other researchers.

Future research can examine the relationship between foreign trade between Iraq and Turkey and the national income of these two countries through other foreign trade models such as Linder theory of overlapping demand or the Gravity model in foreign trade.

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BACKGROUND

APPENDIX

Dependent Variable: LN_TURKIYE_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TU_EX	0.383179	0.039612	9.673350	0.0000
LN_TU_IM	-0.042756	0.022047	-1.939320	0.0692
C	10.39708	0.295570	35.17640	0.0000

R-squared	0.865679	Mean dependent var	13.47939
Adjusted R-squared	0.849877	S.D. dependent var	0.288630
S.E. of regression	0.111832	Akaike info criterion	-1.406157
Sum squared resid	0.212609	Schwarz criterion	-1.256798
Log likelihood	17.06157	Hannan-Quinn criter.	-1.377001
F-statistic	54.78135	Durbin-Watson stat	1.250239

Prob(F-statistic)	0.000000

Sample: 2003 2022
Included observations: 20

```
Autocorrelation   Partial Correlation      AC     PAC    Q-Stat   Prob

   . |**.  |        . |**.  |         1   0.345   0.345  2.7538   0.097
   . | .   |        . *|  .  |        2  -0.050  -0.191  2.8144   0.245
   ***|  .  |       .**|  .  |        3  -0.354  -0.315  6.0545   0.109
   ***|  .  |       .**|  .  |        4  -0.397  -0.219  10.393   0.034
   .**|  .  |       . *|  .  |        5  -0.249  -0.138  12.218   0.032
   . | .   |        . *|  .  |        6  -0.018  -0.067  12.228   0.057
   . | .   |        .**|  .  |        7  -0.029  -0.295  12.257   0.092
   . |* .  |        . |* .  |         8   0.197   0.096  13.686   0.090
   . |**.  |         . | .  |         9   0.241   0.046  16.006   0.067
   . |* .  |        . *|  .  |       10   0.087  -0.145  16.343   0.090
   . *|  .  |       . *|  .  |       11  -0.129  -0.197  17.161   0.103
   . *|  .  |        . | .  |        12  -0.152   0.007  18.429   0.103
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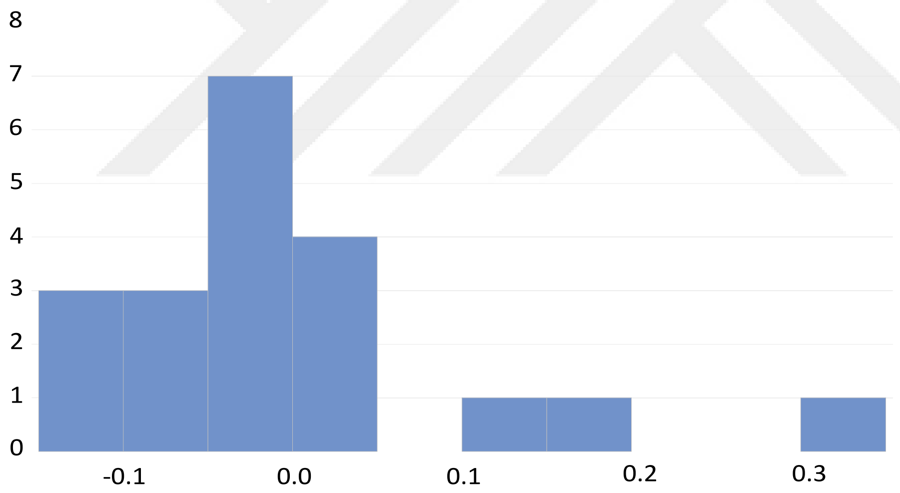


Series: Residuals
Sample 2003 2022
Observations 20

Mean	-1.15e-15
Median	-0.023972
Maximum	0.309697
Minimum	-0.139412
Std. Dev.	0.105782
Skewness	1.427670
Kurtosis	5.066566
Jarque-Bera	10.35306
Probability	0.005648

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.354605	Prob. F(2,15)	0.2879
Obs*R-squared	3.059663	Prob. Chi-Square(2)	0.2166

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 2003 2022
Included observations: 20
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TU_EX	-0.000694	0.039025	-0.017786	0.9860
LN_TU_IM	0.001801	0.021638	0.083242	0.9348
C	-0.003906	0.291302	-0.013408	0.9895
RESID(-1)	0.415218	0.254379	1.632281	0.1234
RESID(-2)	-0.196760	0.256249	-0.767845	0.4545

R-squared	0.152983	Mean dependent var	-1.15E-15
Adjusted R-squared	-0.072888	S.D. dependent var	0.105782
S.E. of regression	0.109570	Akaike info criterion	-1.372192
Sum squared resid	0.180083	Schwarz criterion	-1.123259
Log likelihood	18.72192	Hannan-Quinn criter.	-1.323598
F-statistic	0.677303	Durbin-Watson stat	2.042298
Prob(F-statistic)	0.618156		

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	2.168470	Prob. F(2,17)	0.1449
Obs*R-squared	4.065194	Prob. Chi-Square(2)	0.1310
Scaled explained SS	5.971962	Prob. Chi-Square(2)	0.0505

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.117209	0.054854	2.136755	0.0474
LN_TU_EX	-0.011361	0.007351	-1.545384	0.1407
LN_TU_IM	-0.001327	0.004092	-0.324210	0.7497

R-squared	0.203260	Mean dependent var	0.010630
Adjusted R-squared	0.109526	S.D. dependent var	0.021994
S.E. of regression	0.020755	Akaike info criterion	-4.774620
Sum squared resid	0.007323	Schwarz criterion	-4.625260
Log likelihood	50.74620	Hannan-Quinn criter.	-4.745463
F-statistic	2.168470	Durbin-Watson stat	1.704710
Prob(F-statistic)	0.144941		

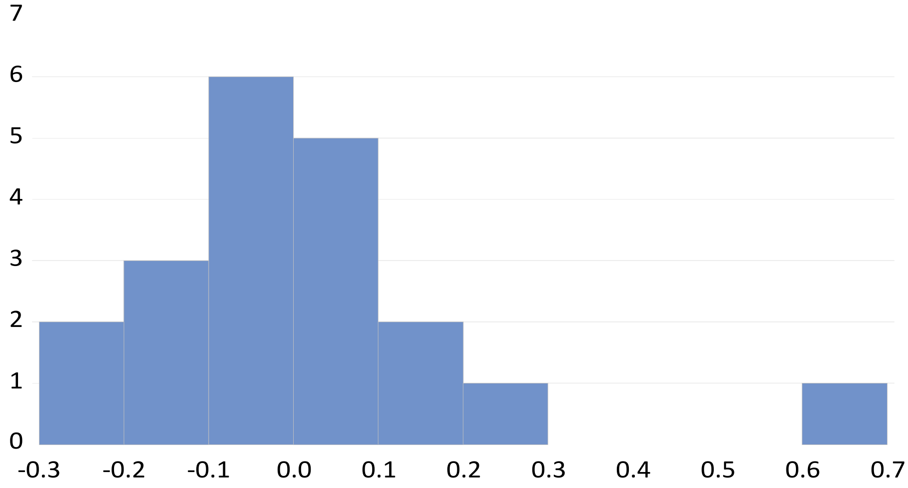
Dependent Variable: LN_IRAQ_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_IQ_IM	0.838203	0.073448	11.41215	0.0000
LN_IQ_EX	0.007082	0.040880	0.173242	0.8645
C	4.450975	0.548047	8.121526	0.0000

R-squared	0.917419	Mean dependent var	11.78271
Adjusted R-squared	0.907704	S.D. dependent var	0.682546
S.E. of regression	0.207359	Akaike info criterion	-0.171247
Sum squared resid	0.730963	Schwarz criterion	-0.021887
Log likelihood	4.712470	Hannan-Quinn criter.	-0.142090
F-statistic	94.42959	Durbin-Watson stat	1.168000
Prob(F-statistic)	0.000000		

Sample: 2003 2022
Included observations: 20

<table>
<tr><th>Autocorrelation</th><th>Partial Correlation</th><th></th><th>AC</th><th>PAC</th><th>Q-Stat</th><th>Prob</th></tr>
<tr><td>. |*** |</td><td>. |*** |</td><td>1</td><td>0.406</td><td>0.406</td><td>3.8122</td><td>0.051</td></tr>
<tr><td>. | . |</td><td>.**| . |</td><td>2</td><td>-0.015</td><td>-0.216</td><td>3.8180</td><td>0.148</td></tr>
<tr><td>.**| . |</td><td>.**| . |</td><td>3</td><td>-0.317</td><td>-0.279</td><td>6.4263</td><td>0.093</td></tr>
<tr><td>.**| . |</td><td>. | . |</td><td>4</td><td>-0.274</td><td>-0.033</td><td>8.4890</td><td>0.075</td></tr>
<tr><td>. *| . |</td><td>. *| . |</td><td>5</td><td>-0.195</td><td>-0.129</td><td>9.5991</td><td>0.087</td></tr>
<tr><td>. *| . |</td><td>. *| . |</td><td>6</td><td>-0.150</td><td>-0.186</td><td>10.305</td><td>0.112</td></tr>
<tr><td>.**| . |</td><td>.**| . |</td><td>7</td><td>-0.213</td><td>-0.272</td><td>11.835</td><td>0.106</td></tr>
<tr><td>. *| . |</td><td>. | . |</td><td>8</td><td>-0.079</td><td>-0.045</td><td>12.064</td><td>0.148</td></tr>
<tr><td>. | . |</td><td>.**| . |</td><td>9</td><td>-0.043</td><td>-0.233</td><td>12.138</td><td>0.206</td></tr>
<tr><td>. |* . |</td><td>. |* . |</td><td>10</td><td>0.212</td><td>0.093</td><td>14.113</td><td>0.168</td></tr>
<tr><td>. |**. |</td><td>. | . |</td><td>11</td><td>0.256</td><td>-0.021</td><td>17.313</td><td>0.099</td></tr>
<tr><td>. |* . |</td><td>. *| . |</td><td>12</td><td>0.105</td><td>-0.203</td><td>17.921</td><td>0.118</td></tr>
</table>



Series: Residuals
Sample 2003 2022
Observations 20

Mean	-2.22e-16
Median	-0.028122
Maximum	0.614666
Minimum	-0.299906
Std. Dev.	0.196142
Skewness	1.399402
Kurtosis	6.070689
Jarque-Bera	14.38537
Probability	0.000752

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.922319	Prob. F(2,15)	0.1806
Obs*R-squared	4.080353	Prob. Chi-Square(2)	0.1300

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 2003 2022
Included observations: 20
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_IQ_IM	-0.002062	0.071421	-0.028872	0.9773
LN_IQ_EX	0.000442	0.039159	0.011291	0.9911
C	0.016219	0.530578	0.030569	0.9760
RESID(-1)	0.494603	0.252404	1.959567	0.0689
RESID(-2)	-0.216603	0.257743	-0.840383	0.4139

R-squared	0.204018	Mean dependent var	-2.22E-16
Adjusted R-squared	-0.008244	S.D. dependent var	0.196142
S.E. of regression	0.196949	Akaike info criterion	-0.199425
Sum squared resid	0.581834	Schwarz criterion	0.049508
Log likelihood	6.994253	Hannan-Quinn criter.	-0.150831
F-statistic	0.961160	Durbin-Watson stat	2.089475
Prob(F-statistic)	0.457003		

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.317154	Prob. F(2,17)	0.2939
Obs*R-squared	2.683373	Prob. Chi-Square(2)	0.2614
Scaled explained SS	4.915366	Prob. Chi-Square(2)	0.0856

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.360589	0.219533	1.642524	0.1188
LN_IQ_IM	-0.033377	0.029422	-1.134444	0.2724
LN_IQ_EX	-0.005762	0.016375	-0.351875	0.7293

R-squared	0.134169	Mean dependent var	0.036548
Adjusted R-squared	0.032306	S.D. dependent var	0.084438
S.E. of regression	0.083063	Akaike info criterion	-2.000960
Sum squared resid	0.117290	Schwarz criterion	-1.851600
Log likelihood	23.00960	Hannan-Quinn criter.	-1.971803
F-statistic	1.317154	Durbin-Watson stat	2.160783
Prob(F-statistic)	0.293889		

Dependent Variable: LN_TU_GDP
Method: Least Squares
Sample: 2003 2022
Included observations: 20

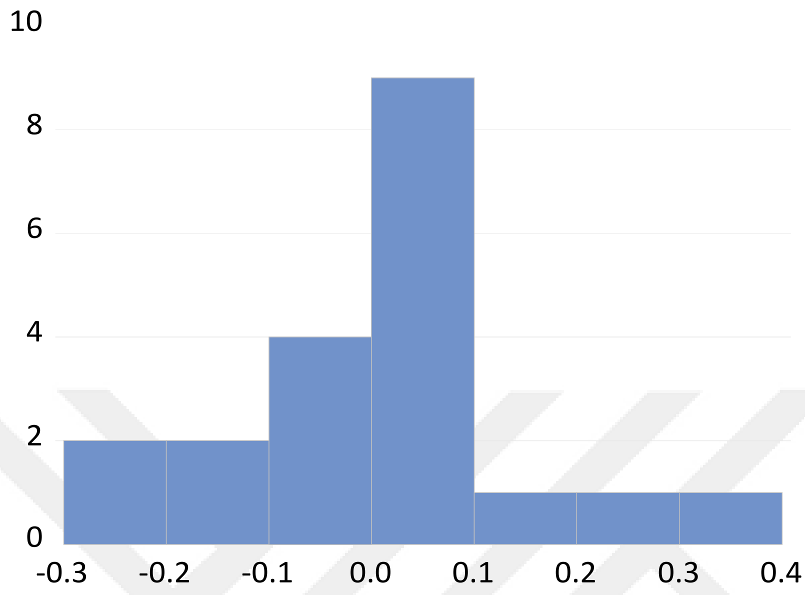
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	0.311263	0.041588	7.484418	0.0000
C	10.74062	0.367387	29.23520	0.0000

R-squared	0.756811	Mean dependent var	13.47939
Adjusted R-squared	0.743301	S.D. dependent var	0.288630
S.E. of regression	0.146236	Akaike info criterion	-0.912549
Sum squared resid	0.384930	Schwarz criterion	-0.812976
Log likelihood	11.12549	Hannan-Quinn criter.	-0.893112
F-statistic	56.01652	Durbin-Watson stat	0.768934
Prob(F-statistic)	0.000001		

Sample: 2003 2022
Included observations: 20

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |**** |	. |**** |	1	0.557	0.557	7.1741	0.007
. |* . |	. *| . |	2	0.207	-0.149	8.2211	0.016
. | . |	. *| . |	3	-0.029	-0.116	8.2424	0.041
.**| . |	. *| . |	4	-0.224	-0.189	9.6162	0.047
. *| . |	. |* . |	5	-0.146	0.141	10.242	0.069
. | . |	. | . |	6	-0.031	0.030	10.273	0.114
. *| . |	.**| . |	7	-0.142	-0.287	10.951	0.141
. *| . |	. |* . |	8	-0.091	0.082	11.255	0.188
. *| . |	. *| . |	9	-0.131	-0.112	11.943	0.217
.**| . |	. *| . |	10	-0.218	-0.136	14.034	0.171
.**| . |	. *| . |	11	-0.231	-0.188	16.650	0.119

***| . |	***| . |	12	-0.389	-0.367	24.966	0.015



Series: Residuals
Sample 2003 2022
Observations 20

Mean	-9.68e-16
Median	0.017962
Maximum	0.316920
Minimum	-0.291912
Std. Dev.	0.142336
Skewness	-0.018866
Kurtosis	3.103295
Jarque-Bera	0.010078
Probability	0.994974

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	3.861777	Prob. F(2,16)	0.0428
Obs*R-squared	6.511296	Prob. Chi-Square(2)	0.0386

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 2003 2022
Included observations: 20
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	-0.000127	0.036569	-0.003485	0.9973
C	0.001753	0.322909	0.005428	0.9957
RESID(-1)	0.641715	0.248373	2.583676	0.0200
RESID(-2)	-0.152708	0.252123	-0.605689	0.5532

R-squared	0.325565	Mean dependent var	-9.68E-16
Adjusted R-squared	0.199108	S.D. dependent var	0.142336
S.E. of regression	0.127380	Akaike info criterion	-1.106429
Sum squared resid	0.259610	Schwarz criterion	-0.907283
Log likelihood	15.06429	Hannan-Quinn criter.	-1.067554
F-statistic	2.574518	Durbin-Watson stat	1.864225
Prob(F-statistic)	0.090153		

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.737288	Prob. F(1,18)	0.2040
Obs*R-squared	1.760412	Prob. Chi-Square(1)	0.1846
Scaled explained SS	1.499579	Prob. Chi-Square(1)	0.2207

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.111919	0.070590	1.585484	0.1303
LN_TRADE_VOLUME	-0.010532	0.007991	-1.318062	0.2040

R-squared	0.088021	Mean dependent var	0.019246
Adjusted R-squared	0.037355	S.D. dependent var	0.028638
S.E. of regression	0.028098	Akaike info criterion	-4.211609
Sum squared resid	0.014211	Schwarz criterion	-4.112036
Log likelihood	44.11609	Hannan-Quinn criter.	-4.192171
F-statistic	1.737288	Durbin-Watson stat	1.883528
Prob(F-statistic)	0.204011		

Dependent Variable: LN_IQ_GDP01
Method: Least Squares
Included observations: 20

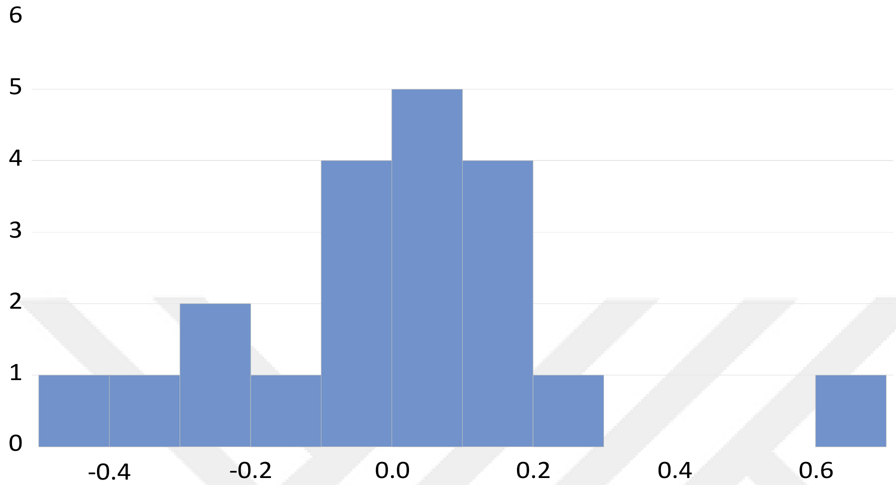
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	0.798757	0.065776	12.14355	0.0000
C	4.754550	0.581063	8.182500	0.0000

R-squared	0.891216	Mean dependent var	11.78271
Adjusted R-squared	0.885173	S.D. dependent var	0.682546
S.E. of regression	0.231289	Akaike info criterion	0.004340
Sum squared resid	0.962901	Schwarz criterion	0.103913
Log likelihood	1.956601	Hannan-Quinn criter.	0.023778
F-statistic	147.4657	Durbin-Watson stat	1.157428
Prob(F-statistic)	0.000000		

Sample: 2003 2022
Included observations: 20

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |*** |	. |*** |	1	0.394	0.394	3.5872	0.058
. | . |	. *| . |	2	0.016	-0.164	3.5935	0.166
. *| . |	. *| . |	3	-0.122	-0.078	3.9759	0.264
. *| . |	. *| . |	4	-0.158	-0.087	4.6603	0.324
. *| . |	. | . |	5	-0.111	-0.029	5.0202	0.413

<table>
<tr><td>. *| . |</td><td>. | . |</td><td>6</td><td>-0.078</td><td>-0.055</td><td>5.2139</td><td>0.517</td></tr>
<tr><td>. *| . |</td><td>. *| . |</td><td>7</td><td>-0.184</td><td>-0.200</td><td>6.3657</td><td>0.498</td></tr>
<tr><td>. *| . |</td><td>. | . |</td><td>8</td><td>-0.165</td><td>-0.059</td><td>7.3663</td><td>0.498</td></tr>
<tr><td>. *| . |</td><td>. *| . |</td><td>9</td><td>-0.178</td><td>-0.167</td><td>8.6279</td><td>0.472</td></tr>
<tr><td>. | . |</td><td>. |* . |</td><td>10</td><td>0.036</td><td>0.129</td><td>8.6865</td><td>0.562</td></tr>
<tr><td>. |* . |</td><td>. | . |</td><td>11</td><td>0.100</td><td>-0.063</td><td>9.1730</td><td>0.606</td></tr>
<tr><td>. *| . |</td><td>***| . |</td><td>12</td><td>-0.194</td><td>-0.387</td><td>11.236</td><td>0.509</td></tr>
</table>



Series: Residuals
Sample 2003 2022
Observations 20

Mean	-3.98e-16
Median	0.021529
Maximum	0.624807
Minimum	-0.426506
Std. Dev.	0.225120
Skewness	0.605131
Kurtosis	4.503676
Jarque-Bera	3.104812
Probability	0.211738

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.739666	Prob. F(2,16)	0.2072
Obs*R-squared	3.572332	Prob. Chi-Square(2)	0.1676

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 2003 2022
Included observations: 20
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_TRADE_VOLUME	-0.004522	0.064389	-0.070234	0.9449
C	0.040770	0.568673	0.071692	0.9437
RESID(-1)	0.460558	0.247096	1.863879	0.0808
RESID(-2)	-0.163917	0.250734	-0.653750	0.5226

R-squared	0.178617	Mean dependent var	-3.98E-16
Adjusted R-squared	0.024607	S.D. dependent var	0.225120
S.E. of regression	0.222333	Akaike info criterion	0.007575
Sum squared resid	0.790911	Schwarz criterion	0.206721
Log likelihood	3.924254	Hannan-Quinn criter.	0.046450
F-statistic	1.159778	Durbin-Watson stat	1.957469
Prob(F-statistic)	0.355721		

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.770893	Prob. F(1,18)	0.1999
Obs*R-squared	1.791414	Prob. Chi-Square(1)	0.1808
Scaled explained SS	2.541997	Prob. Chi-Square(1)	0.1109

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 2003 2022
Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.349969	0.227711	1.536898	0.1417
LN_TRADE_VOLUME	-0.034303	0.025777	-1.330749	0.1999

R-squared	0.089571	Mean dependent var	0.048145
Adjusted R-squared	0.038991	S.D. dependent var	0.092460
S.E. of regression	0.090639	Akaike info criterion	-1.869224
Sum squared resid	0.147878	Schwarz criterion	-1.769650
Log likelihood	20.69224	Hannan-Quinn criter.	-1.849786
F-statistic	1.770893	Durbin-Watson stat	2.249683
Prob(F-statistic)	0.199884		