Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Master's Thesis

Foreign Trade – Study Case of Syria

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The main objective of this research is to analyze the role of foreign trade on the economy of Syria, as well as to analyze it before and during the ongoing war crisis on the country that started in 2011.

Methodology

The methodology is based on Descriptive analytical method to present and reflect facts related to foreign trade in Syria, as well a causal-comparative research; The research will use secondary date published in academic and scientific studies and research, and reports issued by government institutions such as National Statistical Office.

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Declaration

I declare that I have worked on my master's thesis titled "Foreign Trade- Study Case of Syria" by myself and I have used only the sources mentioned at the end of the thesis. As the master's thesis author, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2022

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Foreign Trade – Study Case of Syria

Abstract

Foreign commerce is one of the most essential aspects of a country's economy, and this thesis examines Syrian foreign trade from 2011 to 2019. The thesis' major goal is to compile a study of Syrian commerce in relation to other factors that influence it. It is divided into two parts: theoretical and practical.

The theoretical section is dedicated to describing an overview of international commerce in order to gain a thorough knowledge of its relevance, needs, and aims.

The practical part covers Syria, including an overview of the country's trade-related data and a study of the export volume relationship with chosen factors from 2011 to 2019. The research revealed an inherent structural defect in the foreign trade sector, especially in the commodity structure of exports and imports, in this study of the development of the Syrian trade balance from 2011 to 2019. The trade balance suffers from a consistent deficit in general, which has worsened significantly due to the ongoing conflict, and a low rate of export coverage of imports (consumer, intermediary, capitalist).

Gretl software is used to conduct the analysis of the volume of exports, Saudi Arabia's GDP, inflation, and exchange rate. Which is based on a one-equation econometric model. The model is also economically, statistically, and econometrically verified.

Keywords: Syria, Foreign Trade, Imports, Export, balance of trade, econometric analysis, Gretl, trade partners, degree of openness, coverage ratio.

Zahraničí obchod - Studijní případ Sýrie

Abstrakt

Zahraniční obchod je jedním z nejdůležitějších aspektů ekonomiky země a tato práce se zabývá syrským zahraničním obchodem v letech 2011 až 2019. Hlavním cílem práce je sestavit studii syrského obchodu ve vztahu k dalším faktorům, které jej ovlivňují. Je rozdělena na dvě části: teoretickou a praktickou.

Teoretická část je věnována popisu přehledu mezinárodního obchodu s cílem získat důkladné znalosti o jeho významu, potřebě a cílech.

Praktická část pokrývá Sýrii, včetně přehledu obchodních dat země a studie vztahu objemu exportu s vybranými faktory v letech 2011 až 2019. Výzkum odhalil inherentní strukturální defekt v sektoru zahraničního obchodu, zejména v komoditní struktuře vývozu a dovozu, v této studii vývoje syrské obchodní bilance v letech 2011 až 2019. Obchodní bilance obecně trpí konzistentním deficitem, který se výrazně zhoršil v důsledku probíhajícího konfliktu, a nízkou mírou exportního krytí dovoz (spotřebitel, zprostředkovatel, kapitalista).

Software Gretl se používá k provádění analýzy mezi objemem exportu, HDP Saúdské Arábie, inflací a směnným kurzem. Který je založen na jednorovnicovém ekonometrickém modelu. Model je také ekonomicky, statisticky a ekonometricky ověřen.

Klíčová slova: Sýrie, zahraniční obchod, import, export, obchodní bilance, ekonometrická analýza, Gretl, obchodní partneři, míra otevřenosti, poměr pokrytí.

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1. Introduction:

The global economy has been undergoing ongoing fundamental changes since World War II as a result of scientific and technological advancements, which has been accompanied by changes in the status and weight of countries in the international arena with all political and economic systems, and the new global economic order of liberalizing trade restrictions has become a major challenge and a potential threat to the countries of the world or ratified by them. At the same time, this new system provides an opportunity for developing countries to transition from the constraints of a small market to the expansiveness of the global market, and whether this is agreed upon or not, it is ultimately necessary to confront this system, as it is one of the 21st century's imperatives.

It is now known that companies, not countries, compete, so companies with strong competitive capabilities can help their members improve their standard of living, as a country's standard of living is closely linked to the success of its businesses and their ability to break into international markets through export or foreign direct investment.

Considering that the Syrian economy is one of the developing economies that has experienced slow economic growth due to a lack of investment and a limited internal market, and in order for Syria to fully and effectively integrate into this new world economic system, it must increase its production and investment capacity, as well as improve and expand the infrastructure that allows it to efficiently deliver its goods to global markets. Diversification of goods and markets, as well as increased investment and development of human resources and technical energies, are required to raise production and efficiency to their levels in the fields of quality, cost, and delivery requirements in international markets, which represents an increase in the Syrian economy's competitiveness in the scientific and technological sense. Whereas the Syrian economy requires a comprehensive economic reform and restructuring process to reap the benefits of current and future economic changes.

The importance of studying foreign trade indicators to draw an accurate picture of the reality of that economic sector goes beyond determining its impact on the economic growth of any country, given the role of trade that supports or hinders economic growth. A country that suffers from a trade balance deficit (it imports more than it exports) shows its domestic product The total is in a state of failure to meet the internal demand (total spending on consumption and investment in the country), which undermines economic growth opportunities, in addition to economic exposure that leads to a rise in external economic shocks that affect the supplying countries.

Many literatures and theoretical research in the field of foreign trade indicate the existence of a relationship between the growth and development of foreign trade and economic growth represented by the growth of GDP. A negative relationship, as the interest in studying the relationship between foreign trade and growth increased after accelerating the removal of restrictions on trade exchange with the outside world.

Foreign trade is one of the important elements in supporting the national economy and contributing to the gross domestic product and reconstruction, and the performance of the Syrian foreign trade in the hand of the national economy in the foreign currency necessary for the development currency and during the past years has varied significantly and in conjunction with the discrepancy in the performance of the national economy and the decline in the growth rates of the gross domestic product, especially after 2011. From the decline in its size and value due to the negative effects of the war and the international and Arab economic sanctions that harmed the country.

Analyzing quantitative indicators of foreign trade is one of the most important measures used to measure the strength of the country's economy, and one of the most important indicators that will be used in this research is the indicator of the ratio of exports coverage of resources and the indicator of the degree of trade openness, in addition to showing the structural composition of foreign trade according to the use of materials, as the study of this The indicators help explain the current situation of Syrian foreign trade.

2. Aims and Methodology:

2.1. Aims:

The study's main purpose is to investigate the significance of foreign commerce in Syria, as well as how it affects the country's economy and how it is influenced by other chosen factors in the period 2011-to 2019. The sub-objectives are to get a better understanding of international commerce, why it is vital for nations, and how countries should change their trade processes to accommodate international trade.

The research also intends to accomplish the following goals:

- 1. Emphasizing Syria's relevance to global trade
- 2. Emphasizing the country's dramatic change in trade realities from the start of the conflict till recent years.
- 3. Studying the reality of Syrian foreign trade.
- 4. Studying chosen elements that are believed to have an influence on Syrian foreign trade
- 5. Analysing the quantitative indicators of international trade to determine the economic value of Syrian foreign commerce.

2.2. Methodology:

The research relied on the descriptive-analytical method to present and reflect facts related to foreign trade in Syria, causal-comparative research; the research will use secondary data published in academic and scientific studies and research and reports issued by governmental institutions such as National Statistical Office.

The second section of the study dealt with the study of the causal relationship between foreign trade and other indicators (Saudi Arabia GDP, inflation, exchange rate) by relying on Gretl's one-equation model test and using economic, statistical, and econometric analysis for the mentioned indicators' time series over the period of 2011-2019.

3. Literature Review:

3.1. International trade:

People have indeed been trading goods and services since the dawn of history, and it really is probably as old as human civilization. On the other hand, foreign trade dates back to the early of history, and the industrial revolution in Britain in the mid-eighteenth century marked the real beginning of it, with the establishment of the modern nation-state (Lucas, 2009). The colonization of countries began to open new markets for raw materials and the disposal of production surpluses as the necessity of obtaining raw materials needed for the industry from other countries, manufacturing by mechanization, production, and the necessity of discharging finished products in foreign markets increased (GOLDSMITH, 2002). After that, in the nineteenth century, the volume of foreign trade increased and its scope expanded due to significant advancements in transportation and communications, which made the world appear to be a single market, in which products are exchanged for one another and price disparity arise now reduced.

Nowadays, the expansion of the volume and scope of foreign trade is due to the great progress and development of various aspects of life from means of transportation, technological sciences, arts, inventions, the development of financial and monetary policies, the emergence of unions and economic blocs, and the emergence of many global concepts that support the working mechanism of the global trade system such as the World Bank for Trade and financing and more, which made each country expand its use of the latest scientific developments in various production processes. (Ibtissam and Iman, 2017) As a result of the increasing surpluses in domestic production over consumption, global commerce became one of the most important factors in boosting the level of economic progress for the majority of the world's countries. (Krugman and Obstfeld, 2003)

But, first and foremost, what is international/foreign trade?

Foreign trade is regarded as the primary determinant of economic development and growth, and it has a favourable influence on economic resource regulation and exploitation. (Lucas, 2009) International commerce may well be defined as both tangible and intangible exports and imports. There are various definitions of international trade, including the following:

Foreign trade is the process of moving products and services between nations, which is governed by a system of policies, rules, and regulations. It is a collection of methods through which the government interferes in its international commerce to attain some of its objectives. (Heakal, 2021) Because it deals with partial units like export and import, foreign commerce is considered a microeconomic science. (Krugman and Obstfeld, 2003)

One of the fields of economics dealing with the study of international economic transactions, as manifested in the movement of commodities, services, and capital between nations, as well as the trade policies used by governments throughout the world to affect these movements. (Krugman and Obstfeld, 2003)

Foreign commerce, on the other hand, is defined as "the process of trading products, services, and other varied production aspects across many nations in order to produce mutual benefits for the exchange partners." (Abdel Azim, 1996)

It can be further defined as follows: "It is a quantity of the commodity-monetary relations system that consists of the total foreign trade of all countries of the world, and foreign trade can be practiced by natural or concerned persons, as well as governments and various global organizations, and thus the international trade-economic relations are only a fraction of the total foreign trade of all countries of the world." They are the relationships that develop between the various elements that make up a country's economic activity, as well as the relationships that exist between these countries, as well as the international movement of factors of production (labour-power and capital), international monetary and credit relations, and productive and practical-technological cooperation. (Krugman and Obstfeld, 2003)

Furthermore, "international commercial transactions in their third forms, represented by the movement of goods, people, and capital, arise between individuals residing in different political units, or between governments or economic organizations inhabiting different political units," according to a general definition. (Ashkar, 2017)

In trade management, the term foreign trade also refers to internationally exchanged trade operations, i.e., the international trade exchange of goods and services in general, but when such exchange occurs between a specific country and another country or countries, it is referred to as foreign or foreign trade." (Saqr, Ismail, and Khoury, 2019)

Comprehensive definition: Foreign trade consists of various external trade exchange operations, whether in the form of goods, individuals, or capital, between individuals residing in different political units, in order to meet the greatest needs possible, and it consists of two basic elements: exports and imports, in their tangible and intangible forms.

There isn't a country in the planet that isn't involved in international trade. There is no country in the world that is self-sufficient in every source of goods, commodities, inputs, services, and

technologies. As a result, they choose to trade with one another in order to meet their wants. Furthermore, we can explain foreign trade in a variety of ways, and we are all involved in it on a daily basis.

3.2. Theories of international trade:

To understand the modern theory, one must first understand how countries traded with each other in the old days. Many economists later proposed theories regarding how global commerce works. The basic goal of trade theory is to understand the current trade pattern, its impact on the national economy, and how to improve national welfare. There have been main theories dubbed classical, which is a country-based theory, throughout history. (Rahban 2013) Over time, most theories used to explain trade have shifted from firm-based to country-based. By the mid-twentieth century, it had occurred. Modern theory or firm-based theory are terms used to describe these types of theories. Many international theories are based on country-based and firm-based conceptions. (Verter, 2015)

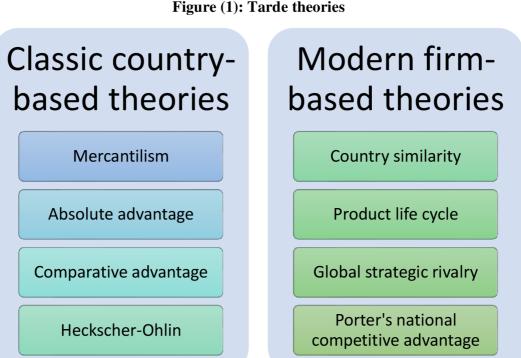


Figure (1): Tarde theories

Source: Own elaboration, (Cho and Shenkoya, 2020)

I. Classical country-based theories

A. Mercantilism

In the sixteenth century, mercantile theory was one of the first efforts to formulate an economic theory. The value of a country's gold and silver holdings, according to this notion, determine its riches. Mercantilists believed that a nation's gold and silver reserves should be raised through stimulating exports while restricting imports. In its most basic form, mercantilists thought that a country's gold and silver holdings should be increased by encouraging exports and limiting imports. To put it another way, if individuals in other nations buy more from you (exports) than they sell to you (imports), they must pay you the gold and silver difference. (Verter, 2015) Each country's goal was to have a trade surplus, or a scenario in which exports outnumber imports, and avoid a trade deficit, in which imports outnumber exports. A closer examination of world history from the 1500s to the late 1800s reveals why mercantile capitalism thrived. The 1500s saw the emergence of new nation-states, whose rulers sought to strengthen their countries by expanding their armies and national institutions. These monarchs were able to collect more money and wealth for their kingdoms via growing exports and commerce. Import restrictions were one method that several of these new governments boosted exports. Protectionism is the name for this technique, and it is still in use today. (Lucas, 2009)

Nations exploited their colonies throughout the world to expand their riches and control more trade. The British colonial empire, which aimed to increase its wealth by importing raw commodities from places like the Americas and India, was one of the most successful examples. France, the Netherlands, Portugal, and Spain were all successful in constructing massive colonial empires that provided major revenue to their governments. Mercantilism is one of the oldest trading philosophies, yet it is still relevant today. (Amroun, 2017) Countries like Japan, China, Singapore, Taiwan, and even Germany continues to encourage exports and discourage imports through a sort of neo-mercantilism that combines protectionist regulations and limitations with domestic industry subsidies. Almost every country has employed some type of protectionist policy to safeguard critical industries in its economy at some point. While export-oriented businesses tend to advocate protectionist measures that benefit their industry or businesses, protectionism hurts other businesses and consumers. Taxpayer's foot the bill for government export subsidies in the

form of increased taxes. Consumers pay extra for foreign-made products and services because of import restrictions. Free-trade proponents emphasize how free trade helps all members of the global society, whereas mercantilism's protectionist policies benefit just a few industries at the expense of customers and other businesses both inside and outside the industry. (Rahban 2013)

B. Absolute advantage

In The Wealth of Nations, published in 1776, Adam Smith questioned the dominant commercial paradigm of the day. An Inquiry into the Nature and Causes of National Wealth, by Adam Smith (London: W. Strahan and T. Cadell, 1776). Scholars and economists modified the most recent editions. Absolute advantage was a novel trade theory proposed by Smith, which focused on a country's capacity to manufacture an item more effectively than another. (Heakal, 2021) Government policy or interference, Smith reasoned, should not limit or restrict commerce between countries. According to him, commerce should flow spontaneously as a result of market forces. If Country A could manufacture an item cheaper or faster (or both) than Country B in a hypothetical two-country scenario, then Country A would have the edge and could focus on creating that commodity. Similarly, if Country B excelled in producing a different good, it might concentrate on specialization. Countries would gain efficiency via specialization since their workforce would grow more proficient by performing the same activities. Manufacturing would become more efficient as a result of the increased motivation to develop quicker and better production processes in order to boost specialization. People in both nations would gain from higher efficiency, according to Smith's idea, and trade should be encouraged. His idea argued that a country's wealth should be measured by its people's living conditions rather than the amount of gold and silver it had. (Hayes, 2020)

C. Comparative advantage

The absolute advantage idea was challenged by the fact that certain nations may be better at producing both items and hence have an advantage in multiple areas. Another country, on the other hand, may not have any significant absolute advantages. In 1817, David Ricardo, an English economist, proposed the idea of comparative advantage to address this problem. (Heakal, 2021) Even if Country A had an absolute advantage in the manufacture of both items, Ricardo reasoned, specialization and trade between the two nations might still occur. When a country cannot manufacture a product more efficiently than another country, but it can produce that product better

and more effectively than other items, it is said to have comparative advantage. There is a small distinction between these two hypotheses. Absolute advantage is concerned with absolute productivity, whereas comparative advantage is concerned with relative productivity differences. (Hayes, 2020).

D. Heckscher-Ohlin

Smith and Ricardo's ideas didn't assist governments figure out which items would provide them an edge. Both ideas anticipated that free and open markets would encourage governments and producers to figure out which items they could manufacture more effectively. In the 19th century, two Swedish economists, Eli Heckscher and Bertil Ohlin, focused their efforts as to how a nation may gain comparative advantage by producing things that used locally plentiful components. Their strategy is centred on a nation's production components: land, labour, and capital, which provide the funds for buildings and machinery investments. (Hayes, 2020) They discovered that the price of any factor or resource is governed by supply and demand. Ones in high supply compared to demand would be less costly; factors in high demand compared to supply would be more expensive. Their idea, also known as the factor proportions theory, predicted that nations would create and export commodities that needed abundant resources or factors, resulting in lower production costs. Countries, on the other hand, would import commodities that needed resources that were scarce but in great demand. (Verter, 2015)

II. Modern firm-based theories

A. Country similarity

In 1961, Swedish economist Stefan Linder created the nation similarity hypothesis to describe the notion of commerce in the train sector. According to Linder's thesis, consumers in nations at the same or comparable stages of development have similar tastes. Linder proposed that corporations create first for domestic demand in this firm-based paradigm. When organizations consider exporting, they frequently discover that markets with client preferences that are comparable to their local market have the most potential for success. (Borad, 2021) According to Linder's nation similarity hypothesis, most manufactured goods trade will occur between countries with comparable per capita incomes, and rail trade will be prevalent. This notion is frequently used to

products commerce, where brand names and product reputations play a significant role in customers' decision-making and purchasing processes. (Borad, 2021)

B. Product life cycle

The product life cycle hypothesis was established in the 1960s by Raymond Vernon, a Harvard Business School professor. A product life cycle includes three different stages, according to the idea, which originated in the area of marketing: (1) new product, (2) mature product, and (3) standardized product. The notion believed that the new product's manufacture would take place entirely in the nation where it was invented. (Saqr, Ismail, and Khoury, 2019) This was a good notion to explain the United States' industrial prowess in the 1960s. Following WWII, US manufacturing became the world's main producer in numerous areas. It's also been used to characterize the progression of the personal computer (PC) through its life cycle. In the 1970s, the PC was a novel product that evolved into a mature product in the 1980s and 1990s. The PC is now a standardized product, with the majority of the manufacturing and manufacture taking place in low-cost Asian and Mexican nations. The product life cycle hypothesis has struggled to describe modern trade trends including global innovation and production. Global corporations, for example, do research and development in developing countries, where highly trained people and facilities are typically less expensive. Despite the fact that research and development is typically associated with the first or new product stage and thus completed in the home country, developing or emerging-market countries such as India and China offer both highly skilled labor and new research facilities at a significant cost advantage to global firms. (Lucas, 2009)

C. Global strategic rivalry:

The 1980s saw the emergence of global strategic competition theory, which was based on the work of economists Paul Krugman and Kelvin Lancaster. MNCs and their efforts to achieve a competitive edge over other multinational enterprises in their industry were the subject of their thesis. In order to succeed, businesses will face worldwide competition in their sectors, and they will need to establish competitive advantages. (Ibtissam and Iman, 2017) The barriers to entry for that industry refer to the essential methods in which enterprises might gain a durable competitive advantage. Barriers to entry are the challenges that a new company may experience when attempting to join a new industry or market. The following are some of the entrance obstacles that businesses may strive to reduce as descried by Dreyer (Dreyer, 2010):

- research and development
- intellectual property rights ownership
- economies of scale
- distinctive business processes or procedures
- considerable industry knowledge
- resource control or preferential access to raw materials

D. Porter's national competitive advantage

As part of the continual development of international trade ideas, Harvard Business School's Michael Porter provided a new framework to explain national competitive advantage in 1990. According to Porter's thesis, an industry's capacity to innovate and upgrade determines an economic competitiveness in that industry. His idea aimed to explain why certain countries are more competitive in some industries than others. Porter established four factors that he tied together to describe his idea. Local market resources and capabilities, local market demand circumstances, local suppliers and adjacent industries, and local business characteristics are the four factors. (Borad, 2021)

3.3. Characteristics of foreign trade:

As discussed by Cernat (Cernat, 2019), foreign trade is characterized as an exchange of goods and services between countries, and these exchanges may be between countries that seek to achieve the economic goal, or perhaps to control and acquire foreign markets, and this view has developed in recent years, especially in light of external openness and the entry of international agreements and the emergence of e-commerce ones the is characterized by change, speed in providing services and being easy to control, so that some organizations - not countries - seek to control their products on foreign markets that many countries may be unable to.

In his studies, Canton explained that foreign trade is based on specialization in production, so that each country expends its energies and harnesses its resources in the production of the commodity that it can produce and supply to other countries with distinction rather than other countries. The emergence of international standards and principles for goods and services, which establishes production controls, or the so-called ISO. (Canton, 2021)

Foreign trade requires the transition to international marketing, and this requires large foreign markets in order to be able to achieve its goals, and from here the processes of international trade competition begin to control international and global markets. Countries may vary in this area in controlling foreign markets in terms of propaganda and media means and proximity to Target markets and production bias in those countries for other reasons (Canton, 2021); Foreign trade operates within the framework of international trade law with the aim of regulating foreign trade. Over the past decades, many international agreements and laws have been developed that enhance the quantity and volume of foreign trade and regulate the movement of goods and services between countries. There are also bilateral agreements or regional trade alliances based on reciprocal economic interests which are codified and regulated to achieve this goal. (Dreyer, 2010)

International foreign trade depends on the general and declared international prices of goods exchanged between countries, which are determined by supply and demand and international policies. The pricing of goods and services may be agreed upon by the law of supply and demand, which works to bring about a balance in the quantities supplied and the quantities required. (Amroun, 2017)

Foreign trade, according to Cernat, is a measure of a country's economic advancement and success. The more nations that benefit from significant foreign commerce and openness to other countries, the more they may enhance the quality of life for their population and work to offer the tools for social, economic, and cultural advancement, not to mention the high rates of income. Other good indications of the state include the national economy and the decrease in unemployment. (Cernat, 2019)

In inland commerce, producers and buyers are from the same country, but in international trade, they are from separate nations. Also, Payments in foreign currency are a part of international trade. When commerce with other nations, different foreign currencies are used. It is crucial to mention that Imports and exports are subject to a variety of limitations imposed by various governments. Imports are often subjected to several import charges and limitations imposed by the importing country. (Lucas, 2009) Similarly, while transporting products beyond the nation, certain norms and regulations must be observed. The necessity for middlemen in foreign trade arises from the fact that the laws, regulations, and processes governing international trade are so complex that they need the use of intermediaries. They provide their services to ensure that commerce runs smoothly. There is a risk element because commodities are transported over vast distances and even overseas, the risk associated with foreign commerce is substantially larger. (Hayes, 2020) The Law of

Comparative Costs states that a country would specialize in producing commodities for which it has a cost advantage. These products are sold in other countries. It will, on the other hand, import items that have a cost disadvantage or no unique benefit. Governmental Control: Every country's overseas commerce is regulated by the government. It permits imports and exports and may have an impact on the nations with whom commerce is to be conducted.

3.4. Differences between internal trade and foreign trade:

Internal trade is the flow of goods and services between individuals who live in the same country, and both domestic and foreign trade have the same thing in common in that those who occur as a consequence of specialization and division of labor, which inevitably leads to the establishment of exchange, according to Amroun's findings (Amroun, 2017). However, this does not preclude the existence of some differences between the two trades that lie in the following:

- Internal trade is within the country's geographical or political borders, while foreign trade is at the world level.
- Internal trade takes place in one currency only, while foreign trade takes place in multiple currencies representing the countries involved in trade.
- Internal trade takes place under one economic and political system, while foreign trade takes place with different economic and political systems.
- Legislation regulating internal trade differs from international laws regulating foreign trade.
- Different methods of transport, there are regular methods of navigation, and some countries have a transport fleet for foreign trade, and 90% of the trade is carried out by sea transport and a small part is by land transport. (Verter, 2015)
- In the case of trade, the varied market circumstances and variables impacting it from the factors and conditions affecting international commerce.
- The difficulty of changing elements of production in overseas commerce contrasted to the ease with which they may be transferred in domestic trade.
- The difference in natural and atmospheric factors, which govern both internal trade and foreign trade
- The different degree of vulnerability to the stages of economic growth at the local and global levels, for both internal and external trade
- different political factors, different ways and methods of financing

 Foreign trade provides appropriate opportunities for trade blocs and monopolies, while these opportunities depend on the nature of the product being produced, and the local market in the case of foreign trade. (Amroun, 2017)

3.5. Classification of foreign trade:



Figure (2): classification of foreign trade

Source: Own elaboration, (Hayes, 2020)

a) Import trade:

It refers to buying items from another nation. Countries import commodities that they cannot create themselves, either due to financial constraints or physical constraints, or items that are not produced in sufficient numbers to suit their requirements. Because import transactions include payments to sellers in another country, according to Hayes there is an outflow of funds from the country. Import trading is used by a country to attain the following goals:

- To meet their product and service needs.
- Industrialisation progresses.
- A higher quality of living.
- Overcome adversity, such as natural disasters. (Hayes, 2020)

b) Export trade:

It refers to the transfer of goods from one country to another. In this trade, the products are sent outside of the country. It is defined as the movement of goods from one country to another. Export transactions result in an inflow of cash into the seller's nation since they include selling local goods and services to overseas clients. Hayes also explained that Export trading is used by a country to attain the following goals:

- Domestic Resources are being used to their full potential.
- Surplus production will be sold to generate revenue.
- Foreign Exchange Accumulation
- Raising National Income and Expanding Employment Prospects (Hayes, 2020)

c) Entrepot trade:

Entrepot commerce occurs when items are imported from one nation which are then modified or processed before being sold and exported to other countries. The items are imported not for domestic use or sale, but for re-export to a third nation. Entrepot trade is defined as the importation of foreign commodities for the aim of export. (Akrani, 2011)

3.6. Importance of foreign trade:

Foreign trade plays an important and key role in the development of the economies of countries, as it is a vital sector in any developed or developing society and is considered an indicator of the productive capacity and competitiveness in the foreign market, through the export and import capacity and its impact on the state's balance of foreign currencies and the trade balance. (Dawood, 2002) Foreign commerce is one of the most important areas in every civilization, as evidenced by the following:

- Obtaining products and services that are difficult to create locally for reasons that are due to the nature of the commodity in terms of its production requirements. in order to get the best potential satisfaction of goods and services than if there were no international commerce.
- Securing the needs of the developing country from the basic requirements for economic development such as capital, technology, sources of foreign labour, and modern management, which help to revitalize the various economic sectors in the national economy. (Akrani, 2011)

- It generates employment through importing mobility of labour and resource international trade directly generates employment in the import sector and indirectly to other sectors such as the services sector.
- Achieving the expected gains from obtaining goods and services at a lower cost, than if they were produced locally.
- Increasing national income depending on specialization in production and international division of labour. (Canton, 2021)
- Connecting countries and societies with each other, in addition to considering it a tool for disposing of surplus production from the needs of the local market.
- Considering it a fundamental indicator of countries' productive and competitive ability in the international market, due to the linkage of this indicator to the available production capabilities, the country's ability to export, its income levels and its ability to import, and the reflection of all of this on the country's balance of foreign labour and its effects on the trade balance.
- Transfer of technologies and basic information that are useful in building strong economies and promoting the inclusive development process. Importing capital goods and technology that will help in many sectors including agriculture, healthcare, manufacturing, and the service sector can help a country's economic development. (Verter, 2015)
- Achieving balance in the internal market as a result of achieving a balance between supply and demand.
- Improving tastes, fulfilling all requirements and desires, and satisfying needs. Importing
 innovative commodities and equipment expands the variety of new and improved goods and
 technology available, making people's lives more modern and convenient. As a result, the level
 of living develops. (Rahban 2013)
- Establishing friendly and friendly relations with other countries it deals with. Trade agreements bring countries closer together, encouraging them to be friendly and loyal to one another, reducing the likelihood of conflicts.
- Political globalization that seeks to remove borders and shorten distances and which tries to make the world a new village and contributes to globalization.

The significance of international trade varies per country, and according to Amroun, we may divide nations into three groups based on their foreign trade importance:

• **Large countries** with the most diversified economies, the economies of these countries are characterized by diversity in products and therefore the importance of foreign trade in them, where the ratio of foreign trade to GDP is low, as in the United States of America, which extends across an entire continent and is characterized by its richness in a variety of resources natural and human.

• **Small countries** with more specialized economies, their foreign trade rises to their GDP, and consequently, the importance of foreign trade increases, such as Switzerland and Austria, and even large industrial countries such as Japan, Germany, France, England, Italy, and Canada depend heavily on international trade.

• **Developing countries**, the importance of foreign trade increases due to the increasing degree of specialization in the production and export of a limited number of primary products such as Egypt, India, and Mexico. Therefore, the ratio of foreign trade to GDP is high, and exports also enable these countries to make good use of their resources. And providing more job opportunities in export-oriented activities. Imports also enable these countries to obtain many necessary commodities and modern technologies that are not available at home. (Amroun, 2017)

3.7. Reasons for establishing foreign trade:

The reasons for establishing foreign trade between countries can be explained by the roots of the economic problem, or what the economists call the problem of relative scarcity, many countries lack natural resources such as oil and gas, forcing them to import from other countries. One of the essential rules of international trade, according to Krugman, is that "a country should always buy commodity, goods, or materials from nations with cheap prices and always sell to those with high prices." (Krugman, 2012). According to this theory, not only affluent countries but also developing and underdeveloped countries will profit. On the one hand, they can export their resources at a profit, while on the other, they can import machines and technologies. Living in a modern world, trading has become increasingly important in meeting our needs. Trading on the worldwide market provides advantageous chances to purchase things that are not available in that country. The most important reasons for foreign trade are:

- Achieving self-sufficiency: no country can be completely self-reliant due to the unequal distribution of the factors of production to the different countries, poor material, or human capabilities, or both. Adding that not every country has the same sufficient capabilities to produce all goods and services.

- International specialization: It has already been demonstrated that, because to the disparity in the distribution of natural and acquired wealth across the world's countries, countries cannot rely alone on themselves to meet the demands of their citizens. As a result, each country must specialize in the manufacture of certain commodities that its natural resources, circumstances, and economic skills qualify it to produce at lower prices and with more efficiency.
- The difference in production costs: The difference in production costs between countries is a motive for trade between them, especially in countries that have the so-called economies of scale, and this large production leads to a reduction in the average quantitative cost of the unit produced compared to the other country produced in quantities that are not abundant and thus have higher production costs, which gives The first country has a comparative advantage in production compared to the second country, which is mostly due to the different environmental factors. (Abrams, 1980)
- Different production conditions: Some areas with a seasonal climate are suitable for growing rice and coffee. They must specialize in this type of agricultural product and import other products that you do not produce, such as oil that is available in countries with desert climates such as the Arab Gulf states.
- Different tendencies and tastes: the local citizen prefer foreign products even if a local alternative is available. The importance of this factor increases with the increase in per capita income in the country.
- The difference in the level of technology from one country to another, and the citizens' quest to obtain products with the best technology.
- Obtaining profits from foreign trade due to price differences or the abundance of factors of
 production and thus lower prices and achieve the advantage of price competition.
- Raising the standard of living of citizens through the efforts of governments through foreign trade to obtain goods and services that meet needs and satisfy desires. (Borad, 2021)

3.8. Foreign trade goals:

Foreign trade policy works to achieve a set of economic and social objectives and they have been clarified by Al-Kawaz as follows: (al-Kawaz, 2014)

 Maximum benefit from surplus production, as export leads to an increase in the national product, which is reflected in the employment situation and the provision of necessary and basic commodities, and vice versa, as weak export leads to a loss in the national product and a reduction in its contribution to the state, increasing unemployment and deteriorating the standard of living of individuals.

- Importing the necessary commodities that cannot be produced locally for some reason. For example, it is possible to import the necessary machinery and equipment needed to build a textile factory, as this factory can provide many job opportunities, thus contributing to the export process and increasing incomes and national output.
- Import substitution, depending on the cost component, might generate administrative and capital challenges, as well as technical capability concerns, but it helps to promote trade policy, and therefore significant export operations can be carried out. Some goods, on the other hand, can be produced locally, but the cost of doing so is higher than the cost of importing them. Government policies have a significant impact in this sector, and this is a common occurrence in developing nations. (Akrani, 2011)
- Transfer of technology and technology to build and restructure the country's infrastructure.
- Take advantage of information technology as the only way for developing countries to safely cross and narrow the gap between developed and developing countries. For example, India was able to export programs and compete with developed countries.
- Studying the balance of payments of countries, their exchange rate systems and addressing the imbalance and balance in the balance of payments.
- Studying the trade policies adopted by those countries in the field of foreign trade, such as protection or freedom policy, and so on.
- The study of international relations within the framework of international economic blocs and their distinctive features.
- Increasing the resources of the state's public treasury and using them to finance public expenditures in all its forms and its types.
- Protecting the local industry from foreign competition.
- Protecting the national economy from the danger of dumping, which represents price discrimination in the field of foreign trade, i.e. selling at a price lower than production costs.
- Protecting the emerging industry, i.e. the new industry in the country, where appropriate conditions and support must be provided for it. (al-Kawaz, 2014)

- Protecting the national economy from external fluctuations that occur outside the scope of the national economy, such as cases of deflation and inflation
- Protecting the interests of some social groups, such as the interests of farmers or producers of certain commodities that are necessary or essential in the state.
- Redistribution of national income among the different classes and classes.

3.9. Foreign trade risks:

Al-Kawaz explained that foreign trade between countries is exposed to many risks, which arise due to political, economic, social conditions and other reasons, which must be considered when dealing with the foreign trade process and to develop alternative plans to solve problems and crises that may arise as a result of the circumstances, including: (al-Kawaz, 2014)

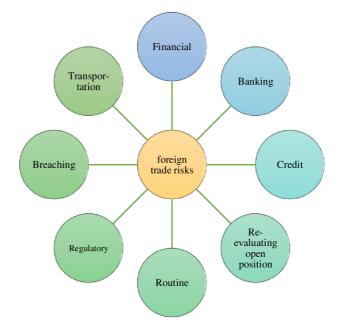


Figure (3): Foreign trade risks

Source: Own elaboration, (al-Kawaz, 2014)

- Financial risks: These are those risks that arise because of the change in exchange rates between countries as a result of floating currency rates and the constant fluctuations in them, which makes it difficult to secure sufficient funds by banks required by foreign trade deals, so countries must hedge or reduce such risks. By mobilizing sufficient funds, developing financial investments, and effective planning, which through current policies can curb such risks and reduce their impact on foreign trade in the country.

- Banking risks: The bank may be hindered in financing banking activities because of its inability to pay interest for the deposited funds for a period of 24 hours, which determines its ability to secure what is required of it to pay or secure the funds necessary to finance current transactions, especially considering the significant rise in interest rates from order to fund foreign currency accounts.
- Credit risks: The contracts concluded between the parties dealing in foreign trade include the terms of the obligation to deliver agreed-upon money and goods on time, but the occurrence of cases of non-fulfilment and breach of this condition because of the credit inability of one of the parties to the monetary contract causes confusion or major losses in trade. Or commercial transactions and those losses may incur more losses when the receipt of that money entails carrying out other financial operations based on those commercial transactions and the money obtained from them. (al-Kawaz, 2014)
- Risks of re-evaluating open positions: Banks re-evaluate foreign currencies, or the so-called evaluation of open positions, and this is done on a specific day of each month. Banks follow several methods in this process, i.e. re-evaluate open positions in foreign currencies, but the most common and successive method with banks It is the adoption of the highest possible market price on the day chosen as the day of the revaluation and this may cause significant financial losses to the bank conducting the revaluation process.
- Routine risks: Some hazards are associated with international trade activities or phases, such as the inclusion of currency at a rate other than the one that must be dealt with, or a mistake that happens as a consequence of depositing money in accounts other than the agreed-upon accounts. These mistakes are frequently caused by speed and a lack of attention. And the volume of labour necessitates meticulous precision, scrutiny, and auditing of banking processes in order to avoid costly errors.
- Regulatory risks: Financial risks arise in regulatory matters as a result of making changes or amendments to the applicable regulations, which causes confusion in work, especially in the case of duplication of laws, or lack of understanding or application in a different way, which requires an appropriate change in-law and regulation and what fits the agreed terms in contracts. hammered out. (Heakal, 2021)

- Risks of breaching the commitment: one of the parties to the commercial contract may revoke it through his failure to comply with it or implement it. Here, a distinction must be made between voluntary and involuntary denunciation. As for voluntary denunciation, there is a reversal that results from the failure of one of the parties to implement the contract and abide by what was stated in its clauses. (Lucas, 2009)

This is called a type of commercial veto, As for the involuntary denunciation, it is the result of circumstances outside the will of the party who violated the contract, such as changing laws or regulations, or exposure to natural disasters and other force majeure circumstances that prevent the implementation of the contract and commitment to what is stated in it, and what increases the danger of this type of risk is the inability of the losing party as a result of an operation Rescinding the follow-up and claiming compensation by filing a lawsuit against the party in breach of the contract, and the contracting parties can reduce these risks by entering into this risk insurance process, good forecasting of credit risks, following different financing methods, and entering into future and forward contracts, which would form investment portfolios. able to reduce expected risks.

- Transportation risks: One of the differences between foreign trade and domestic trade is the need for foreign trade to move between countries and their passage within different international and customs laws, which may expose them to more risks than domestic trade and require an increase in transportation and shipping costs, which exposes organizations to great danger and those organizations must do By insuring the goods through the competent insurance organizations for fear of the goods being exposed to theft, damage or burning and other risks to which they are exposed during transport operations between countries. (Verter, 2015)

3.10. Foreign trade areas:



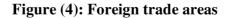
Labour mobility

Productive

labour

Administrative

labour



Source: Own elaboration, (Amroun, 2017)

goods and

services

services

The fields of foreign trade can be divided into:

1. goods and services:

visible goods

This field of international exchange is considered one of the first and oldest fields covered by the international exchange between

Skilled labour

societies and some on the basis that they are:

- Visible Goods or Visible Trade: These include raw materials for production, intermediate or semi-finished goods, and finished goods.
- Services: these are the latest forms of trade exchange between different countries, Before the introduction of money, trade was conducted in kind, with things being exchanged for other goods, raw materials, intermediate or semi-manufactured items being exchanged for raw materials, and completed goods being exchanged for finished goods for final consumption. Intermediary consumption refers to the consumption of raw materials and intermediate items, Consumption of finished products and services is referred to as "final consumption" since it occurs when something is consumed or utilized to meet one's own needs. (Amroun, 2017)

Minerals, natural resources, forest products, and animal production are all regarded raw materials that the earth element contains as one of the production elements, and all of these items are considered raw materials. Produced with the use of the earth element, The finished commodities are the outcome of the interplay of the components of land and capital, as well as the labor of people, which leads to the creation of ready-made items to meet the diverse, varied, and limitless demands. Services are one of the unseen audio fields that are transferred in order to gain a specified yet real advantage. For example, tourist and navigation services, film exchanges, other people's intellectual creation, and others such as patents and rights to utilize current technology, as well as foreign exchange labor transfers in the form of cash. (Saqr, Ismail, and Khoury, 2019)

There are many factors affecting the exchange of goods and services at the global level, including:

- a. **Costs or prices**: meaning the extent to which each of these elements isinvolved in trade costs and in the light of which the prices of the exchange are determined at the world level, meaning each country determines the prices of its goods and services and leaves the foreign consumer the freedom to choose among the products of all countries of the world in the markets. (Canton, 2021) Therefore, we find that the countries that rise in which the costs related to the preparation, production, and processing of services lead to a rise in the costs of its products, and they become of high prices that are communicated to consumers in various markets of the world and usually include transportation, shipping, clearance, customs, and insurance services, sometimes in case of danger. (Borad, 2021) Thus, we find that goods that are produced at low costs and sold at low prices are more in demand than the rest of the most expensive and priced goods, meaning that their ability to Competition is ultimately determined by price as one of the factors affecting demand.
- b. Quality: It is one of the different elements in the properties inherent in the goods and their ability to be satisfied and their suitability to the different conditions related to the use of them, and this means that the commodity is not subject to the speed of damage or the poor quality of the components used in its manufacture or the ability to satisfy the needs for a longer period of time, so it does not spoil in storage, and is not exposed to spoilage. (Heakal, 2021) Rapid transit, It does not leave side effects when used, as it does not cause specific diseases from its consumption or pollution to the local environment or effects on its constituent properties when used so that it becomes like a completely different commodity, and this is linked to international

competition in global markets that are permanently affected by modern technological developments that make their Differences in quality for the same commodity produced from different parts of the world almost daily.

- c. Administrative procedures: This means that there are no customs or bureaucratic problems, or obstacles related to the entry and exit of the commodity, which hinders the arrival of the commodity to the consumer. The easier the procedures are, the more they encourage exports and trade exchange in general. (Canton, 2021)
- d. **Transportation**: It is an important element on the basis that whenever there is an ease in transporting goods by air, river, land or sea, the greater there will be a commercial exchange, in case of difficulty in transportation or the length of the journey in transporting goods, this leads to a reduction in the volume of foreign trade. (Borad, 2021) Trade exchange between countries takes place on a wide geographical scale, unlike the case within the country. In these cases, we find that the transportation means must fit the nature of the transported commodity, and this is a prerequisite to ensure that the commodity reaches the required specifications and quality to the consumer anywhere in the world. Therefore, we find that some commodities are transported in means of transporting pipelines (natural gas) or containers to transport goods. dry and achieves spatial advantage.
- e. **Storage**: The more the commodity can be stored so as to achieve the benefit of time, the greater the volume of trade exchange in this type of commodity, and due to the long-time taken by the sea voyage and waiting in the ports, which may exceed three months in some cases, this may expose the goods to damage if their properties are not It allows to stay longer, and the storage achieves the benefit of time;
- f. **Global economic boom and depression**: The global economy is the sum of the economies of countries, and if there is a boom or recovery in the global economy, it means that there is an increase in demand for production and other production elements, which includes an increase in demand for raw materials for manufacturing, intermediate goods, and finished goods industry, and the increase in popularity results in an increase in global economic growth.
- g. Political conditions: We find that political relations between countries and each other entail facilitations for exporters and importers and granting preferences to friendly countries and their children in the case of benefiting from the services provided by countries to each other. (Akrani, 2011) This is linked to the political conditions as well as the existence of a kind of security from the risks that projects and individuals can be exposed to, which makes Individuals deal with

politically stable countries and countries that are away from areas of political turmoil and war, This was made clear in the recent period in the Gulf War when the volume of trade exchange with the countries of the Arab region decreased, the movement of capital to them decreased, the number of tourists decreased, and insurance, shipping, and storage costs increased, which led to a decrease in the movement of trade exchange between the countries of the world and the Arab countries in general.

- h. **Relative scarcity**: meaning that there is no specific volume of goods and services in countries commensurate with the special needs of these countries, meaning that it is possible that there is an absolute scarcity of one of the goods, but it does not cause problems and there is no need for exchange. As for the relative scarcity, it governs the relationship between what is available and what is required. of various goods and services, which results in a discrepancy between what is available to the state of goods and services and its need for these goods and services. If these goods are not sufficient for the needs, they must be imported. (Canton, 2021)
- i. **Economic blocs**: For example: the bloc of the united European countries, the naphtha bloc, the EFTA bloc, as well as some commodities such as wheat, coffee, tea, copper, lead, sugar...etc. Giving preferences to other countries to influence the movement of international exchange with the countries of the bloc and its allies, and less with the countries that are not members of the bloc and not allied with other countries.
- j. **Financing**: Any exchange between countries and some of them depends on financing. If there are financial organizations, banks and correspondents around the world, this leads to an increase in the volume of foreign trade in goods and services. If there are no correspondent banks or banking transactions between some countries and other countries, this reduces of the volume of trade exchange in goods and services between these countries, It is noted that there are some funding organizations that are established within the framework of the United Nations, in addition to some commercial banks that finance trade or specialize in the field of foreign trade financing and open documentary credits and navigational letters of guarantee, such as import and export banks, export development banks, foreign trade credit banks, etc. (Heakal, 2021)

2. Employment or labour mobility at the international level:

(skilled labour in rare specialties - unskilled and direct productive labour – administrative labour) these types of labour are considered to have supply and demand at the global level, and the wage for them is determined according to the relationship between supply and demand for it, such as

any or service, taking into account the factors that determine the return of the labour element or wage and the difference in that at the local level at the global level, and these types of labour when it moves, it is sometimes called temporary migration, But in the case of permanent residence, it becomes permanent migration, and these types of labour left to search for a better job opportunity and the countries that request them to need their services for a certain period of time, and then return again to the countries from which they came, and permanent residence does not enter into foreign trade because any transactions for workers With the country to which he (origin) belongs, it is carried out on the basis that they are dealing with foreigners. (Ibtissam and Iman, 2017)

- skilled labour in rare specialties: This refers to high-quality, highly specialized talents, competences, and knowledge in certain professions and modern domains, such as energy, electronics, and computer specialists. Due to its high productivity and contribution to achieving profits for producers in countries that are considered developed, this type of labour is the most sought-after in the global trade exchange. In the meantime, the supply of this type of labour is insignificant in comparison to the rest of the labour types.
- Unskilled and direct productive labour: It refers to the labour force that does physical labour or the proprietors of blue-collar businesses, both of which are essential in industrialized nations that rely on intense effort rather than automation. In comparison to other firms, such ventures do not need current science or a big amount of cash.
- Administrative labour: Individuals who work as managers, whether at the supervisory level, middle management, or senior management, and who direct the human element and benefit from their experience in the most appropriate areas within projects, work on shortening procedures and establishing organizational structures, have the ability to bear risks resulting from losses, and are characterized by a love of adventure and courage in decision-making (leading figure), and this category of employment is also a rare category. (Dreyer, 2010)

3.11. International Trade and International Specialization:

There is a reciprocal relationship between international trade and international specialization, where international trade is closely related to the phenomenon of specialization and division of labour at the international level, Without the establishment of international trade, some countries would not have specialized in the production of goods and services in quantities that exceed their needs. On the other hand, had it not been for the existence of specialization, each country would

have produced the various goods and services it needed, and international trade would not have taken place. (Rahbani, 2013)

It is noted at the global level that no country can achieve a policy of complete self-sufficiency for a long period of time. Specialization and division of labour at the international level are closely related to international trade.

This was confirmed by classical economists such as Adam Smith, who said that if an individual specializes in performing one job, he will master it and his skill level will rise, thus increasing his productivity and thus obtaining a higher level of economic well-being.

Ashkar pointed that international specialization is due to a number of factors, the most important of which are:

- Different natural conditions such as agricultural land, oil
- Extent of abundance and scarcity of factors of production such as population density and therefore the labour force.
- transportation fees.
- Availability of modern technology. (Ashkar, 2017)



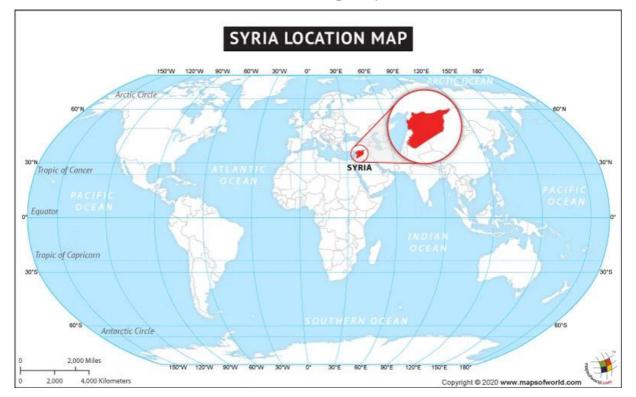
Picture (1): Specialization and Trade

Source: https://prezi.com/

4. Practical part:

4.1. Syria's location and importance:

The geographical framework that dictates a place's contacts with other places is represented by the location, and it is one of the most significant components in the state's character as well as its political and economic ties with its neighbours and the rest of the world. It commonly differentiates between two sorts of locations: astronomical and geographical. (Al Rabiei and Fadel, 2017)





Source: https://www.mapsofworld.com/

In terms of the astronomical location, we find that Syria occupies the north-western corner of the Arab world, between latitudes 19-32.5 and 20-37.5 north of the equator and longitudes 37-35.5 and 23-42.5 east of Greenwich, and overlooks the Mediterranean Sea from the eastern side, representing the main gateway to Western Asia.

The astronomical position is usually linked to the climatic conditions, and its reflection on the overall vital geography and economic activity of the state (agriculture, industry, and trade). Sugar

beet, olives, citrus fruits, apples, and vine. This means the possibility of the existence of a surplus of these agricultural products, and then their participation in the foreign trade of Syria. These products constituted about 5% of the total value of Syrian exports for the year 2008. (Abhyankar, 2020)

As for the geographical location, it reflects the state's position in terms of water and land and its location in terms of land and water, it is located in the warm temperate zone within the Mediterranean climate, which is characterized by hot, dry, sunny summers and mild and rainy winters. This astronomical site is very important, as it determined to a large extent the economic and political character of Syria Continents and countries of the world, and the site is one of the centres of civilizational gravity, because of this of a very important impact on the economic activity of the state, especially its commercial activity with other countries.

Syria is situated in the center of the ancient world, in the middle of the continents, and so serves as a bridge and a corridor for transit routes connecting the continents of the ancient world. Since the dawn of time, Syria has served as a venue for worldwide civilized relations. The geographical location of Syria has facilitated its contact with the outside world. Since ancient times, Syria has been distinguished by its commercial location, which enabled it to play an important role in international trade. It is the link between Asia, Europe, and Africa. Since it is located in the western part of the continent of Asia. Syria's total land border is (2253) km, divided between Turkey in the north, Iraq in the east and south, and Jordan in the south. Syria borders Lebanon, Palestine, and the Mediterranean Sea with a coastline of 193 km and territorial waters (2316) km. (Amroun, 2017)

Syria's commercial location was greatly affected by the transformation of the trade routes into the Cape of Good Hope, and this influence increased after the opening of the Suez Canal, which weakened Syria's role as a road to global trade, but this effect was temporary as Syria regained its important position on the international trade route, especially after the means of developing Mosul, and in particular, air transport, which depends on Syria as a corridor for most of the air routes between East and West.

The importance of the geographical location in Syria's foreign trade is reflected in the increase in the value of its trade with the Arab countries because it is part of a large Arab country that links the countries with many common interests, as well as the increase in trade exchanges with Turkey and European countries due to geographical proximity. (Al Rabiei and Fadel, 2017)

Syria's location on the Mediterranean coast has increased the value and importance of its geographical location, not only regionally but globally, due to the geostrategic importance of this body of water due to its significant geographical location on the globe, as it mediates the continents of the ancient world, as it was a bridge to cross between the three continents, and an important station for the Silk Road, becoming an important centre for trade. (Abhyankar, 2020) What increased the sensitivity of the geostrategic location of the Mediterranean is the extension of a wide and dense network in its southern and eastern part of pipelines transporting crude oil and natural gas coming from the Asian part of the Arab world and North Africa heading to the European market. This exceptional importance of the Mediterranean made it the focus of the attention of the major powers and regionalism and the subject of competition and conflict, achieving balances between the great powers, and seeking to obtain areas of influence in the countries bordering on it for centuries.

What increased the importance of the geographical location after 2011 was the large reserves of natural gas in the Mediterranean coasts facing the Syrian coast. A report by ESCWA estimated the geological reserve of natural gas at about (705) billion cubic meters, while the recoverable reserve amounted to (405) billion cubic meters of all kinds in Syria, and the advantage of these discoveries that doubled that importance is their presence near the export ports through the Mediterranean, as well as Syria's proximity to markets to European countries. Based on the foregoing, it can be said that Syria has geo-strategic positional advantages that cannot be ignored. Because of its geographical location overlooking the Mediterranean and centred in the heart of the ancient world, which constitutes a link between the East and the West, whether in times of peace (international trade, navigation, and transportation of all kinds) or in times of war, which was a major reason for the competition of major countries to obtain influence in it (politically or militarily or economically). (Al Rabiei and Fadel, 2017)

4.2. Availability of resources:

Resources of all kinds constitute one of the most important elements that enter into the foreign trade of any country, and the availability of these resources on the country's land means the possibility of exporting them to other countries, but if they are not available, they need to be imported from other countries. The resources are usually agricultural resources, mineral ores, energy, as well as industrial products. (Mohsen, Chua and Sab, 2017)

- agricultural resources:

Syria possesses a good number of agricultural resources that it can export abroad, at the forefront of which are grains, especially wheat, cotton, citrus fruits and fruits (apples), as well as animal products. Trade in agricultural products is of great importance in developing the national economy through what it contributes to achieving food security, discharging the surplus of agricultural production to global markets, and securing the foreign exchange needed to cover the agricultural sector imports first, and secondly supporting the national economy.

- Mineral ores and energy resources:

Despite Syria's poverty in the mineral wealth resources necessary for economic development, the availability of which could positively reflect on foreign trade through the development of the industrial sector depending on such resources, this does not mean that there is no kind of resources in Syria that can participate in foreign trade, Syria possesses some mineral resources of great economic importance, such as phosphates and oil. (Abhyankar, 2020)

A. Oil

Gas and oil are among the most important natural resources in Syria. Oil production began in Syria in 1968, with small quantities exceeding 4 million tons at that time, and with Syria heading towards comprehensive economic development that depends on the development of the industrial sector, both extractive and transformative. Oil investments expanded and production increased to reach 10 million tons in 1976, and from that date a boom appeared in production, as it began to increase at high rates, due to the entry of the production of light oil by foreign companies (service contract companies), and this increase continued until 1995, when Production reached 34,277 thousand cubic meters (19.31 million tons) at a rate of 590,000 barrels per day, then production gradually declined until 2002, when there was an unexpected increase in production and it reached its highest levels since oil production began in Syria. 36,222 thousand cubic meters (96.32 million tons), an average of 625 thousand barrels per day, but it returned and fell to its lowest levels in 2008, as production reached 20,245 thousand cubic meters (42.18 million tons), an average of 4,349 thousand barrels per day. according to the Ferrell Centre for Studies, which confirmed that if this gas was extracted, Syria would become the third gas-exporting country in the world, estimating the Syrian gas reserves at 28.5 billion cubic meters.

B. Phosphates

Phosphate deposits occur in several areas in Syria, the most important of which are the Palmyra Valley and in the northern part of the coastal mountain chain, in the upper Cretaceous layers until the Miocene. The main deposits of phosphate ores are in the Palmyra Mountain range, in the Hammad region, and the coastal region. The General Company for Phosphate and Mines invests phosphates in the Khneifis, Sharqia, and Ghadir Hamel regions. Production in 2008 reached 629.2 million tons of concentrated phosphate, and the general reserve of phosphate ores is estimated at 550 million tons. Its phosphate concentration varies from 22% to 34%.

C. Petroleum

Petroleum is one of Syria's most valuable natural resources, with the majority of its reserves concentrated in the Mesopotamian depression, particularly in the north-eastern region of the country. Lower Jurassic and Triassic upper and fissured dolomitic rocks. Krachuk, Sweda, and Rmelan are the most important fields discovered. (Al Rabiei and Fadel, 2017)

There exist many other natural resources in Syria, in addition to some important resources that are used as raw materials in the industry. Those resources include the following: (rock salt, plaster, asphalt, iron, chromium, clay, sand, limestone, basalt rocks, manganese, lead, copper, uranium, And non-metallic sulphur, talc, and asbestos)

D. Rock salt

deposits of rock salt occur in the northern and north-eastern region of Syria in the Neogene layers, (General reserve: billion tons)

E. Plaster

Plaster deposits are found in large quantities in the eastern, north-eastern and coastal regions of Syria. Its age goes back to the Neogene, and in the Palmyra series, and its age goes back to the Jurassic - Cretaceous, and in the Jayrud region, which is a modern quadrant. Plaster is used in construction works and in the cement industry.

F. Asphalt

which is cracked limestone impregnated with bitumen, and its age dates to the Upper Cretaceous and Upper Eocene and Miocene, which is Quartzite sandstones also impregnated with bitumen. (General reserve: 50 million tons) (Mohsen, Chua and Sab, 2017)

G. Iron

Several areas are known to be rich in sedimentary iron deposits in Syria, which date back to the Lower Cretaceous and consist of hematite, limonite, and gout. (General reserve: 110 million tons)

H. Chromium

There are chromium deposits in the Al-Basit region accompanying the green rocks and are in the form of veins or lenses within the peridotite rocks. (General reserve: 20 thousand tons)

I. Manganese

Its deposits are found in the simple area and date back to the Middle Ages. They accompany green ophiolite rocks and are in lenticular or coagulant forms within the siliceous clay rocks. (General reserve: 20 thousand tons)

J. Lead

Jurassic deposits are found in the Harmon Mountains, which are small veins within the dolomite rocks. (Al Rabiei and Fadel, 2017)

K. Copper

Its deposits are found in the simple area, and it is composed of chalcopyrite and malachite.

L. Uranium

Its deposits are found in different areas of the Palmyra chain, where phosphate deposits are spread and the percentage of uranium in phosphate reaches 70 to 140 grams per ton.

M. Sulphur

There are deposits of free sulphur close to the surface in the area of Al-Shira ochre (Palmyra). The deposits consist of black clay sediments in which small veins and yellow sulphur spots appear. The sulphur percentage ranges from 0.6-30%. Free sulphur was also discovered in the deep island regions where it flows.

N. Talc

There are sediments accompanying the peridotite rocks in the Al-Baseet region and result from the corruption of peridotite. These deposits consist of talc and chlorite.

O. Asbestos

Its deposits are found in the Al-Basit region accompanying the rocks above the base. These deposits are represented by very small veins composed of short fibres of asbestos. (Abhyankar, 2020)

- Manufacturing resources:

The relationship between the manufacturing sector and the foreign trade sector is very close, and this relationship is shown by what the industry sector offers from capital formation goods (machines, equipment, equipment, and tools) and from the primary and basic auxiliary materials through import, and what it provides to foreign markets through export, Therefore, any defect or deficiency in the foreign trade sector is directly or indirectly reflected on the industry sector, whether instantaneously or in the long run and vice versa. (Al Rabiei and Fadel, 2017)

4.3. Syria's trading partners:

The geographical distribution of Syrian foreign trade is affected by two groups of factors: production structures and foreign relations with the countries of the world. The impact of the first factor is clearly visible in imports, due to the dependence of the Syrian economy to secure its needs of machinery, equipment and industrial tools on the industrially advanced countries, and this makes the link strong with these countries. The second factor affects Syrian exports, as these exports are mainly directed to countries with which Syria has good economic relations. Under the influence of these two factors, we find that there is a geographical concentration of Syrian trade in exports and imports. (Al Rabiei and Fadel, 2017)

The European Union had the largest proportion in Syrian exports with a percentage of 40%, followed by Arab nations with a percentage of 39%, as seen in the following figure (5) of the exporting countries in 2011.

While the proportions of exporting countries have changed dramatically in 2019, as shown in figure (6), Arab countries have taken the lead with the highest percentage of 79 percent, with Saudi Arabia is the major exporting partner, while European countries have seen a massive drop in their proportion, which has dropped by over 24 percent since 2011.

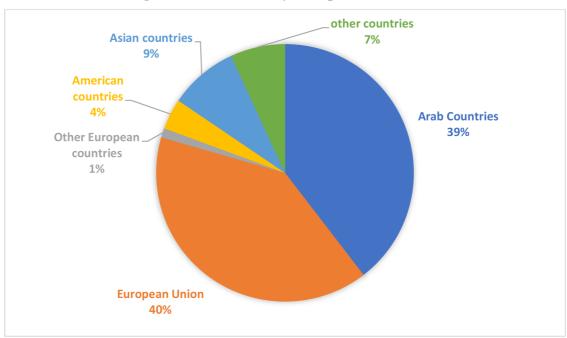


Figure (5): Countries Syria exported to in 2011

Source: Own elaboration, National Statistical Office, 2020.

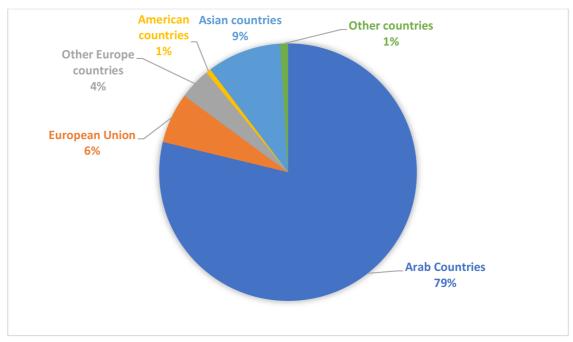


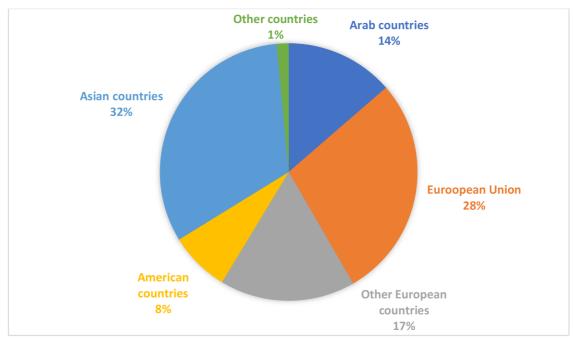
Figure (6): Countries Syria exported to in 2019

Source: Own elaboration, National Statistical Office, 2020.

The significant shift in shares can be explained by the EU and US imposing restrictive sanctions on Syria in response to the Syrian crisis, which have had an impact on bilateral trade. Import restrictions on crude oil and petroleum products, as well as dual-use commodities, critical oil and gas equipment and technology, and some telecommunications and luxury items.

In the following figure (7), we can see that the proportions of European Union and Arab nations as importing countries are comparable or near, with Arab countries leading the way as the principal countries from which Syria buys with the highest share of 32%, followed by European Union countries with a share of 28%.

Figure (8), on the other hand, shows how Syria's imports have migrated away from its historically key importing partners and toward other nations. This can also be explained by the restrictive measures in place, given the growing trade deficit (i.e., more imports than exports), which has an impact on foreign currency reserves, as a result, Syria is looking for alternative importing countries that can supply the country's demands at a lower cost.





Source: Own elaboration, National Statistical Office, 2020.

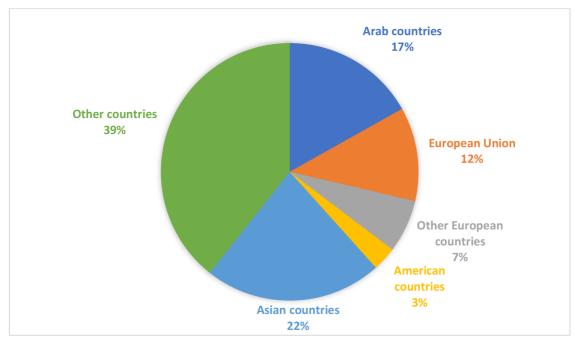
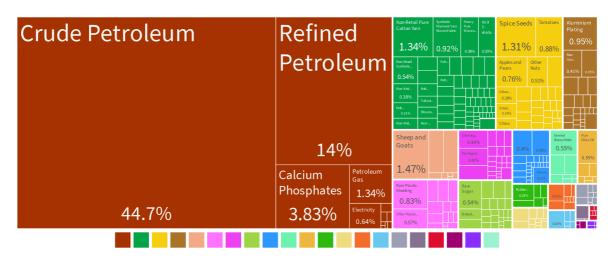


Figure (8): Countries Syria imported from in 2019

Source: Own elaboration, National Statistical Office, 2020.

4.4. What has Syria exported and imported

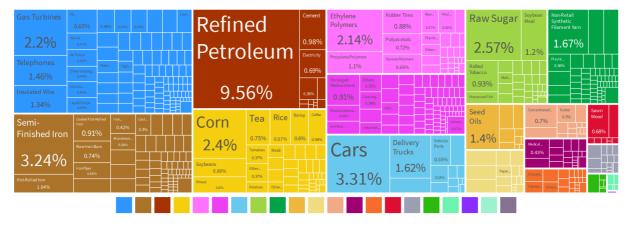
As seen in Picture (3), Syria's largest exports in 2011 were mineral items, with crude petroleum accounting for 44.7 percent of total exports, followed by textile and vegetable products.



Picture (3): Syria's exports in 2011

Source: https://oec.world/

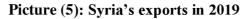
According to 2011 imports, which are depicted in Picture (4), Syria's biggest imports were in the following order: Machineries, metals, and Mineral goods.



Picture (4): Syria's imports in 2011

Source: <u>https://oec.world/</u>

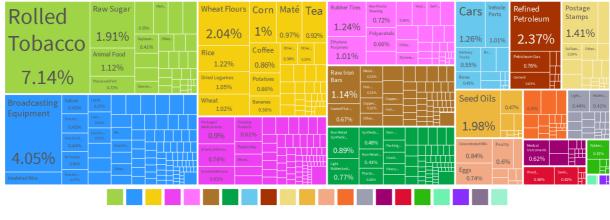
After years of warfare, there has been a noticeable shift in Syrian exports in 2019. Oil reserves have been severely damaged over the years, and the nation is no longer able to produce enough for export or even to meet local demands. Mineral item exports have a very low percentage of total exports, as seen in Picture (5) compared to 2011. In 2019, Syria's top three exports were vegetables, animal and vegetable bi-products, and textiles.



Spice Seeds	Apples and Pears 3.56%	s Fru	uits	pices 2.09%	Pur Oil	e Ol	ive	Э	Baked Goods 1.38% Jams 1.35% Pickled Foods	Other Processed Vegetables 0.979 Chocolate 0.31% Other_		Cleanin Product	s 0 1.68%
9.92%	Dried Tro Legumes ^{Fru}		Citrus	Preserved Vegetables					1.33%	Other Processed Glass Bottles	Raw	0.58%	Artificial
Other Nuts	1.75% 1.4 Barley	18%		Perfume		16.8	3%		Stone 1 76%	0.66%		0.74	
6.36%	1.26% Other Fruits	1.03 %			Wool 1.44%	Felt or Coated Fabric Garments 0.81%		Other Knit 0.43%	Cheese 1.01% Fermented Mik Products 0.83%	0.36%	0.25%	0.52% Jewelle	y _{02%}
Tomatoes 3.64%	1.26% Other Oily Seeds	0.65% Onions 0.51%	0.39%		1.44% Knit Men's Suits 0.99%	Non-Retail Pure Cotton Yam 0.72% KrittSocks and 0.54%		House 0.19%	Calcium Phosphates 1.77%	Marble 0.29%	Plastic 0.27%	0.74	

Source: https://oec.world/

Imports in 2019 have also shifted in structure, as shown in Picture (6), with foodstuffs accounting for the largest part of country imports, followed by machinery and vegetable products.



Picture (6): Syria's imports in 2019

4.5. Development of the Syrian trade balance during the period (2011 – 2019)

The trade balance expresses the final outcome of the difference between merchandise exports and merchandise imports, and the status of the trade balance will be presented during the research study period 2011–2019.

Year	Exports	Imports	Balance of trade (exports – imports)	Coverage ratio* (exports/imports) (%)
2011	505107	964928	-459821	52.3
2012	196452	794277	-597825	24.7
2013	174933	944962	-770029	18.5
2014	175759	1562846	-1387089	11.2
2015	210065	1497340	-1287275	14
2016	328519	2238472	-1909953	14.6

Table (1): development of the Syrian trade balance (value in Million SYP)

Source: <u>https://oec.world/</u>

2017	351018	3019922	-2668904	11.6
2018	1047662	3007769	-1960107	34.5
2019	1138890	2982669	-1843780	38.2
average	458715.6578	1890350.024		24.4

Source: National statistical office, 2020.

The values in this table are in current prices and in Syrian pounds based on the official foreign exchange rate.

*Coverage percentage prepared by the researcher depending on the data of National Statistical Office

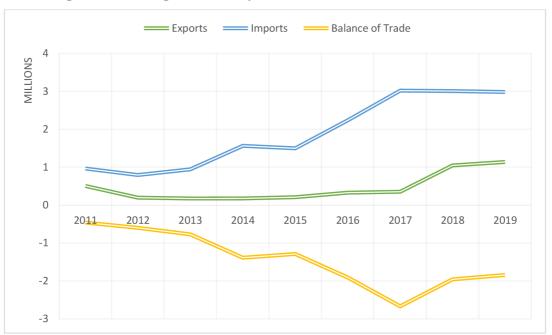


Figure (9): Foreign trade in Syria 2011-2019 (value in Million SYP)

Source: Own elaboration, National Statistical Office, 2020.

In the statistics contained in Table No. (1), which include the war period (2011-2019), we note that the average exports during the studied period did not exceed 458,715.7 million SYP, while the average imports amounted to 1,890,350 million SYP, which is 4.12 times higher than the average exports. During the same period, from the above, we note that the trade balance suffers from a chronic and continuous deficit during the study period in general, and the deficit has worsened significantly due the ongoing conflict.

- The Ratio of exports to imports coverage (coverage rate)

The ratio of exports to imports coverage (coverage rate) is one of the important statistical tools that provide information on the trade performance of any economy. This criterion refers to the country's commercial position and the importance and efficiency of its foreign trade and its ability to cover the expenditures of its quantitative imports from the proceeds of its exports. If the ratio is over 100% it indicates that there is a surplus in the country's trade balance, which contributes to an increase in economic growth, and this indicates that the value of exports is sufficient to meet import expenditures, and the state provides foreign exchange for that, and it is calculated from the following equation:

Export coverage ratio for imports (coverage rate) = (value of exports / value of imports) x100 Depending on the value of Syrian exports and imports, the coverage ratio of exports to imports was calculated and presented in Table (1), and where we find that it reached the highest coverage value in 2011 at 52.3%, and the coverage ratio decreased to 38.2% in 2019, which means whenever we import 100 Syrian pounds, We will export an amount of 38.2 SYP, bearing in mind that the average coverage rate declined significantly during the war years, reaching an average rate of 24.4%, and this indicates that Syrian merchandise exports will in the future be unable to cover imports, and this explains the chronic deficit in the Syrian trade balance.

The reasons for the increase in the deficit in the period 2011 and thereafter are due to the negative effects of the war on Syria and the weak ability of the country to provide a surplus of goods that can be exported to the outside world due to the weakness of the productive apparatus and the low degree of its flexibility in a way that makes local production limited to limited commodities, which are mostly agricultural commodities with low added value, in addition to unilateral external sanctions on the Syrian economy. The suspension of oil exports and the shift towards importing oil derivatives during the period 2012-2017 had the greatest impact on increasing the trade balance deficit.

4.6. Syrian foreign trade structure:

Syrian foreign trade suffers from a clear structural imbalance due to the high degree of concentration on both sides of imports and exports according to the use of materials (consumable, intermediate, investment), and this is revealed by the statistical data of Syrian foreign trade.

During the period of the research study (2011-2017), on the part of exports, the average consumer exports during the period amounted to 53.2% (it has consistently improved since 2011 and the highest percentage amounted to 77.4% in 2016), while the average intermediate exports during the period amounted to 45.3% (its value kept dropping from 65% in 2011 and reached the lowest level of 21.6% in 2016), while capital exports did not exceed 1.5% as the average of the study period, which is a very low percentage. The following table shows:

	con	sumable	inte	rmediate	investment	
exports	value	Ratio to total exports	Value	Ratio to total exports	value	Ratio to total exports
2011	171551	34	328007	65	5549	1
2012	87581	44.6	102331	52	6540	3.3
2013	78215	44.7	90740	51.9	5978	3.4
2014	85010	48.4	87723	50	3062	1.6
2015	108682	51.7	98323	46.8	3060	1.4
2016	254401	77.4	71037	21.6	3081	0.9
2017	231733	66	116718	33.2	2567	0.7
2018	560676	53.5	485272	46.3	1714	0.16
2019	668070	58.7	469218	41.2	1602	0.14
average	249546.56	53.2	205485.4	45.3	3683.67	1.4

 Table (2): Exports structure (value in million SYP)

Source: National Statistic Office, 2020.

*The values in this table are in current prices and in Syrian pounds based on the official price of the foreign currency, and the percentage is of the researcher preparation.

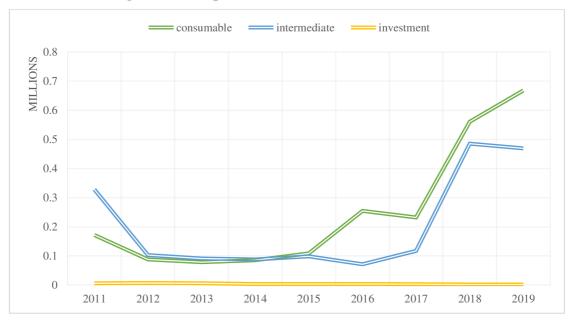


Figure (10): Exports structure (value in million SYP)

Source: Own elaboration, National Statistical Office

Imports represent the second part of the components of foreign trade and are more reflective of the strength of the national economy than exports because they reflect the extent to which this economy depends on foreign markets, and then the ability of this economy to face external challenges as it is one of the most important tools of development, because it is the main means of obtaining the ingredients The main source of development, as by importing various production goods that are not available locally, as well as consumer goods that are not produced locally, are obtained.

As per the Syrian statistics according to the use of materials, the average import of consumer goods amounted to 4.12% during the study period, while the imports of intermediate goods controlled 69% of the total imports, while the imports of capital goods did not exceed 9.18% of the total imports during the study period.

Generally, since 2012, imports of capital goods did not exceed 10% due to the decline in investment spending during the war years, compared to the increase in the import of consumer goods during the period 2011 and 2014 in order to meet the basic needs of citizens, as clarifies the following table:

	consumable		inte	rmediate	investment	
Imports	value	Ratio to total imports	Value	Ratio to total imports	value	Ratio to total imports
2011	118826	12.3	643560	66.7	202542	21
2012	103221	13	616627	77.7	74429	9.3
2013	137534	14.5	760794	80.5	46598	4.9
2014	275246	17.6	1147439	73.4	140161	9
2015	186312	12.4	1184231	79	126797	8.5
2016	245504	11	1780366	79.5	212603	9.5
2017	266690	8.8	2481719	82.1	271513	9
2018	297748	9.9	2380822	79.2	329199	10.9
2019	334451	11.2	2209218	74.1	439000	14.7
average	218392.4	12.3	1467197.	76.9	204760.2	10.76

Table (3): imports structure (value in million SYP)

Source: National Statistical Office, 2020.

* The values in this table are in current prices and in Syrian pounds based on the official price of the foreign currency, and the percentage prepared by the researcher.

By presenting the values and percentage of Syrian exports and imports according to the use of materials (consumable, intermediate, capital), we note the existence of a structural defect in the audio structure of exports and imports, which indicates the rejection of the first existing null hypothesis "there is no structural defect in Syrian foreign trade."

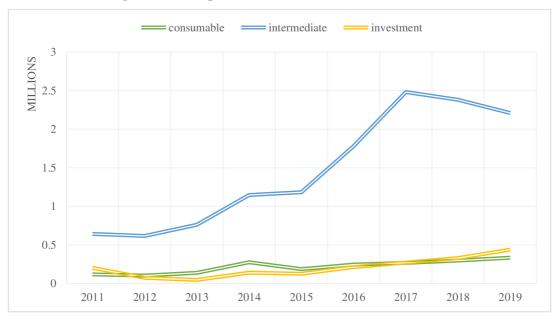


Figure (11): import structure (value in million SYP)

Source: Own elaboration, National Statistical Office

4.7. The degree of openness of trade index:

This indicator expresses the extent of the importance of foreign trade in the gross domestic product, and it is also called the degree of economic exposure as an expression of the extent of the country's economic openness to the outside world. exposure according to the following equation: The indicator of the degree of trade openness = (value of exports + value of imports)/value of GDP $\times 100$

The rise in this indicator in some countries (Britain - Germany) does not necessarily indicate that these countries' economies are dependent on external influences, but it does indicate that their economies are more easily exposed to external influences, as the value of the indicator of trade openness increased, indicating an increase in the local economy's exposure to the global economy. This is especially true for emerging nations that rely on the raw export of only a few commodities. As a result, the growth in this indicator shows how dependent these nations' economies are on the outside world and how quickly they are impacted by variations in their export markets. And thus, serves as a conduit for the transmission of global economic crises and imbalances. As closure is not useful even if the country avoids the transmission of the global economic turmoil to it, nor is excessive openness useful, exposing the country to more economic shocks that occur at the global level. The following table shows the degree of openness of the Syrian economy to the world:

year	Exports + imports	GDP	Trade Openness Index %
2011	1470035	3252720	45.19
2012	990729	3024842	32.75
2013	1119895	2937561	38.12
2014	1738605	3612015	48.13
2015	1707405	4732656	36.08
2016	2566991	6117033	41.96
2017	3370940	8317173	40.53
2018	4055431	9588167	42.3
2019	4121559	11904318	43.62

Table (4) The degree of Syrian trade openness to the outside world during the period2011-2019 (value in million SYP)

Source: National statistical office, 2020.

The values in this table are in current prices and in Syrian pounds based on the official foreign exchange rate.

* Trade openness indicator prepared by the researcher based on the data of the Syrian statistical group.

Depending on the values of exports and imports mentioned in Tables 1 and 2, Table No. (5) data shows that the average degree of trade openness to the outside is about 40.96%, as an average rate during the period 2011-2017 due to the impact of the repercussions of the war and the relative isolation of the Syrian economy from the course of the global economy. Where it is necessary to work to increase the value of the trade openness index by increasing both exports and imports, as the continuous demand for exports is positively reflected on the rate of economic growth expressed by Albert Hirschman with growth stimulated by exports (growth propelled export) or by real imports through import intermediate goods

and investment directed towards moving the production mechanism.

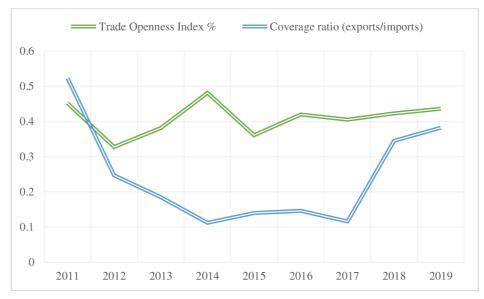


Figure (12): Syria's trade openness index and coverage ratio

Source: Own elaboration and own calculation, National Statistical Office

4.8. The causal relationship between foreign trade and economic growth:

There are many mechanisms through which foreign trade and economic growth are mutually influenced. Increasing exports would increase GDP growth as well as reduce imports. The growth of export-oriented industries would increase job opportunities and increase wages and thus increase output growth due to increased incomes, in addition to the increase in value The addition to the export-oriented industrial sector would increase output growth due to the increase in value added. In addition to these indirect effects due to the effects on productivity and the reallocation of resources more efficiently and other indirect mechanisms, many studies have examined the relationship between growth and foreign trade.

Fisher referred to the relationship between the import substitution policy (dispensing with what was previously imported through local production) and the positive impact on growth, as well as the positive impact of the policy of encouraging exports on growth, as most studies have shown from Fisher's point of view that the greater the degree of openness, the more it is strengthened the growth and income, as countries that are economically open grow 2% more than those that are closed.

To determine the nature of the causal relationship between foreign trade and GDP, it is necessary to download the previous data contained in Tables (1) and (2) and study them in order to answer the hypothesis: "There is no causal relationship between total foreign trade and GDP." Relying on

those data, we get figure (13), and we notice from the graph that the two-indicator series have a common movement during the studied period, which leads us to study the long-term equilibrium relationship between these two indicators.

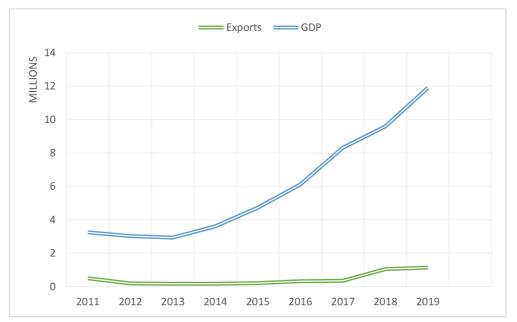


Figure (13): Relationship between Syria's exports and GDP (value in million SYP)

Source: Own elaboration, National Statistical Office

4.9. Linear regression model:

For search, determination, and empirical verification, the econometric analysis combines econometric theory, mathematics, statistics, and information technology. The econometric analysis approach is based on a multistep abstraction based on the qualitative analysis theory of the investigated economic topic. Specification, quantification, verification, and application are the four steps of the process. To model the relationships between variables, linear regression is used. For this purpose, the Gretl computer software is used, as it provides advanced data analysis features. The time series is interpreted using annual data, with 9 observations from 2011 to 2019.

4.9.1 Construction of the economic model:

The Syrian export economic model was developed using economic theories and economic theory components of economic reality. The economic model that was employed in this thesis is shown in the following formula.

y_1 t = $f(x_{0t}, x_{1t}, x_{2t}, x_{3t})$

Where:

y: dependent/ explained/endogenous/ variable

 x_{1-k} : independent/ explanatory/exogenous/ variables

* The link between Syria's exports and Saudi Arabia's GDP is being investigated, given that Saudi Arabia was Syria's largest export partner in 2019.

The economic model's main assumption is that Syrian export is an endogenous variable that is influenced by exogenous variables. According to economic theory, the relationships between variables are assumed to be as follows:

- Increase in Saudi Arabia's GDP will lead to an increase in exports (positive correlation)
- Increase in inflation will lead to a decrease in exports (negative correlation)
- Depreciation in the SYP will lead to an increase in exports

4.9.2 Construction of econometric model:

The econometric model differs from the economic model in three ways. A stochastic variable, parameters, and a specified functional form are all included in the econometric model. The econometric model can be mathematically expressed as follows:

$$\beta_{1t} y_{1t} = \gamma_{10} x_{0t} + \gamma_{11} x_{1t} + \gamma_{12} x_{2t} + \gamma_{13} x_{3t} + u_{1t}$$

Where:

 β_{1t} : parameter of the dependent variables (exports)

 y_{1t} : the dependent quantitative variable representing Syria's exports, unit is million SYP.

 x_{0t} : intercept term

 x_{1t} : the independent quantitative variable representing Saudi Arabia GDP, unit is million SYP.

 x_{2t} : the independent quantitative variable representing inflation.

 x_{3t} : the independent quantitative variable representing exchange rate.

 γ_1 : parameters of the independent variables (Saudi Arabia GDP, inflation, exchange rate)

 u_{1t} : stochastic term

4.9.3 Data set:

A one-equation econometric model with one endogenous (y_{1t}) , four exogenous $(x_{0t} - x_{1t} - x_{2t} - x_{3t})$, and one stochastic (random component u_{1t}) variables is used to create econometric models. Table 4 displays the data obtained for parameter estimate from 2011 to 2019. The following equation expresses the shape of a one-equation econometric model:

$$\beta_{1t} y_{1t} = \gamma_{10} x_{0t} + \gamma_{11} x_{1t} + \gamma_{12} x_{2t} + \gamma_{13} x_{3t} + u_{1t}$$

Year	Exports (million SYP)	Saudi Arabia GDP (million SYP)	Inflation* (100 as base)	Exchange rates (1 USD to SYP)
	Y	x_1	x_2	<i>x</i> ₃
2011	505107	32387385	106.7	47
2012	196452	57799014	145.4	55
2013	174933	59174690	264.1	77
2014	175759	110616246	324.2	141
2015	210065	185092945	448.8	180
2016	328519	307150516	662.9	312
2017	351018	339042597	782.2	497
2018	1047662	343021849	790.1	434
2019	1138890	345832703	896.2	535

Table (5): Data set for econometric modelling

Source: National Statistical Office, https://www.statista.com/

*The consumer price index is used to calculate inflation.

4.9.4 Summary Statistics

To illustrate statistics summar, the table below comprises previously actualized descriptive data such as mean, median, minimal, maximal value, and standard deviation of variables in the present form of the model

	Y	x_1	x_2	x_3
Mean	458700	197800000	491.2	253.1
Median	328500	185100000	448.8	180.0
Minimum	174900	32390000	106.7	47.00
Maximum	1139000	345800000	896.2	535.0
Standard Deviation	376100	136400000	299.2	195.5

Table (6): Summary Statistics

Source: Own calculation and elaboration using Gretl Software

It is observed that the average exports in Syria are 458700 million SYP per year, according to the statistical data summary. The variable Y also has a middle value of 328500 million SYP, a minimum value of 174900, and a high value of 1139000 million SYP. The square root of variance equals the standard deviation. The value of exports is 37611 million SYP every year, which illustrates how far our values differ from the norm.

The same interpretation concept may be applied to the remaining variables (x_1, x_2, x_3) .

4.9.5 Multicollinearity and correlation matrix:

The correlation matrix is used to check the existence of multicollinearity between the exogenous variables. The presence of multicollinearity should be checked before continuing with the econometric analysis of the model, for which the correlation matrix is constructed. It depicts the interdependence of exogenous variables. When the range of correlation coefficients is equal to or greater than [0.85] absolute value, multicollinearity occurs.

Table (7): Correlation Coefficients, using the observations 2011 - 2019
5% critical value (two-tailed) = 0.6664 for n = 9

	y1t	X _{1t}	X _{2t}	X _{3t}
y1t	1.0000			
X _{1t}	0.6165	1.0000		
X _{2t}	0.6587	0.9857	1.0000	
X _{3t}	0.6913	0.9648	0.9806	1.0000

Source: Gretl SW.

Based on the Gretl output, we can see that several pairwise correlation coefficients are greater than 0.8 cases, meaning the following exogenous variables are highly dependent on each other:

- Saudi Arabia GDP (x_{1t}) and Inflation (x_{2t}) are highly dependent on each other
- Exchange rate (x_{3t}) , Saudi Arabia GDP (x_{1t}) , and Inflation (x_{2t}) are highly dependent on each other

There are various alternative ways to model modification that might be used to overcome the problem of multicollinearity. One of the possible options is to leave one of the variables out of the model, however this is not a recommended approach. Another method of correcting multicollinearity is to convert data using the first or relative difference. Other options include using a dummy variable, extending the time series, or simply ignoring the multicollinearity. This may result in more inaccuracy due to insignificance of the parameters, but it is not a bad technique.

To eliminate the multicollinearity between the exogenous variables, and to be able to proceed with the analyzing of the variables, we will continue the analyzation with the first differences of the Inflation and Exchange Rate variables:

- 1st difference of the variable inflation $(x_{2t}) \rightarrow dx_{2t}$
- 1st difference of the variable exchange rate $(x_{3t}) \rightarrow dx_{3t}$

The new correlation matrix for the adjusted exogenous variables is as follows:

Table (8): Correlation Coefficients of adjusted variables, using the observations 2012 - 2019
5% critical value (two-tailed) = 0.7067 for $n = 8$

	y1t	X _{1t}	dx _{2t}	dx _{3t}
y1t	1.0000			
x _{1t}	0.7165	1.0000		
dx _{2t}	-0.2866	0.2098	1.0000	
dx _{3t}	-0.1779	0.3688	0.6961	1.0000

Source: Gretl SW.

We can validate that our model does not have a significant degree of multicollinearity because all parameters within the interval [-0.8,0.8], none of the pairwise correlation coefficients are larger than 0.8. This means that none of the adjusted exogenous variables are strongly dependent on each other.

In the incurred data set, there is a decrease in the number of time-series observations. There is a loss of the base year 2011 since the multicollinearity was addressed via relative differences, which are determined as the current year divided by the preceding year. As a result, the original data set now consists of 8 observations spanning the years 2012 to 2019.

year	Exports (million SYP)	Saudi Arabia GDP (million SYP)	Inflation (%)	Exchange rates (USD to SYP)
	Y	x_1	dx_2	dx_3
2011	505107	32387385	-	-
2012	196452	57799014	38.7	8
2013	174933	59174690	118.7	22
2014	175759	110616246	60.1	64
2015	210065	185092945	124.6	39
2016	328519	307150516	214.1	132
2017	351018	339042597	119.3	185
2018	1047662	343021849	7.9	-63
2019	1138890	345832703	106.1	101

Table (9): Data set after Multicollinearity elimination

Source: Gretl SW, National Statistical Office, 2020.

4.9.6 Parameters' Estimation (using OLSM in Gretl SW)

The parameters were processed and calculated using the tools Gretl and Excel, with a significance threshold of 0.05 for econometric modelling. The Ordinary least square approach was used to investigate the association between chosen variables. The essence of the Ordinary Least Square approach is to use the formula to discover parameters that minimize the sum of squared residual errors.

$$\gamma = (X T * X)^{-1} * X T * Y$$

	Coefficient	Std. Error	t-ratio	p-value	
const	104893	237475	0.4417	0.6815	
X1	0.00275979	0.000803358	3.435	0.0264	**
d_X2	-1484.21	2128.11	-0.6974	0.5239	
d_X3	-1777.51	1829.63	-0.9715	0.3863	

Table (10): estimation of parameters Model 1: OLS, using observations 2012-2019 (T = 8) Dependent variable: Y

Source: Gretl SW

At this point, the computed variables coefficients may be incorporated in the econometric model. As a result, the final one-equation econometric model may be written as follows:

$$y_{1t} = x_{0t} + \gamma_{11}x_{1t} + \gamma_{12}dx_{2t} + \gamma_{13}dx_{3t} + u_{1t}$$
$$y_{1t} = 104893 + 0.00275979x_{1}t - 1484.21dx_{2}t - 1777.51dx_{3}t + u_{1}t$$

4.9.7 Model Verification:

The model verification process is divided into four major parts. That is, there is mathematical verification, statistical verification, economic verification, and finally, econometric verification as the final step in the verification process.

The final framework of the model, which will be further tested in this chapter and utilized for application of the model in the next one, has already been released for parameter estimation. As previously said, the procedure of how this model was deduced will be discussed and explained in subchapters of statistical and economic model verification.

Mathematical Verification:

Mathematical verification is the initial and easiest stage in all future verifications. The average values of each factor are placed into the equation. As a result of mathematical evidence, the left side of the equation should equal the right side. The value of the term error is zero. The application Gretl does this verification automatically, thus it won't be covered in the next chapters.

Statistical Verification:

The importance of evaluated parameters and a model as a whole is investigated via statistical verification. The t-test and the F-test are used to examine the statistical significance of the estimates at the level of significance, and the p-values are compared to the significance level. In the case of model verification, the coefficients of determination are assessed.

We employ statistical tests to examine if the estimated parameters are statistically significant and to assess the goodness of fit in the statistical verification.

The t-test is performed for each parameter to see if the explanatory variables have an effect on the explained variable. Individual parameter statistical verification may be accomplished by comparing the derived t-value to a table value, commonly known as t-tab. The null hypothesis is rejected if the t-value is larger than t-tab, indicating that the parameter is significant, according to the following criteria:

t-val > t-tab \rightarrow reject H0

Only one of the included parameters in Gretl software is statistically significant, as can be seen. The statistically significant variable The Saudi Arabia GDP variable x_1 , of statistical significance 0.5 is demonstrated by two stars (**) as shown in Table ().

Dependent variable: Y					
Mean dependent var	452912.3	S.D. dependent var	401600.7		
Sum squared resid	2.62e+11	S.E. of regression	255956.0		
R-squared	0.767885	Adjusted R-squared	0.593798		
F(3, 4)	4.410938	P-value(F)	0.092828		
Log-likelihood	-108.2010	Akaike criterion	224.4020		
Schwarz criterion	224.7198	Hannan-Quinn	222.2588		
rho	0.012646	Durbin-Watson	1.329192		

Table (11): Statistical verification of the model Model 1: OLS, using observations 2012-2019 (T = 8) Dependent variable: V

Source: Gretl SW

Coefficient of Determination R²:

$R^2 = 76.79\%$

The R2 determination coefficient is a metric that indicates how well the data fits the regression line. According to Gretl software output, R2 for the diploma thesis one equation model is

0.767885. Exogenous factors account for 76.79 percent of variations in the endogenous variable, which is excellent.

Adjusted R² = 59.38%

According to the adjusted R-squared value of 0.593798, is the same as R2, but it takes into account the amount of data in the model. indicating that independent variables explain 59.38 percent of the model when compared to the number of variables.

Economic Verification:

Economic verification evaluates the direction and magnitude of exogenous variables' influence on endogenous variables. It also assesses if the calculated parameters are consistent with economic theory under the same condition:

- 104893 is related to the constant of the model, it represents an initial level of exports, so if all other exogenous factors (Saudi Arabia GDP, inflation, and exchange rates) are set to zero, the total volume of Syrian exports grows by 104893 million SYP.
- 2) 0.00275979 is related to γ₁₁ If Saudi Arabia's GDP rises by one million SYP, the value of Syrian exports rises by 0.00275979 million SYP, ceteris paribus.
 This certifies the economic theory that increase in Saudi Arabia's GDP will cause an increase in exports. The estimated parameter is significant at 0.05 level of significance.
- 3) 1484.21 is related to γ₁₂ If inflation rates rise by 1%, the value of Syrian exports drops by 1484.21 million SYP, ceteris paribus.
 This certifies the economic theory that increase in inflation rates will cause a decrease in

exports. The estimated parameter is insignificant at 0.05 level of significance

4) 1777.51 is related to γ₁₃ If the Syrian Pound exchange rate depreciates by 1 SYP, the value of Syrian exports will decrease by 1777.51 million SYP, ceteris paribus.
This does not certify the economic theory that depreciation of in the country's currency will cause an increase in exports. The estimated parameter is insignificant at 0.05 level of significance.

The parameter of exchange rate γ_{13} assumption is not consistent with the economic theory, meaning that not all variables are economically relevant.

As a result, the economic verification revealed that the model is fairly efficient.

Econometric Verification:

Econometric verification is used to use an econometric model and see if it fits the assumptions of a linear regression model. For econometric verification, autocorrelation, normality of residuals, and heteroscedasticity tests are used.

Autocorrelation:

The Durbin Watson and Breusch-Godfrey tests are used to assess the correlation of the errors; the first is for autocorrelation first-order residues, while the second is for higher order autocorrelation. The Durbin-Watson (DW) test is used to examine the autocorrelation of the first order. The interval is <0;4>, with a 5% significance level. Table values are obtained based on degrees of freedom and number of variables. DW has a value of 1.32919 and a p-value of 0.092828. The Durbin-Watson is between 0 and 2 which leads to the conclusion that there is a strong positive autocorrelation in the model. The p-value is also statistically different from zero which suggests the presence of autocorrelation in the model.

The Breusch-Godfrey test was used to confirm the autocorrelation of second-order residuals. According to the test, as shown in Picture (), there is no signification autocorrelation present in the mode, as validated by Gretl software; if there was, there would be an indication of significance next to the last variable in the shape of stars, and since there are none, the autocorrelation is insignificant.

SA	1.2			
gretl: autoc	orrelation			- u
14 R (Q.			
eusch-Go	dfrev test for firs	t-order autocorre	lation	
	observations 2012-			
	variable: uhat	(/		
-				
	coefficient	std. error	t-ratio	p-value
const	-13351.8	450490	-0.02964	0.9782
X1	7.76165e-05	0.00227559	0.03411	0.9749
d X2	77.5792	3217.09	0.02411	0.9823
d X3	-91.7162	3238.96	-0.02832	0.9792
uhat 1	0.108814	2.91328	0.03735	0.9726
Unadjust	ed R-squared = 0.00	0465		
	stic: LMF = 0.00139	- /		
with p-val	ue = P(F(1,3) > 0.0)	013951) = 0.973		
ltownstin	e statistic: TR^2 =	0.002710		
	ue = P(Chi-square(1	,	0 051	
atti p-var	ue - r(chi-square(i	/ / 0.003/1033/ -	0.551	
jung-Box	Q' = 0.00020854			
	ue = P(Chi-square(1) > 0.00020854) =	0.988	
		,		

Picture (7): test of autocorrelation

Source: Gretl SW

Heteroscedasticity:

Homoscedastic residuals have the same limited variance. If not, we have a heteroscedasticity problem. The cause for this might be that an unimportant variable was included in the model, or that cross-sectional data or data categorization was used. The same consequences apply as in the case of autocorrelation. As a result, we employed the Breusch-Pagan test to determine heteroscedasticity. First, the assumptions are expressed as follows:

H0: There is no heteroscedasticity in the model. (p-val $> \alpha$ level)

H1: There is heteroscedasticity in the model. (p-val $\leq \alpha$ level)

gretl: LM test (heteroskedasticity)				- 🗆	\times	
🛛 占 🕞 (۵				6	
Breusch-Pagan test for heteroskedasticity OLS, using observations 2012-2019 (T = 8) Dependent variable: scaled uhat^2						
	coefficient	std. error		-		
	-0.115633					
X1	5.60497e-09	6.37155e-09	0.8797	0.4287		
d X2	-0.00465228	0.0168783	-0.2756	0.7965		
d_X3	0.00574193	0.0145111	0.3957	0.7125		
Explaine	d sum of squares	= 5.47306				
	stic: LM = 2.736 ue = P(Chi-square	•	2) = 0.4340	55		

Picture (8): test of heteroskedasticity

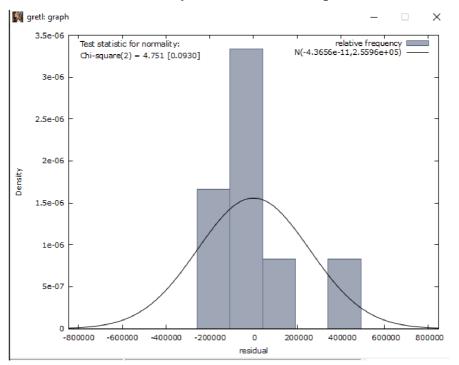
Source: Gretl SW

The Breusch- Pagan test yields a p-value of 0.434055, since our p-value is greater than 0.05, we fail to reject the null hypothesis and conclude that there is no heteroskedasticity in the model.

Normality Test of Residuals

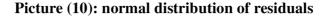
This test's main purpose is to check if the residuals are dispersed evenly. The normal distribution of residuals was investigated using the Jarque-Bera test. Hypotheses were created, and the null hypothesis was accepted or rejected based on the results of the tests.

H0: normal distribution of residuals. (p-val > α level) H1: no normal distribution of residuals. (p-val < α level)



Picture (9): normality of residuals – one-equation model

Source: Gretl SW



```
🌉 gretl: residual dist.
                                                                       Х
                                                                  6
🔏 占 🕞 🔍
Frequency distribution for residual, obs 2-9
number of bins = 5, mean = -4.36557e-011, sd = 255956
      interval
                     midpt frequency rel.
                                               cum.
25.00% 25.00% ********
                                                 75.00% *****************
                                          50.00%
                                          12.50%
                                                  87.50% ****
                                          0.00% 87.50%
                                          12.50% 100.00% ****
Test for null hypothesis of normal distribution:
Chi-square(2) = 4.751 with p-value 0.09299
```

Source: Gretl SW

In terms of the Jarque-Bera test for normality, the test statistic of 4.751 has a p-value of 0.09299, implying that the null hypothesis is not rejected since 0.09299 is greater than α =0.05, implying that the residuals have a normal distribution (random variable). Other tests for normality also show that the residuals have a normal distribution. The typical distribution of residuals may be seen in picture 6 as well.

4.9.8 Model Application:

To make each exogenous variable comparable, the intensity of exogenous factors on the endogenous variable must be expressed as elasticity. Exogenous factors have a certain amount of impact on endogenous variables, as seen in the table. The advantage of the power function is that it eliminates the need to calculate elasticities because individual parameters (exponents) reflect them. For the application of the model, the coefficients of elasticity are going to be used. So, by checking the change of the dependent variable (Syrian exports) if the explanatory variable (Saudi Arabia GDP) increases by 1%.

$$y_i = f(x_i, x_j, x_{in})$$

For calculation of the elasticities, the last period 2019 is selected.

The model equation will be used by substituting the independent variables based on the type of elasticity as the following:

$$\beta_{1t}y_{1t} = 104893 + 0.00275979x_{1t} - 1484.21dx_{2t} - 1777.51dx_{3t} + u_{1t}$$

It shows the relationship of Saudi Arabian GDP and its related exports, so by substituting the value of the related variable in the last year in all Xs in the model to find $\overline{y}i$

Theoretical Yi for 2019

$$\bar{y}_i$$
=104893+0.00275979 (345832703)- 1484.21 (106.1)- 1777.51 (101)
 \bar{y}_i = 722315.4

Export partner GDP elasticity (indirect):

$$e_{ii} = \frac{\partial y}{\partial x_1} \times \frac{x_1}{\dot{y}_i}$$
$$e_{ii} = 0.00275979 \times \frac{345832703}{722315.4} = 1.321341945$$

If the value of the Saudi Arabian GDP increases by 1% in 2019, the Syrian exports increases by 1.32%

Inflation elasticity (direct):

$$e_{ii} = \frac{\partial y_i}{\partial x_2} \times \frac{x_2}{\bar{y}_i}$$
$$e_{ii} = -1484.21 \times \frac{106.1}{722315.4} = -0.218013739$$

If the value of inflation increases by 1% in 2019, the Syrian exports will decrease by 0.22%

Exchange rate elasticity (direct):

$$e_{ii} = \frac{\partial y_i}{\partial x_3} \times \frac{x_3}{\bar{y}_i}$$
$$e_{ii} = -1777.51 \times \frac{101}{722315.4} = -0.248545871$$

If the value of SYP depreciates by 1% in 2019, the Syrian exports will decrease by 0.25%

The highest impact observed among the factors affecting exports in Syria has to do with the Saudi Arabia GDP as its elasticity coefficient is the highest amongst all factors involved in the model for the time period of 2019.

5. Recommendations:

- 1. Enhancing the competitiveness of the Syrian economy and striving to convert our traditional exports to finished manufactured products with high added value through a gradual shift in the export structure moving from exports based on the use of natural resources to medium technology and finally to high-tech exports.
- 2. The necessity of achieving economic development and raising economic growth rates by supporting and encouraging an increase in production beyond the direct needs of the population, so that it is possible to increase the volume of exchange with the outside world, given the limited production that hardly meets local needs, it is impossible to increase the volume of trade exchange.
- 3. Expanding the local and regional market available for Syrian products through developing export support and financing programs and facilitating the access of Syrian products to the markets of Syria's trading partners, especially the countries with which Syria has economic relations and solid politics.
- 4. Adopting the principle of periodic review of economic policies, especially trade policies, to avoid gaps that may occur in the economy during application.
- 5. Working on developing transportation networks of all kinds, especially maritime transport, in order to optimize the comparative advantage of Syria's location, linking production sites with export sites with an advanced network of road and railways, developing ports by expanding them, increasing storage areas, and developing loading and unloading equipment.
- 6. Working to reduce the commodity and geographical concentration of Syrian exports by diversifying these exports and diversifying foreign markets.
- 7. Continuing to support and encourage export work by providing exemptions facilities, and the establishment of a bank to finance exports.
- Follow up on economic reforms in line with the steps of Syria's accession to the European Partnership Agreement and the World Trade Organization.

6. Results and Discussions:

- The study demonstrated the significant impact of the factors affecting the establishment and development of foreign trade, and this was evident through the impact of the location on the geographical concentration of Syrian foreign trade in exports and imports with geographically close countries and regions, especially Arab countries and neighbouring countries.
- The study showed that the highest value of coverage of exports for resources was in 2018, and the coverage ratio decreased to 38.2% in 2019. It was also found that the average coverage ratio during the years of stability was 6.94%, but it declined significantly during the war years, as it amounted to an average rate of 24.4% This indicates that Syrian audio exports will in the future be unable to cover audio imports.
- The study proved the existence of a clear defect in the structure of Syrian foreign trade, where the analysis of the commodity composition index reflected the strong concentration in both exports and imports, as the proportion of raw materials in exports increases, and the proportion of manufactured and semi-manufactured goods in imports rises significantly.
- The study showed a structural imbalance in the composition of Syrian exports and imports according to the use of materials, where the average consumption exports during the study period amounted to about 53.2%, while the intermediate exports amounted to 45.3% as an average for the period, while capital exports did not exceed 2%. As for the imports side, they amounted to an average of 12.3% imports of consumption goods, which is a very low percentage of consumption, and average imports of intermediate goods which exceeded 76.9%, while imports of capital goods, as an average, did not exceed 10.8%.
- The average degree of trade openness to the outside ranged between 40%-41% as an average during the period 2011-2019 (the impact of the repercussions of the war and the relative isolation of the Syrian economy from the course of the global economy).
- The study concluded that there is a one-way causal relationship between the total foreign trade and the gross domestic product, which means that foreign trade is affected by any change that occurs in the domestic product.
- The study conducted a positive relationship between the Syrian exports and its biggest exporting partner of 2019's GDP, and a negative relationship between the exports and the inflation rates and exchange rates.

7. Conclusion:

Foreign trade is of great economic importance for its direct role in supporting the economic growth of both developing and developed countries, so countries are usually concerned with evaluating trade performance indicators, in order to assess its impact on economic growth and try to remove obstacles to international trade and rely on trade models that are consistent with the ingredients. To be able to set national trade policies that comply with and serve the key components of this trade, and to improve the nation's development and standard of living, it is critical to understand all of the characteristics, advantages, disadvantages, risks, and everything else that concerns foreign trade.

Syria's location gives it a useful feature since it is located in the ancient world's geographic center, in the midst of the continents, and so acts as a bridge and a corridor for old world transportation routes. Syria has been a focal point for international civilized interactions from the dawn of mankind. Syria's geographical location has made it easier for it to communicate with the rest of the globe. Syria has always been known for its economic position, which has allowed it to play a significant role in world commerce. It serves as a connecting point between Asia, Europe, and Africa. Syria, as a developing country in the middle of a crisis, urgently needs to boost its exports and trade links with other nations to satisfy the needs and desires of its inhabitants. Because the fighting has depleted much of the nation's natural resources and energy reserves, the country can no longer fulfil its own demands and must export more goods than it produces, increasing the country's trade deficit and weakening its trade capabilities.

In the practical section, the researcher looked at how dependent Syrian exports are on other factors. Saudi Arabia's GDP was one of the factors; this determinant was picked over others since Saudi Arabia had Syria's biggest percentage of exports in 2019. The other determinants were inflation rates and exchange rates of Syria, these factors were chosen in the analysis based on economic theories that explain the existence of a direct relationship between exports and inflation, and exports and exchange rates.

The research discovered a flaw in the econometric model involving the export determinant and the exchange rate determinant, which looked to have a negative connection. Other factors that impact these two determinants that are not included in the mode, such as EU and US trade sanctions on Syria, might justify this mistake.

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