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ISTANBUL GELISIM UNIVERSITY
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Department of Economics and Finance

**THE IMPACT OF TERMS OF TRADE ON THE
ECONOMIC GROWTH: CASE STUDY IRAQ FROM**

1990-2019

Master Thesis

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Supervisor

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

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SUMMARY

The purpose of this thesis is to investigate the effects of terms of trade (TOT) on Iraqi economic growth (GDP) considering capital stock and labor force. Data from the World Bank and Iraqi government statistics were used to create a time series from 1990 to 2019. To investigate the interrelationship among the variables, the ARDL model has been chosen in this study because it can be applied on models where variables included in the equations are stationary at different levels.

The empirical findings of the study demonstrate that labor and capital have a beneficial impact on economic growth both in the short and long run. The findings also reveal that TOT has statistically significant, negative long- and short-terms effects on Iraqi economic growth. The negative effect of TOT can be explained by the fact that the import price of products is generally greater than the export price, or that the rate of increase in the import price is generally higher than the rate of growth in the export price.

Keywords: Economy, border crossings, economic development, planning, neighboring countries, food security, economic policy, national income, domestic product.

ÖZET

Bu tezin amacı, dış ticaret haddinin (terms of trade – ToT) Irak ekonomik büyümesi (GSYİH) üzerindeki etkilerini sermaye stoku ve işgücü dikkate alınarak araştırmaktır. 1990'dan 2019'a kadar mevcut zaman serisi oluşturmak için Dünya Bankası ve Irak hükümeti istatistiklerinden elde edilen veriler kullanılmıştır. Değişkenler arasındaki karşılıklı ilişkiyi araştırmak için denklemlere dahil edilen değişkenlerin farklı düzeylerde durağan olduğu modellere uygulanabilmesi nedeniyle bu çalışmada ARDL modeli seçilmiştir.

Çalışmanın ampirik bulguları, emek ve sermayenin hem kısa hem de uzun vade de ekonomik büyüme üzerinde olumlu bir etkiye sahip olduğunu göstermektedir. Bulgular ayrıca ToT'un Irak'ın ekonomik büyümesi üzerinde istatistiksel olarak anlamlı, uzun ve kısa vadeli negatif etkileri olduğunu ortaya koymaktadır. ToT'un olumsuz etkisi, ürünlerin ithalat fiyatının genellikle ihracat fiyatından daha yüksek olması veya ithalat fiyatındaki artış oranının genellikle ihracat fiyatındaki büyüme oranından daha yüksek olması ile açıklanabilir.

Anahtar Kelimeler: Ekonomi, sınır geçişleri, ekonomik kalkınma, planlama, komşu ülkeler, gıda güvenliği, ekonomi politikası, milli gelir, yerli hasıla.

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INTRODUCTION

Technological progress and globalization are two main factors that have driven the last two decades. Interdependence among countries and international trade has helped in the growth of many countries' incomes while also widening the gap between developed and developing countries. One of the most important revolutions in international trade was David Ricardo's principle of comparative advantage, which revealed the enormous effect that international trade would have on economic development. To reap the benefits of international trade, a country simply needs to specialize in the manufacture and sale of products in which it is more competitive (Carbaugh, 2013: 214).

Today, import and export specialization has taken an intriguing turn: industrialized countries specialize in and export mostly services and consumer goods, while emerging countries specialize in and export primary commodities. Services and consumer goods have different economic effects because their relative prices are more constant, resulting in a more stable rise in exports and, as a result, a higher and more consistent economic growth. The relative price of primary goods, on the other hand, is more unpredictable, resulting in an unstable and lower rate of economic growth. This fact was revealed as part of the 1950 "Prebisch-Singer hypothesis" proposed by Prebisch and Singer. According to this theory, primary-commodity-dependent countries' terms of exchange would deteriorate because primary commodity values appear to fall over time relative to imported product prices (Toye, 2003: 56) .

In this respect, the Harberger- Laursen Metzler (HLM) theory is also well-known. According to the HLM effect, a negative shock to the TOT leads to a decrease in a country's real income and aggregate reserves, resulting in a deterioration of its current account balance (Harberger, 1950: 132).

Immiserizing development is a concept proposed by Bhagwati (1980). Depending on the immiserizing development hypothesis, when a technical revolution or a rise in factor endowments pushes a country's output capability frontier outwards, the primary gain of economic growth is replaced by a secondary disadvantage due to the weakening of the TOT. Bhagwati and Brecher (1980) argue that if capital is internationally mobile, a decline in TOT can increase national income .

Two primary transmission networks are the impact of a natural resource on TOT and the economy's trade openness. Natural resource wealth reduces transparency and has a detrimental impact on terms of trade. Because of the declining manufacturing sector, policymakers may impose import tariffs and quotas in the short terms to protect local producers. These policies reduce the economy's transparency and, in the long terms, obstruct its entry into the international market. Furthermore, domestic profits increased as a result of the natural resource boom, resulting in an overvaluation of the domestic currency. Exports became more costly in the world market because of the overvaluation of the currency. This phenomenon is known as the “Dutch Disease” (Misztal, 2010).

Jawaid and Raza (2013) go on to explain how there is a connection between TOT and economic growth in the following way. Improvements in TOT result in more effective resource distribution. This leads to increased productivity and rapid economic growth. A country's ability to transfer capital for research and development is aided by high economic growth. These research and development programs help to increase the country's quality of life. High export prices are a function of improved quality, meaning that terms of trade will continue to rise. Furthermore, Cheong and Takayama (2016) examined the health and economic effects of the Trans-Pacific Partnership, the world's largest trading partnership pact, and found that the terms of trade effect outweigh the trade impact (Sachs, 1995: 155).

Even terms of trade (TOT) and economic growth are positively related, other studies have discovered a negative link between them. As part of this section, a few studies were discussed. Whatever the case, studying the subject has both rewards and downsides. Policymakers have concluded that the entire economy must adopt export promotion and import substitution policies based on the link between overall terms of trade and economic development in their view because of prior studies (Torvik, 2001: 143).

According to research conducted on Iraq's terms of trade and economic growth, there has never been a study that has examined this link. These findings will help shed light on the impact of trade policy on Iraqi economic growth and the impact of terms of trade TOT on the country's development and economic growth.

CHAPTER ONE

INTERNATIONAL TRADE

1.1. The Concept of International Trade

International trade (imports and exports) is the oldest in history, representing economic ties between different economies, and is an important part of a country's international relations. It's also one of the most important aspects of any civilization, advanced or emerging. By extending consumption, investment, and resource allocation choices, it improves the country's well-being. It also increases marketing capacity by creating new markets for government products (Al-Sawai, 2013: 174). A third benefit is the ability to take advantage of comparative advantages and build businesses with economies of scale in return for more productive foreign labor. As such, the agency administers tariffs, export promotion programmes and trade facilitation policies as well as incentives and quotas in customs and customs administration. Furthermore, it contributes to the poor's ability to escape acute poverty.

The reciprocal exchange of services or products across international territories and borders is known as international trade. Import and export are two different types of import and export. They are essential concepts for the country's economy. These ideas are used to set national objectives. International trade policy refers to the decisions, strategies, and other actions they take to achieve their objectives (Gujarati, 2003: 321).

The oldest and most well-known form of international labor division is commodity and service trade. Businesses get access to new markets, improve their turnover, and create more employment as a result of their trading ties with other nations. This raises private household income, which can be used to buy items manufactured in other countries that aren't as good, are only accessible at a higher price, or aren't available at all in the local market. Finally, having a wider range of products creates wealth and is the foundation of consumer sovereignty. International trade used to be based on the exchange of various items ("machines against bananas").

Inter-industrial commerce is gradually being replaced by intra-industrial trade (Suranovic, 2010: 228).

Every government on the planet has a responsibility to its inhabitants. Goods and services are required to meet the demands. Some resources are required for the growth of services and commodities. However, not every country has the financial means to produce and distribute goods and services. As a result, it has been unable to meet its own production demands. As a result, other departments assist with procurement. This crucial requirement is met by international trade (Krugman, 1986: 113).

To fully realize "What is International Trade," we must first comprehend the concept of trade. Trade is defined as the exchange of one good, service, or money for another good, service, or money. It has a famous and extensive history. The concept of commerce has progressed with the continual growth of the idea of buying, which began with the technique of trade and has evolved to the present day (Suranovic, 2010: 265).

International trade is the transfer of services or revenue generated outside of national borders. The terms "commerce" refers to the buy-and-sell transactions that enable for the delivery of produced goods and services to clients. The concept of international trade is demonstrated by these worldwide purchases and sales. International trade takes the form of import and export when it comes to the delivery of purchase and sell transactions (Al-Sawai, 2013: 83). Simply put, all import and export procedures are included in this concept. Export has a substantial influence on national economic growth, according to Vernon (1966). Governments typically implement policies that increase exports while reducing imports. A lot of countries engage in international commerce. Goods are imported and exported from here. The transactions are centered on customs.

Detailed laws and implementation methods are used to accomplish this. All potential risks should be considered during the transaction. All of these examples are included in international trade. In all economies throughout the globe, whether developed or developing, international commerce plays an essential role. Nature has not bestowed the same productive resources on all countries. Their economies are influenced by climate, natural and geological resources, as well as capital and labor

availability. No country on the planet can be regarded totally self-sufficient due to its various needs and requirements. The terms "international trade" refers to the action of trading beyond national borders (buying and selling) between countries all over the world. Between countries, commodities are exchanged for products. This might be considered a fundamental economic activity or a period of worldwide transition between countries (Trefler, 2010: 177).

The interdependence of countries' economy is demonstrated through these economic ties. International commerce is the most important component of all international economic exchanges. Imports and exports are terms used to describe goods transactions, currency exchanges, and the buying and selling of commodities between countries. Imports are goods manufactured in another country but consumed in a single one. Exports are goods produced in one country and sold to and consumed in another (Trefler, 2010: 219).

From a historical perspective, commerce has always been present since humans first began to interact with one another. People used to try to make whatever they needed, but as civilization advanced, so did their demands, which were met through trade. These trades of commodities for products were referred to as barter. As a result, transactions became simpler, and the usage of a third-party commodity known as money became commonplace. Since then, genuine trade has grown (Al-Sawai, 2006: 122).

Prior to the capitalist era, state-to-state trade was primarily centered on national specialization, which was based on natural circumstances that led to the production of goods utilizing domestic resources. With the rise of capitalism, a new important element emerged: worldwide labor division, which reinforced global nation-state interdependencies and linkages. As a result of the technical and scientific revolutions, which have directly assisted the expansion of production forces, this division of labor has continued to grow and deepen (Jenicek, 2009,94).

According to Gellner, (1998), such a separation of professions in a community deprives individuals of their own security. Galler, on the other hand, thinks Ferguson predicted a threat that never occurred, at least not in the way he predicted (Gellner, 1998: 129). Krugman, (2009) refutes Ferguson's theory in Social Division of Labor, arguing that "labor division is not merely an economic phenomenon that increases

prosperity, but also has a substantial moral component." International specialization, on the other hand, has become the bedrock of international economic exchanges between countries. Countries were split into two categories based on the international division of labor: developing or agricultural countries and developed or industrial countries.

In a general sense, international commercial activity is explained through international trade that their operations are known as activities related to company internationalization that, in a limited sense, include export and import operations, combined export-import operations, and transit (Krugman, 2009: 486).

There are a few things that distinguish these activities:

- A transaction's legal base is a synallagmatic contract; the essential legal instrument is an international sale contract.
- The parties have competing, even diametrically opposed interests, but they agree to reconcile them to form a mutually advantageous accord.
- Even if the parties' connection is long-terms or if long-terms transactions are done, the duration of a transaction is generally brief.

Strategic alliances, also known as competitive alliances or global strategic alliances, are international technology transfer agreements that include partners from several nations. Subcontracting of know-how, joint ventures, franchising, and other companies will be covered. Direct international investments are a strategic way for international residents to get access to the global market, and they may be defined as a foreign resident's ownership of certain assets in order to influence how those assets are utilized (Suranovic, 2010: 256).

The terms "international commerce" has been defined by a number of well-known international economists as well as popular encyclopedias. Some of the most important definitions are as follows: According to Toye (2003), when the division of labor is located at the outside national lines, international trade emerges.

According to Vernon, (1966), is trading that crosses national borders. International commerce can simply be represented as the exchange of commodities and services among nations, according to the Encyclopaedia Britannica. All of the

definitions above emphasize the fact that international trade refers to cross-national trade between nations or states.

Consumers and governments get access to new markets and products through international commerce. In contrast, an imported item is acquired from a global market, whereas an exported item sells to a global market. Exports and imports are included in a country's current account, and both have an influence on GDP.

States trade with one another on a regular basis, developing and maintaining deeper, more profitable business relationships while also contributing to global peace and security. Individuals, or nations in this situation, will be able to specialize in specific products or services as a result of international commerce. Firms that specialize can manufacture items at a cheaper cost and of higher quality than they might otherwise. When a country has a competitive edge, it may specialize in what it excels in and trade for what it lacks the resources to create, benefiting both countries (Posner, 1961: 289).

Take India and China, for example. China manufactures a large portion of the commodities that India consumes. China will be able to mass-produce these items more efficiently than India.

1.2. Volume and Direction of International Trade

Except for the period 1913-1950, which was defined by global political and economic instability, the amount of global goods trade has consistently outpaced the increase of output (1870-2004). While global economic production has been stable since 1950, global exports have risen at a rate that is more than ten times that of 1913-1950. At eleven trillion dollars in 2004, global trade was nearly three times that of 1990 (WTO, 2014).

Except for the United States, overall world trade had a monetary value greater than the gross national product of every country on the earth in 2004. The fact that one-fourth of everything grown or made on the globe is now exported is another evidence of global commerce's prominence. The rapid development of international trade following WWII can be ascribed to rising product and service consumption as more people in many countries reached the middle class. Commerce liberalization has produced a worldwide climate that is favourable to the growth and expansion of world

trade, both at the regional and international levels. The physical integration of international markets was also aided by new technology like as computers, telephones, and other media.

Because they are unable to produce what they require, small countries are more reliant on international commerce than larger countries. Larger nations (in terms of population) import less manufactured products per capita because their economies are more diverse, allowing them to meet the majority of their own demands. The instance of the United States, Japan, India, and China, which have low import propensities compared to nations like Belgium and the Netherlands, exemplifies the above assertion.

Over half of the world's trade is in goods. Almost a third of all commodities exports came from the top seven exporters in the world (the top seven exporter are USA, Germany, Japan, France, UK, Italy, and Canada). Agriculture, mining, and manufacturing are the three primary sectors of the products trade industry in the United States. Global commerce in manufactured products has been the most active. Services exports were anticipated to be worth \$2.12 trillion in 2004 while goods exports were expected to be worth \$8.91 trillion (US) that same year (US). Growing service exports has lagged behind goods exports for the previous few years. Product and service exports, on the other hand, grew by an average of 9 percent between 2000 and 2004 (WTO, 2014).

Global commerce is dominated by industrial market economies, which account for the majority of it. It is projected that more than 67 percent of international trade would travel through these countries. Trading with emerging countries and transition economies is dominated by western nations due to their global trade position.

1.3. Types of International Trade

International commerce may be divided into three categories. The three forms of trade are import, export, and transit.

1.3.1. Import

Is a phrase that refers to the process of purchasing goods and services from a foreign country. It's referred to as an "external purchase." It is the practice of domestic customers acquiring items made in foreign countries. When coupled with export, it creates a country's international trade balance. This is something that both legal and non-legal entities can do. It is also possible for governments and public economic entities to do so. In terms of a country's trading condition, the less imports it has, the better. In countries with high import levels, there is a trade imbalance. You may get high-quality items at a reasonable price via importing. They can then be sold for a profit (Lall, 1998: 231) Aside from this benefit, there are a number of drawbacks. Imports have the potential to damage local industries, impede economic growth, and force the payment of a "Goods and Services" tax. To complete your transactions, you'll require licenses and papers.

It's when you buy anything from another country. Countries import goods they can't create themselves due to financial or physical constraints, or those that aren't produced in large enough quantities to fulfill their need.

1.3.2. Export

It is the export of goods to a different country. In this trade, the products are sent outside of the country. Is the export to other nations of products or services made inside a country's boundaries? International trade is the terms for it. It is the process of changing foreign currency to sell a product or service to a country other than the United States.

It has a substantial impact on a country's trade balance. Direct and indirect exports are the two forms of exports. The gross domestic product of a country rises when items are exported. Exporting may be advantageous to you since it helps you to expand your business internationally. It increases job creation, domestic competitiveness, and cross-border communication. High shipping costs, the necessity for a little initial investment, and a loss of profit are among the other disadvantages. Before exporting, licenses and paperwork must be obtained.

1.3.3. Transit Trade

It is the delivery of products purchased by a company or warehouse outside the United States or in free zones to another company or warehouse outside the United States via our nation. Requests for transit trade are sent to banks using a "Transit Trade Form." Items that are forbidden from being exchanged by international agreements, as well as things that are not appropriate for transit trade according to standards, are not permitted to be transferred in transit. With nations that restrict import and export, transit trade is impossible (Carolan et al., 1998: 344).

1.4. International Trade (Export Orientation and Import Sensitivity)

The data studied confirms the hypothesis that politicians' behavior on political and security problems is influenced by their constituents' trade interests, as seen by their district's export orientation and import sensitivity. These effects may be seen in both roll-call voting and sponsorship activities, and they are mediated by party and constituency heterogeneity (Fordham and Kleinberg, 2013: 344). Import sensitivity appears to be less important than export orientation in terms of significance. However, only export orientation is statistically significant in predicting roll-call votes (Fordham and Kleinberg, 2013). Commercial activity minimizes international strife and promotes international cooperation in liberal arguments.

To begin, international trade advantages appear to affect countries' views toward trading partners, as the liberal argument predicts (Fordham and Kleinberg, 2013: 544). According to these research, public opinion polls have shown similar impacts (Fordham and Kleinberg, 2013: 348).

The liberal argument's conclusion is a necessary qualifier that does not violate its core logic. People in different countries have different political consequences of international commerce as not all countries benefit equally from global trade. If you want to know whether or not international commerce reduces friction between trading partners, you have to consider the fact that some individuals may expect their income to drop as a result of it. It is possible that these persons might be able to contribute to proposals for a more aggressive international strategy and trade protection.

In theory, the winners in a exporting and importing relationship should be able to decrease this incentive by paying the losers from the overall benefits of the deal. In fact, such compensation isn't always achievable (Fordham and Kleinberg, 2013: 544). It's also worth noting that legislative changes don't always have a direct impact on national policy (Fordham and Kleinberg, 2013: 566). Despite widespread support, the East Asia Security Act failed to become law. A large number of cosponsors have signed on to some of the other initiatives. Many measures that could harm US-China relations can and are prohibited by the executive branch. These legal changes haven't gone away. The cost of putting a halt to them rises in direct proportion to the number of followers.

When confronted with a tumultuous domestic political environment, the executive branch may opt to discontinue cooperative measures that it would have recommended otherwise. Additionally, because the Chinese government, for example, does not take negative views seriously in Congress, they may have an impact on political relations even if they do not become national policy (Fordham and Kleinberg, 2013: 466)

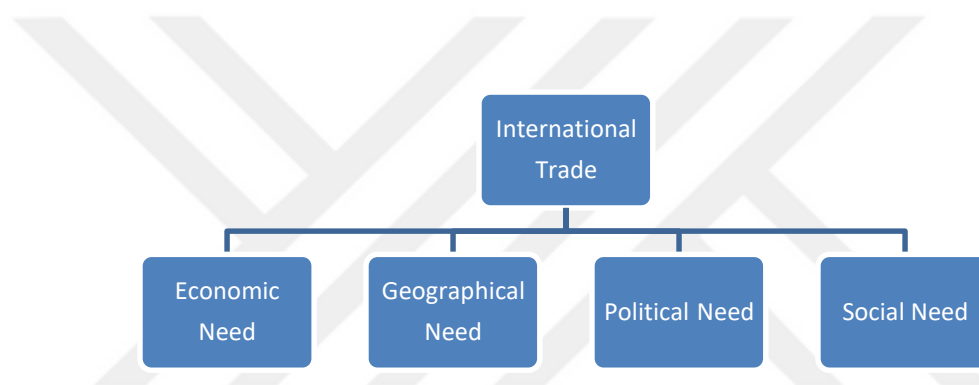
The importance of a bilateral connection cannot be overstated. This connection stands out in a number of ways. For example, compared to relations between the US and other key economic partners, many of which are old democratic allies, relations between the US and China are significantly strained. Those who have been disadvantaged by commerce with these other governments will struggle to persuade other Americans that they are possible adversaries. This does not, however, rule out the potential that trade has an influence on these ties. Even among the closest allies, they are contentious and divisive subjects. Those that lose money in trade may take a less cooperative position on these problems, using them to limit the trading relationship in some cases (Fordham and Kleinberg, 2013: 389).

1.5. The Necessity of International trade

Given its importance, international commerce has regularly outpaced the economy as a whole. As a rising share of national output is transferred globally, international commerce has grown faster than global output.

For nearly all of the world's industrialized countries, international trade has proven to be a powerful engine of growth and advancement. Sweden flourished as a result of international woolen and textile trade, Denmark grew as a result of dairy products, Canada grew as a result of wheat, Switzerland developed as a result of watch exports, and Japan grew as a result of silk and electronics, among other things. It assists all member states but not causing harm to any, argued by Ijaz, , Zakaria, and Fida, (2014). "International commerce helps nations improve the economic well-being and degree of economic growth of their citizens," according to a report. International trade is vital for a variety of reasons. Those areas could be considered underused.

Figure 1. International Trade



Source: Author Design

1.5.1. Economic Need

Economic factors are the most significant reasons for international commerce, and there are many of them. Some of the most important economic factors are as follows:

i) *To meet people's basic needs* - According to Omoju and Adesanya (2012), if a country lacks a basic necessity for survival, such as food grains, it can only be addressed by importing such necessities in order to save the lives of its citizens.

ii) *To import necessary technology* - Several nations acquire superior technology and machines from more industrialized countries to enhance their current level of technology.

iii) *To accelerate economic development* - International trade has long been thought of as the engine of growth and development, and countries may simply accelerate their economic development by engaging in it.

iv) *To benefit from the international division of labor and specialization* - Each country may take advantage of the international division of labor and specialization by producing just those commodities where it has a cost advantage over others.

v) *To increase foreign exchange reserves* - Many countries aim to raise their international exchange reserves in order to enhance their trade abilities, and a higher level of export might help the country overcome its obstacles in this regard.

vi) *To build economic infrastructure* - Many developing nations lack basic infrastructure, relying on international commerce to create it.

vii) *To take advantage of the comparative cost advantage* - Through international commerce, all nations may take advantage of the comparative cost advantage.

1.5.2. Geographical Need

i) *Natural climate and geographical location* - Every country in the world has its own distinct geography and climate, and no one country can produce a wide range of goods. Various countries produce different commodities due to differences in geographical circumstances, such as wheat in Australia and Canada, jute in Bangladesh, and dates in the Arab East, among others. As a result, many countries concentrate only on mass-producing specialized commodities and exporting them to other countries across the world (Ijaz, et al ,2014).

ii) *Inequitable distribution of natural resources* - Natural resources have not been distributed fairly. Many developed nations, such as the United States and France, rely on oil from the Arabian Gulf states.

iii) *Natural catastrophes* - In many countries, natural disasters such as earthquakes, floods, famines, droughts, and diseases are common. The country will need to seek the help of other countries to recover from these natural calamities.

iv) *Human resource differences* - Each country's human resources and capacities are distinct. In a variety of nations, we have highly qualified specialists.

While some people have poor physical and mental qualities, they differ and produce a variety of goods and services that may be traded internationally.

1.5.3. Social Need

i) *Materialistic attitude* - In this era of materialism, people have grown increasingly materialistic, with ever-increasing desires that can only be met through international trade.

ii) *Differences in culture and civilization* - Each country has its own culture, which has facilitated international trade. People want a wide range of flavors and consumption alternatives, as well as the chance to eat products that aren't made locally. For such people, international commerce becomes the panacea for achieving their goals (Lall, 1998: 55).

1.5.4. Political Need

i) *To advance political relations* - Many countries participate in international trade just to strengthen their political relations.

ii) *To advance imperialistic goals* - Some countries bolstered their imperialism through international trade under colonial rule. The best illustration is the United Kingdom's Commonwealth trade with its allies.

iii) *For political stability* - Several countries utilize international commerce to maintain political stability. Countries with more international commerce and fewer power transfers are believed to have more political stability and fewer power transfers. Political stability prevails in the United States, Japan, Germany, France, and the United Kingdom as a result of increased international commerce, but political instability exists in African states such as Uganda, Nigeria, and Kenya as a result of decreased international trade (Omoju and Adesanya, 2012: 126).

1.6. International Trade Theories

Over time, schools, renowned scientists, and trade operators all voiced their perspectives on the challenges at hand, culminating in the creation of the key classical concepts in international commerce.

1.6.1. Classical Theories of International Trade

1.6.1.1. Absolute Advantage

Beginning with Adam Smith's theory of absolute advantage, classic trade theories support unrestricted trade and stress the advantages of free trade for both exporting and importing countries. Unlike the mercantilist technique, Adam Smith believes that the main benefit of trade is not to increase a country's overall gold and silver holdings. If a country is the most efficient manufacturer of an item in contrast to other countries, it may expand its market and specialize in producing the good in terms of cost and quality. Importer countries, on the other side, may benefit from this trade since producing the identical thing would be prohibitively expensive, whereas the exporter supplies a cheaper alternative.

As a result, Smith contends that each nation should specialize in goods in which it has an absolute advantage and import goods in which it has an absolute disadvantage, allowing global output to be maximized by employing factors of production efficiently and effectively, thereby increasing national wealth (Omoju and Adesanya, 2012: 213). As a result, absolute advantage sees trade as a win-win situation, whereas mercantilism sees trade as a zero-sum game (Smith, 2010: 74). Due to its limits, absolute advantage has been unable to explain altering trade patterns, particularly during the last century, despite its potential to shed light on international trade dynamics and serve as a framework for trade theories.

One of Smith's major flaws is that he considers labor to be a consistent measure of production across the country. Smith's advice that a country with an absolute advantage in the manufacturing of an item should always export it is another key reason for the inability to explain cross-national commerce. However, in real-world business, this is not always the case, and it is not always in the best interests of the suggested country (Smith, 2010: 114).

1.6.1.2. Comparative Advantage

If a country has an absolute advantage in manufacturing a product, it should buy it (Karunaratne, 1996). According to his definition, opportunity costs are what you pay when you decide to forgo the creation of one item in order to produce one other thing instead. Because of its lower potential cost of production, one country enjoys an advantage over the other in terms of comparative advantage (Suranovic, 2010: 84).

Comparative advantage may be achieved by specializing in high-tech and high-value products in highly developed nations, for example. Poor countries get a comparative advantage from labor-intensive production, whereas wealthy countries gain a comparative advantage from capital-intensive production (World Bank, 2006).

As a result, the comparative advantage does not explain many of the features listed in the preceding pages as being part of the absolute advantage. These include economies of scale, imperfect competition, and the demand-side of trade, which happens mostly between industrialized nations. Items with high value-added and high tech in highly developed nations, for example, provide a comparative advantage (World Bank, 2006). However, Economies of scale, imperfect competition, and demand-side trade, which occur mostly between industrialized nations, are examples of features that cannot be explained by comparative advantage. And the theory ignores international variations in the productivity of labor in the calculation of costs and exchange rates for countries within a certain region, as well as the homogeneity of production within that region (Suranovic, 2010,98). As far as domestic commodity value is concerned, John Mill (2009) did not consider the cost of production until later in his analysis.

1.6.1.3. Theory of Production Factors Proportions

The H-O model was created by two Swedish economists, Eli Hecksher and Bertin Ohlin, and is based on the theory of production factor proportion, equating their prices between partner countries, as well as the hypothesis of equating the incomes from these countries, which is known as "Samuelson's paradox."

The authors argue that countries should export products for which they use the most of their available manufacturing components. Wassily Leontief put this theory to the test, using input-output analysis to look at the relationships between different sectors of the economy. B. S. Minhas was another expert who sought to assess the H-O model, proving that the notion of the production function's constant nature is not supported in practice in countries that engage in international trade. B.S. is a well-known expression (Suranovic, 2010: 184).

1.6.1.4. Mercantilism

Mercantilism, along with new capitalist production relations, was the first movement of modern economic theory to develop in the sixteenth century. It focuses on the quantities of precious metals that nations have access to, with the objective of obtaining them through export promotion and import restrictions.

Given that most countries were controlled by monarchs at the time this thesis was written, mercantilism appeared to be a sound economic theory. The following two pillars supported it:

Precious metals were utilized to generate riches and money, as well as money.

International commerce provided the advantage, with export functioning as a means of increasing national income.

Mercantilist philosophy, which was backed by N. Suta and Sultana Suta-Selejan, dominated the world's economic literature throughout the 16th and 17th centuries, and occasionally up to half of the 18th century.

Many authors suggest that developing countries, like developing countries today, require protectionism to thrive, with the latter being aided by a less protectionist governmental policy. The mercantilist current is currently fashionable in countries like Japan, France, and the United States, with an emphasis on industries that have lost their comparative advantage, such as agriculture (Trefler, 2010).

1.6.2. Modern Trade Theory

This model is based on Heckscher-Ohlin's main theorems: the (H-O) theorem; factor price equality; Stolper-Samuelson theory; and Rybczynski theory. O-H theory will be investigated exclusively in this research since it is the most significant contribution to the literature compared to the others because it may explain the reasons or causes of comparative advantage disparities across nations (Smith, 2010: 147).

The primary contribution of the concept is the incorporation of capital endowments (capital as infrastructure, machines, systems, and equipment) as the second component in production, in addition to labor. Production reality is shown by assuming two separate production variables: the proportions of the components differ. To create and export commodities, countries should combine two factors of varying intensities, and there should be a direct relationship between a country's factor

abundance and the factor intensity of its exported products. The outcome will be two sorts of commodities: capital-intensive products and labor-intensive goods; capital-rich nations will export capital-intensive goods, while labor-rich countries would export labor-intensive goods (Suranovic, 2010: 456).

In an attempt to confirm the H-O hypothesis, a number of investigations have been carried out throughout the years. For example, Leontief (1953) analyzed US trading patterns with other countries and found that it was a net exporter of labor-intensive commodities, while it was a net importer of capital-intensive products. This paradox helped scholars to understand intra-industry trade, which is characterized by the exchange of comparable items in both directions, particularly between industrialized nations (Krugman, 1980: 829). When it comes to writing about international commerce, the contradiction has given rise to "New International Trade Theories."

1.6.3. New Trade Theories

The colonial global economy collapsed after World War II, and international trading patterns changed drastically. Contrary to what Leontief paradox shows, traditional trade models were unable to account for some trade patterns, such as intra-industry trading. Researchers have developed new ways to bridge the gap and better comprehend international trade as a consequence. They raise doubt on assumptions like comparative advantage, perfect competition, and factor endowment in international trade. They also cast questions on scalability and product differentiation, as well as imperfect competition in international trade (Krugman, 1986,186).

1.6.3.1. Product Life Cycle

Posner (1961) asserts in his book *International Trade and Technical Change* that each country's technical abilities influence production differently and that the country with the technical edge and who exploits it in production is more likely to be the first exporter of that good for a length of time. A country's competitive advantage is eroded when another nation sets up local production facilities, and the first exporter becomes an imported commodity.

Imitating Posner's (1961) argument, Vernon (1966) created a product life cycle model to explain trade patterns. As a result, the product development process is divided into three phases. There's a higher likelihood of innovation being adopted and

marketed in the target market first when it comes to certain categories of high-income items according to the PLC model (meanwhile the first target is the home market). A creative country's initial step is to create a low-level export product, known as a "new product" stage. Because of its advantages in monopolistic markets and rising global demand, the exporting country rapidly expands its exports, and the product moves on to stage two.

There are now worldwide rivals and attempts to differentiate products become more intense in order to avoid price competition on the global market. The concept of "production relocation" is described by Vernon (1966) as occurring at a high level. A movement in industrial placement from western (north) to eastern (south) nations supports the PLC strategy.

1.7. Trade between Similar Countries and Intra-Industry Trade

International trade, according to Karunaratne (1996), is caused by variations in labor productivity or technology, while the Heckscher-Ohlin model connects it to differences in factor endowments by including capital as the second production component.

However, if the trade occurred as classical theories anticipated, countries would only export products in which they had an absolute or comparative advantage. The truth is that industrialized countries account for a sizable share of global trade, and they import and export products from the same industry (Linder 1961, Vernon 1966). Classical theories that do not presuppose two-way commerce of the same item between nations, particularly in areas where a country has a comparative advantage, are unable to account for the situation.

Lall (1998) explains the problem with the idea of "representative demand," stating that intra-industry trade occurs between countries with similar per capita incomes. This is because a product is created by considering the preferences of target customers, which are likely to be similar across countries with similar per capita incomes. Despite taking into account a number of current approaches like economies of scale and product diversification, Linder's method was unable to effectively distinguish intra-industry from inter-industry trade.

For the first time, the monopolistic competition was used to explain trade between developed nations. Some studies suggest that economies of scale are the most

significant factor in understanding trade flows in differentiated items because they examine the global market under imperfect competitive circumstances (Krugman, 1980).

To describe the process of reducing unit costs by increasing overall production volume, Posner, (1961) coined the phrase "economies of scale". He goes on to argue that every firm with a significant scale of economics has a demand for each distinct product.

Companies are compelled to specialize in different product categories as a result of demand-driven competitive market conditions, decreasing manufacturing costs. Customers from various nations with diverse tastes will demand differentiated products, and intra-industry trade will take place under monopolistic competition as a result of each nation specializing in the same product with distinct features (Krugman, 1980). Academics have been able to explain intra-industry trade, which occurs as a result of improved productivity in mass production due to specialization.

1.8. International Trade Policy

It's time to rethink the way we policy responses to international trade vulnerability are driven by factor endowments in political economy models, which stress the need for protection. These folks would come together to seek safety from the political system's elected leaders in this situation. Trade policy was either ignored or underspecified in most models.

Land, labor, and capital may be transferred easily from one sector to another in an economy because of factor specificity. Trade policy's demand-side theories are based on fundamentally different assumptions about variable uniqueness. Heckscher-Ohlin model was utilized by Rogowski in his landmark work "Commerce and Coalitions". As a result of the low specificity of factors, factor returns are equalized across an economy. Products should be exported if they make great use of their abundant components and imported if they make substantial use of their restricted components. As a result, owners of plentiful factors support free trade while owners of limited factors support protectionism (Omoju, and Adesanya, 2012).

As a result, trade policy alliances will be divided into factor or class groups. The Ricardo-Viner model, on the other hand, assumes that certain factors are frozen

in their current usage, resulting in unequal factor returns across an economy. Exporting vs. import-competing industries should be the basis for trade policy partnerships.

A trade preference cannot be explained by any of these ideas. Nelson (1988) notes that the mobility costs of the specific-factors model may be a result of productivity differentials, labor union activity, or individual preferences for membership in a given geographic area, industry, or firm (i.e., some form of solidarity) in his discussion of the endogenous tariff literature (Nelson, 1988: 773). If the specific-factor model was selected for any of these reasons, "it doesn't teach us anything about political organization," he explains in any of these cases.

Cost-benefit assessments are carried out by persons who are logical, as individuals organize in the political system to gain those benefits, costs of collective action play a part in the Heckscher-Ohlin and Ricardo-Viner models. In the opinion of Olson (1978), small organizations with specialized interests are easier to form and more effective in collecting economic rents than big groups with wide interests (Olson, 1978: 865).

Even while larger organizations have a harder time dealing with "free riders," smaller groups may more readily organize and target their operations than groups with broad interests. Why are agricultural producer groups in affluent nations able to organize for protection, while those in underdeveloped ones are not.

To be sure, as Nelson (1988) points out, we shouldn't expect organized interests to react in the same way to every crisis. An institution's interaction with other actors can help explain systematic patterns of behavior, especially when institutions formed for specific historical causes endure.

A group that has paid the fixed costs of organizing collective action and has built well-worn paths to public authorities would be in a position to defend its trade policy preferences even if the stakes are low since the marginal costs of action are low. If the organization's start-up costs are too expensive, "a substantially more impacted but inchoate group accomplishes nothing". Therefore, past organizational strength should be a key intervening feature in anticipating group trade policy behaviors Bleaney, and Greenaway, (2001). As Nelson (1988) notes, the efficacy of these institutions can be affected by supply-side operations, because some are classified as legitimate or illegitimate interest aggregators (Nelson, 1988: 767).

A study of the interplay between economic and political institutions is necessary as a result of this. When it comes to trade policy, most economic models presume that the economy can be described as an equation representing the demand side of the equation, we should look at how demand is communicated to trade policymakers, (Nelson, 1988: 281). When it comes to agriculture, Porche (2007) does an excellent job summarizing this issue.

The costs of building broad coalitions will not be paid by individuals if political systems encourage small sectoral groupings. Enormous mass movements will require people to shoulder the expense of forming large cross-sectional alliances. There is a connection between factor specificity, collective action costs, and political institutions. These writers say Rogowski argues for low factor specificity, low collective action costs, and domestic political structures that foster mass movements in his Heckscher-Ohlin framework (1989).. There must be particular variables and considerable collection action costs for coalitions to emerge, according to the Ricardo-Viner model discovered in endogenous tariff research. Some people believe that in exchange for political support, governments reward business actors with favorable trade policies. The state is regarded as a neutral aggregator of demands from many social groups, rather than a single entity, in pluralist philosophy (Cakir, 2009).

The power balance in a particular area or problem determines trade policy. Supply-side trade policy, while theoretically underdeveloped, plays an essential role in the equation. Some factors that influence the supply of trade protectionism include the political motivations of politicians to gain votes; electoral district size; party fragmentation; federalism; and presidential vs parliamentary systems (Nelson, 1988: 488) A knowledge of how countries decide on their trade strategy on a theoretical level is essential.

Unanimity among economists was reached in a 1984 survey that tariffs and import quotas, on the whole, diminish overall welfare . As international and intellectual criticism of protectionism grows, economists are looking for answers. These factors include anything from politicians' basic illiteracy to emerging-market debates about the justification for retaining "baby industries" and "optimal tariff levels." In order to explain what appears to be an "irrational" policy choice, researchers are increasingly resorting to political theories (Nelson, 1988: 790).

The link between trade and economic growth has been studied in a variety of ways. With his well-known excess export hypothesis, Adam Smith first brought this link to light in 1776. This concept was implemented in practice until World War II. Inward-looking and protectionist growth strategies were popular as a result of World War II. In the 1960s, academics contributed new concepts to the economic literature in response to the failure of these tactics and the necessity for rapid economic development through trade liberalization. These arguments support the notion that international trade policies are critical to economic growth (Afonso, 2001: 130).

In the international trade literature, export-oriented growth hypotheses are used to describe the link between export and growth. These assumptions account for the positive connection between export and national product, and the role of export-oriented ideas in economic growth. International trade theories look at the flow capacity of international commodities and services, as well as the economic contribution of these flows. These theories also explain why nations engage in international commerce, as well as the benefits and costs of exporting and importing goods. A multitude of hypotheses has been developed to try to solve these difficulties (Afonso, 2001: 149).

Under the mercantile system, the primary motivation for international trade was to expand the availability of precious metals. In theory, the goal is to cut imports as much as possible while growing exports (Krugman, 1994). The concept of absolute advantage, in contrast to mercantilist philosophy, asserts that free trade helps all countries. Lucas, (1988) thinks that rather than maintaining a closed economy, governments should engage in international trade. David Ricardo, Adam Smith's student, pushed for international trade based on comparative advantage rather than absolute gain. Absolute advantages, according to Ricardo, are not necessary for countries to engage in international trade.

David Ricardo claims that the only thing that counts is the level of domination. The ideas of the comparative advantage approach are accepted by neoclassical international trade theory. Export, according to neoclassical economists, contributes considerably to economic growth by promoting economic progress through increased investment and technological advancement. Furthermore, exporting broadens the market, which may improve a country's economic well-being (Krugman, 1994).

Developing nations should export goods to locations where there is a surplus of production and import goods to places where there is a scarcity of production, such as labor and natural resources. Despite the fact that numerous models have been created to illustrate the analytical validity of the Heckscher-Ohlin model, the essential function of variables in terms of international trade remained unchanged.

After the 1950s, it became impractical to describe marketable commodities for more than 200 countries with a single theory, new theories were created. To test factor endowment theory, Leontief (1953) proposed that the capital-rich United States buy capital-intensive products and export labor-intensive commodities.

The relationship between export and economic development has been the subject of several theoretical and empirical studies. According to Ram (1987), there is a positive link between export and economic growth.

Export can be seen as a development engine, according to classical economic theory. Since the 1960s, export-oriented growth has been on the increase, with countries that have pursued this path reaching considerable amounts of export profits. As a result, they have increased their growth rates. Furthermore, it has been demonstrated that countries that follow export-oriented growth strategies expand at a faster pace than those that seek import substitution strategies. Some scholars, on the other hand, claim that export has a negligible impact on economic growth, particularly in underdeveloped nations. As a result, economists believe import substitution strategies, rather than export-driven industrialization programs, may be required (Harrison and Revenga, 1995: 153).

Although export functioned as a development engineer in the nineteenth century, this no longer holds true now. Bhagwati's Immiserizing Growth Theory is one of the most well-known pieces of research proving the negative relationship between export and growth. This hypothesis holds if again in real income is larger than the loss caused by a change in the international exchange rate. If the international trade arrangements remain stable, there will be no problems. If it is smaller than the loss, however, the process of immiserizing growth has begun, and the increase in income is offset by the loss (Romer, 1986)

CHAPTER TWO

TERMS OF TRADE AND ECONOMIC GROWTH

2.1. The Concept of Terms of Trade

The terms of trade (TOT) are one of the most significant measures of a country's integration into the international labor market in the context of international trade. The greater a country's terms of trade are, the more it benefits from price fluctuations in international trade. The economic basis of the terms of trade and the volume ratio in which these two items will be exchanged is the presence of a causal relationship between the ratio of the prices of products and services. When the price of a product that a country intends to export develops more favorably over time than the price of a product that the country intends to import, the country will acquire a larger volume of the imported product in subsequent commerce for the same volume of the exported product.

The country's trading conditions will improve as a consequence. When it comes to commerce, the terms of trade are the ratio of an export price index to an import price index for a certain period of time. When a country's international trade price development is more than 100 percent in percentage terms, it reports a greater gain in value. Economics says TOT should be larger than 1, meaning that terms of trade for nations that lead the way in applying scientific and technical breakthroughs to manufacturing should improve in the case of Afonso (2001: 139).

The majority of countries, on the other hand, are sluggish to respond to economic and technological developments, resulting in a TOT of less than one. The terms of trade, according to some economists, are one of the indicators of a country's standard of living. Others argue that changes in the standard of living do not have to be linked to changes in trade terms because they reflect relative changes across nations rather than the volume of a country's exports. To determine changes in the standard of living, it would be necessary to examine volume changes in international trade, labor productivity, resource allocation, and capital flows. (Kehoe and Ruhl, 2008: 814).

It is the ratio of a country's exports to imports in basic words. The relationship between terms of trade and economic growth is still a source of debate among scholars.

The positive effect of terms of trade is that if export prices grow faster than import prices, national revenue from exporters will rise faster than national income from imports, making imports cheaper than exports and so positively affecting economic development (Robert, 2006: 90).

On the other hand, the rate of increase in import prices relative to export prices will have a negative impact on economic growth. The negative impact of TOT may also be explained by the fact that as domestic demand for foreign goods grows, demand for local goods falls, altering trade balances and, as a result, negatively hurting economic growth. When there is a substantial difference in inter-sectorial pay rates, terms of trade degradation can improve a country's national welfare. Similarly, according to Anam (1988), lowering TOT improves national welfare by lowering the social cost of imports, which is good for economic growth. Almost all studies in this field are based on the Prebisch–Singer (PS) hypothesis and the Harberger effect.

According to the PS hypothesis, countries that specialize in primary items will have lower terms of trade over time than countries that specialize in finished goods. To put it another way, countries that rely significantly on natural resource exports will experience a decline in their terms of trade as their natural resources dwindle. As a result, countries with plentiful natural resources would likely witness a decrease in terms of trade (i.e., higher import prices than export prices), worsening the trade balance and, as a result, slowing economic development (Thirlwall, 2003).

There are two major implications of the PS hypothesis. There are implications for basic products vs. completed (manufactured) commodities, as well as difficulties for impoverished countries vs. affluent countries. Variations in terms of trade, according to Mendoza (1997) and, output volatility in emerging nations accounts for about half of the total. Williamson (2009), and Cashin and McDermott (2002) are examples of studies that support the PS hypothesis (2001).

According to the HLM effect, a country's terms of trade drop have a negative impact on real income, resulting in fewer savings and investment, and finally a negative current account balance. Bouakez and Kano (2008), and Misztal (2001) all found evidence for the HLM effect.

2.2. Significance of The Terms of Trade

The most common way to define terms of trade is as a ratio of an export price index to an imported product pricing index. A rising terms of trade ratio means that for every dollar of export sales, more dollars of imports will be exchanged. Better trade circumstances may cause the economy to expend fewer resources. They still have to deal with the same volume of imports while also having enough resources to make exports. The resources that have been available can now be utilised to manufacture more domestic commodities or to purchase more imported items. (Williamson, 2001: 113). The number of items available to the economy for a given level of income is the same in both cases.

The amount of resources used has increased. A long-term trend of improved trade conditions might contribute significantly to increased long-term economic wellbeing. Similarly, a decrease in the ratio of export prices to import prices — a declining terms of trade — raises the cost of acquiring imports at the export level while lowering real income and living standards at home. The economy's well-being is deteriorating because it must dedicate greater resources to export production while cutting domestic output to sustain the same level of imports. In this situation, the overall number of products available for consumption must decrease to maintain a certain level of resource spending (Thirlwall, 2003: 244).

A decrease in trade terms, on the other hand, does not suggest that trade is harmful to the country; it just implies that trade is less beneficial. Lower terms of trade indicate that the magnitude of a country's trade gains has diminished, while profits are still there in the majority of situations. As a result, trade is likely to benefit the country more than it would without it.

A dynamic framework allows changes in the terms of trade to occur simultaneously with changes in the quantity of trade, altering the magnitude of the total trade gains. Due to this, the size of the "pie" to be divided is shifting. Since World War II, the amount of commerce in the United States has steadily risen, as has the extent of trade gains in the country (Kazumasa Iwata, 1984,452). If trade terms are falling, a nation should not overlook this since it might lead to a major reduction in economic well-being over time. (Neary, 2009: 217)

2.3. Factors Influence Terms of Trade

Bleaney and Greenaway (2001) states that changes in the average export and import prices have an influence on the terms of trade of the economy. Let us first distinguish between short-terms and long-terms factors. In the near terms, changes in national spending patterns can lead to changes in trade circumstances. It is possible that these fluctuations in spending are attributable to changes in economic policy or swings in private sector spending over the business cycle. As a result of either scenario, foreign currency enters or leaves the country, and the exchange rate rises or falls (Ijaz et al., 2014, 114).

According to Jawaid and Raza (2013), these events have two effects on trade terms. An economy with a falling currency would see a rise in the international currency price of its exports and a decrease in the domestic currency price of imports as a result of a net capital inflow, enhancing the country's terms of trade. Furthermore, the influx of foreign funds may result in a change in the home currency price of products produced in the lending country.

Money flooding is a net transfer of revenue from a lender to the borrower, according to Wong (2004). An export good's home currency price falls when the loan nation spends more on its exports than does the borrowing nation. Naturally, the borrower's trading circumstances increase as a result of this. Unexpected net capital outflows will lead to deterioration in an economy's terms of trade.

However, such changes in currency rates and capital flows may not last long. Both the borrower and the lender will set limitations on how long such an imbalance may be perpetuated. As a result, there's a good chance that economic forces will eventually reverse the domestic spending pattern or the economic policy that started this process, as well as the influence on trade terms. More fundamental shifts in international demand and each economy's production prowess are likely to have longer-terms implications on trade conditions (Kaneko, 2000: 177).

Any action that raises the demand for a country's products, according to Wong (2004), would improve the country's trading conditions. For better or worse, changing market tastes and preferences will often force such demand changes. Export demand may be ensured by the economics of a country. This will increase export prices and

improve the nation's terms of trade if an economy can continue rapid technical advancements, which serve as an ongoing supply of new and higher-quality items.

While international manufacturers may eventually erode the significant economic benefits associated with any given innovation or new product, the country's exports will continue to be rich in new, highly desired products as long as the innovation process continues.

According to Cakir (2009), an economy with a comparative advantage in the development of new products has a comparative advantage, and revenues from trade in these items are likely to have a long-term beneficial influence on the economy's terms of trade. Economists agree for example that the United States has been an innovative economy for more than a century. If, on the other hand, technical development is largely measured by an improvement in the efficiency of current industrial processes, it is an occurrence that increases the amount of products exported, therefore worsening the country's terms of trade. While also benefiting the economies of the countries to which it sells. This degradation is the result of two factors at work. One, increased output improves real income, which increases demand for imports and hence rises their price (Bouakez and Kano, 2008: 258).

Two, the worldwide market will tolerate a higher volume of exports, but at a lower price, as a result of technological advancement. If foreign manufacturers expand the number of products that a country exports, the terms of commerce will change in a similar way. This may be the consequence of existing foreign manufacturers improving their efficiency or an increase in the number of overseas sources of supply (Carbaugh, 2013).

If a country's economy is growing at home and abroad, it is likely to favor the creation of goods that it exports or favor the manufacture of goods that it imports throughout the course of time. Trade imbalances that advantage our trading partners tend to deteriorate the conditions of trade over time. Another option is for a country to enhance its trade conditions at its trading partners' expense, if they are having import-driven development elsewhere.

2.4. Economic Policy and the Terms of Trade

Changes in trade terms are frequently a byproduct of policies aimed at achieving other economic goals, therefore they are unlikely to be a main focus of economic policy. Nonetheless, knowing how different economic policies affect trade terms is critical in order to design policies that benefit the economy the greatest (Bouakez and Kano, 2008: 260).

It is also possible, according to Mendoza (1997), to design policies that increase the likelihood of beneficial terms of trade effect while focusing on other goals. It's possible, of course, that making trade terms a policy goal would be appealing. This section will look at how different sorts of economic policies are expected to affect the economy's trading terms. Each policy's potential practical feasibility will also be examined.

2.4.1. Macroeconomic Policy

In terms of trade terms, traditional monetary and fiscal policy actions are unlikely to be clearly directed at attaining a specific purpose. The goal of these powerful policy tools is to promote economic stability by ensuring steady and rapid growth, low inflation, and low unemployment. On the other hand, such macroeconomic measures can have a large indirect impact on trade conditions.

Bouakez and Kano (2008) declare that pursuing stability aims would lead the dollar's exchange rate to fluctuate on a regular basis, with these changes having a direct impact on relative export and import prices, as well as the conditions of trade. In the 1980s, we witnessed how a robust economy combined with restrictive monetary policy might result in a boom. An expansive fiscal policy (caused by tax cuts intended to lower federal tax burdens and spending increases intended to strengthen national defence) raised domestic interest rates, which resulted in a large net inflow of international capital seeking a higher relative return on U.S. assets, leading to the dollar's significant appreciation during this period. In the United States, the value of the dollar's terms of trade has risen. Although there was an improvement in commercial terms, it was short-lived and did not last long. The economy is shifting due to a shift in macroeconomic policies and a decline in international capital inflows.

The trend of improving trade conditions was reversing. Macroeconomic policy may have a second, less immediate, but more long-term influence on trade circumstances. As a result of a consistently well-run economy with quick growth and low and steady inflation, technological development and innovation are more likely to flourish, as is an economy with a wide range of healthy and forward-looking sectors. The outcome of such a demand reaction may be advantageous trade conditions. Trade circumstances may suffer as a result of excellent macroeconomic policy that simply enhances our ability to provide goods to the global market (Barro and Sala-i-Martin, 1997: 142).

2.4.2. Technology Policy

In economics, technology refers to the process of integrating restricted resources to generate a desired product or service, according to Arize (1996). Whether it's growing wheat, building automobiles, or inventing a new drug, the "engine" that drives continual development in the nation's economic well-being is the steady progress of technology through time, allowing more and better output to be generated from any given endowment of economic resources.

Increasing output will be a sign of this tendency. As well as an increase in worldwide demand for new and improved products, a rise in the country's terms of trade may also be a factor. With a rise in export prices, the trade balance between imported and exported goods rises. What is the subject of public policy here, exactly? When it comes to developing technology, it's all about coming up with fresh ideas. However, the private market economy is likely to devote less resources than is socially desirable to the creation of new ideas (Jawaid and Raza, 2013).

To the extent that fresh ideas lead to attractive outcomes that can be secured by a private firm, the market economy will generate new ideas and stimulate technical advancement. However, one of the characteristics of ideas is that they are non-rival, meaning that my use of the concept does not prohibit someone else from doing so.

Furthermore, concepts typically have a limited excludability feature, which makes collecting a charge for their use difficult or impossible for the concept's owner. As a result of these features, the private and societal gains will most certainly vary. The reward to the concept's creator will be less than the benefit to the entire economy.

As a result, less than the socially optimal quantity of idea creation will take place. As a result, if this activity is to be carried out on a socially optimal scale, government involvement and aid may be required.

It is possible to fix the so-called market failure in idea development if the government provides enough support for the idea generation process. Research and development, particularly in basic science, where market failure is more likely to occur; human capital investment, particularly in the sciences and engineering, where the cumulative benefits of knowledge often extend beyond the individual; and public support for market failure prevention mechanisms could all be used to reduce market failure (Jawaid and Waheed, 2011: 231).

Of course, these are activities that could outweigh the tariff's distortion costs and improve the economy of the imposing country. The "optimal tariff" is an economic concept that refers to determining the tariff rate that maximizes this beneficial effect. In principle, the export sector may also be used to create a positive terms of trade effect through trade policy. Export subsidies will reduce the terms of trade since they tend to lower export prices (Bleaney and Greenaway, 2001: 427).

As a result, to have a beneficial impact on trade conditions, a negative subsidy or an export tax that raises export prices is required. If the beneficial effect on terms of trade is high enough, the bad effects induced by the export tax's distortion costs may exceed the negative effects. The "optimal" export tax rate is the one that optimizes the instrument's beneficial economic impact. Trade policies that utilize tariffs or export taxes to try to enhance the economy's terms of trade, on the other hand, are debatable in reality (Ijaz et al., 2014: 913).

To begin with, these rules may only apply to extremely big trade economies like the United States, whose exports and imports account for a significant part of global sales and so have the potential to affect global export and import prices. Second, there's no reason to assume that price adjustments of this magnitude will have a significant impact. Third, there is every reason to assume that utilizing these policy instruments to enhance terms of trade will not be sustainable owing to retaliation by other nations, regardless of how substantial or minor the prospective gain. Any government that employs these trade policy instruments will engage in commerce with other nations. We should anticipate impacted countries to retaliate rapidly, wiping out

any early economic advantages for the US while also reducing the economic well-being of all trading nations if a spiral of retaliation and counterretaliation creates a substantial reduction in global trade (Jawaid and Raza, 2013).

According to Wong (2004), the terms of trade may improve as a result of increasing export demand. Policy in the Industrial Sector Theoretically, there may be "special" industries that, if supported by the government, could grow to provide significant future economic advantages. These specialized enterprises, on the other hand, would either not exist or survive on a very small scale if not for public support. While there are several arguments for the government to support specific businesses, two of them have some economic value. One is financial assistance to firms that provide "positive externalities," as economists refer to them.

This indicates that the beginning firm's or industry's actions have the potential to produce substantial economic advantages that spread to other firms or sectors, but the initiating company can only collect a small portion of those benefits. In most cases, new idea generation is a critical economic activity for economic growth. However, because the excludability of an idea is restricted, a company's ability to fully exploit the economic benefits of the concept it has produced may be constrained. (Krugman, 1994: 365).

Company participation in knowledge generation at a level that serves the entire community will be diminished without government support. A company's government support might be based on significant positive externalities. As a matter of fact, it's a difficult process in practice. As a result of this, knowledge that would not normally be generated can be created with the aid of such a programme. Most likely, this will be a challenging assignment. There's no market price for these tasks, therefore estimating the amount of support needed will be challenging even if the aim is well defined.

According to Arize (1996), a support policy risks becoming too harsh as a tool for simply increasing economic efficiency, as it may result in additional costly distortions. At the international level, information developed by one country at great expense may be easily appropriated by industries in other countries, reducing any national advantage gained by supporting a particular business or industry.

Another potentially valid reason for government support of a particular business is the presence of "strategic industries. Only a few businesses will be able to operate effectively in these industries, and each firm's actions will have significant ramifications on the profit potential of other rivals. Firms with a substantial degree of monopolistic power and the ability to make above-average profits would likely thrive in this oligopolistic market system. Taking a substantial portion of those earnings would boost the economy of the home country.

2.5. Terms of Trade and Economic Growth

The relationship between TOT and economic growth has been studied extensively in the literature. For our research, we selected the most important papers in this subject. Only a few studies have focused on time series data, with the majority of the research focusing on cross-country relationships. The studies on cross-country research that have been conducted are listed below. Over a 32-year period (1973–2004), Arize (1996) examined 16 countries. The results of the co-integration approach show that TOT has a positive influence on trade balance in the majority of the sample nations.

Over an 18-year period (1972–1992), Mendoza (1997) examines the relationship between terms of trade and economic development in 40 industrial and developing countries. The findings of the panel data estimate approach indicate a link between terms of trade and economic growth. Over a 26-year period (1982–1995), Bleaney and Greenaway (2001) studied 14 sub-Saharan African economies. They claim that terms of trade increases economic development using a panel data estimation approach. They also arrive to the conclusion that TOT volatility is harmful to economic growth.

Furthermore, they discover substantial evidence of asymmetry in the growth rates of the core and periphery economies. The relationship between TOT and economic growth was also shown to be relatively weak for both the core and the periphery. Blattman et al. (2003) looked examined data from 1870 to 1938 for 35 different nations. There were 19 core nations and 16 peripheral countries among the 35 countries studied. The findings point to a strong link between terms of trade and economic development in both the core and periphery. The extent of this influence, however, is higher at the perimeter than in the center. Blattman et al. (2004) used the

same panel data estimate approach to get the same result as they had before for 35 nations during the period 1873–1941 in comparable research. The findings reveal that the TOT impact differs between the core and the periphery. Cakir (2009) looked at 18 rising economies during a 12-year period (1992–2004).

The results of generalized methods of movements (GMM) demonstrate that TOT has a substantial beneficial impact on economic growth. Over the course of five years (2003–2008), Jawaid and Waheed (2011) looked at 88 nations. The results of ordinary least square estimate show that TOT has a considerable beneficial influence on economic growth, but its volatility has a negative effect. Only a few research have used time series data to investigate the indicated link. These investigations include the following. Wong (2004) looked at the impact of terms of trade on Malaysia's economic development from 1968 to 2002. The use of co-integration and error correction econometric methods suggests that terms of trade and economic growth have a favorable long-run and short-run relationship.

According to Grime (2006), the terms of trade volatility is responsible for more than half of the variation in economic growth in New Zealand during the past 44 years. This is true for all four economic systems. Japan and Korea's economic progress from 1995 to 2003 was studied by Wong (2010) between 1973 and 2006. To estimate growth rates in terms of trade and real gross domestic product (GDP) per capita, the Johansen co-integration approach is used. According to the study, the terms of trade has a detrimental impact on economic growth and growth. India's economic growth has been studied for 32 years by Jawaid and Raza (2013). ARDL bound testing estimations demonstrate that terms of trade are positively connected to economic growth over the long run. To explore the claimed connection for China, Jawaid and Raza (2013) utilised ARDL model. A detrimental influence on economic growth was claimed by them, as a result of terms of trade.

Using time series data from 1980 to 2012, Carbaugh, 2013 looked at the relationship between terms of trade and Namibia's economic growth. A cointegration study showed that terms of trade have a detrimental influence on economic growth. A good place to start is by understanding the importance of trade terms and openness in economic growth. A country's terms of commerce is the ratio of an index of export

prices to an index of import prices. A country's trade deficit is calculated by comparing its export and import prices (Carbaugh, 2013).

An economy's terms of trade improve over time when export price increases outpace import price increases. An improvement in trade conditions, therefore, results in increased export revenue for a price-taker on foreign markets and, therefore, a rise in national income. As a result of a decline in trade terms, the country's revenue decreases. When determining trade openness, the ratio of exports plus imports to GDP is utilized. Alternately, trade openness is a measure of how restrictive or friendly economic policies are toward international commerce. Therefore, a country's economy should be stronger if its score is greater.

Since many people have been interested in the impact of trade terms and openness on economic growth, there have been several theoretical and empirical investigations.

2.5.1. Antecedents of the Terms of Trade and Economic Growth

The impact of trade openness, primary commodities, manufactured goods, and trade conditions on economic growth have all been fiercely disputed subjects. Over time, many diverse viewpoints on the issue have arisen. Romer's (1986) and Lucas's (1988) new growth theories presented strong evidence that openness promotes economic growth. They argued that the more countries that are open to international trade, the more advanced technologies from developed countries can be absorbed. Some authors, such as trade liberalization opponent Krugman (1994), have claimed that the impact of international trade on economic growth is uncertain. According to traditional thinking, the terms of trade for primary commodities will improve with time. Classical economics made their predictions based on the reality that land and natural resources are finite, but population and demand will continue to rise. As a result, the relative price of primary commodities will eventually rise.

Trade terms and economic progress are seen differently by neoclassical economists. They claim that trade terms have an impact on a country's ability to export and that trade terms determine a country's ability to export. They underlined that the efficacy of the channel is influenced by the level of development in each country. As a result, changes in trade terms based on consumption and output are limited by the

"pace of development." If the consumption of imported commodities exceeds local output, the terms of trade of emerging nations would decline. Furthermore, because demand for their export commodities is inelastic, their terms of trade will continue to deteriorate (Diakosavvas and Scandizzo, 1991: 223).

In 1950, Prebisch and Singer introduced one of the most fascinating viewpoints on trade conditions and economic growth. The "Prebisch- Singer thesis" was devised by both of them. According to the two authors' studies, the net barter terms of trade between primary commodities and manufactured products are on the decline in the long run. That is, the terms of trade of primary-commodity-dependent nations tend to deteriorate when the price of basic commodities declines relative to the price of manufactured goods over time. This may be explained by two types of negative effects on primary commodity-dependent nations' trade terms.

The first is attributable to the fact that the two groups have different product and labor market institutional characteristics. The second disadvantage of technical development is that its effects are not evenly distributed between the two groups, and it has an uneven impact on future demand, favoring manufactured goods over agricultural goods. As a result, according to Prebisch-Singer, international trade benefits will not be distributed equally between countries that rely on fundamental exports and those that export manufactured products.

That would explain why the difference between the two groups' per capita income is increasing. Pryor (1966) sought to offer a framework for all of the previously published ideas regarding economic development and trade conditions. Using the reciprocal demand curve to describe supply and demand elasticities for imports and exports, he looked at the link between growth and trade terms. Regrettably, the vast majority of the cases studied were discovered to be unresolved. Also, Kaneko (2000) has carried out fascinating theoretical research of terms of trade and economic growth in a tiny open economy. This study examines the relationship between economic growth and the specialized structure of developing nations using human capital accumulation.

2.5.2. Terms of Trade Volatility and Economic Growth

To begin, Hans Singer claimed that changes in trade conditions had a substantial influence on the money available to rising nations for capital accumulation, and thus growth. Developmental countries require changes in the volume and value of international commerce since their surplus income above subsistence is mostly dependent on export profits, and investment is consequently reliant on these sources of revenue. When it came to trade patterns in terms of volatility, Singer missed an opportunity by disregarding the link between the two.

A similar link between volatility and growth has been shown by economists in the previous decade by combining business cycle theory, growth theory, and statistics on macroeconomic volatility (particularly trade shocks). Singer anticipated that short-terms volatility is adversely associated with growth, and they've shown that this is generally true. Using data from 92 developing and industrialised countries from 1962 to 1985, Cashin and McDermott, (2002) examine the cross-country evidence of macroeconomic volatility and growth. Changes in government expenditure and macroeconomic volatility, as well as a connection between higher macroeconomic volatility and lower mean growth, are among the findings.

The relationship between terms of trade volatility and development has been the subject of several recent studies, with a focus on the African experience. When it comes to understanding macroeconomic trends in 22 non-oil-exporting African states between 1970 and 1990, Ayhan Kose and Raymond Riezman look at the influence of import-export price volatility. When they built a basic multi-sector open economy model using African data, they discovered that price fluctuations in these tradables account for roughly half of the volatility in aggregate production. According to the study, negative shocks also result in a significant reduction in aggregate investment.

They use an entirely different model but get to the same conclusion: terms of trade shocks have a significant influence on the macroeconomic volatility of African nations. For example, growing terms of trade (because to their influence on lifetime income) will cause predicted consumption increase, while volatility in exchange rates will have a declining effect on consumption growth (due to risk preferences).

The fundamental assumptions of his model are supported by cross-country panel regressions of 40 affluent and developing countries, with terms of trade shocks accounting for roughly half of real GDP fluctuation. Bleaney and Greenway (2001) achieve similar conclusions using a panel of 14 Sub-Saharan African nations. Studies show that economic development and terms of trade fluctuations have a negative relationship. Growth and investment both rise when terms of trade improve, but volatility in terms of trade has a detrimental impact on both. Investing in the face of uncertainty appears to be the favored strategy in the academic literature. A group of emerging nations where international investment exceeds domestic investment is also included in the study. All of the preceding articles, on the other hand, cover only two or three decades and are primarily concerned with the twentieth century's final decades. We believe that looking at these results over a longer period of time is beneficial, especially when primary product exports dominated the periphery even more than they do now.

2.5.3. Terms of trade trends and economic growth

The study of the influence of terms of trade volatility on economic growth is older and more controversial than that of secular trade patterns. In reality, there is no well-articulated theory, let alone agreement, on the long-terms trade patterns' effects on growth. One group of analysts predicts a favorable relationship between trade terms and income growth. Singer's hypothesis that rising trade terms might result in surpluses for long-terms capital accumulation has been discussed previously. This position is supported by the empirical evidence examined (Bleaney and Greenaway, 2001; Mendoza, 1997).

This, however, is not the assertion that Singer's article is most known for. Singer and Raoul Prebisch argued in 1950 that the basic character of primary goods and manufactures would lead primary product prices to decline compared to manufactures in the long terms. As producers of progressively cheaper basic products and consumers of more costly manufactured goods, primary product specialized nations' terms of trade would deteriorate, resulting in a proportional drop in incomes.

The Prebisch-Singer hypothesis is based on the assumption that, over time, primary product commodity prices will tend to decline compared to manufacturing prices. Manufacturing sectors, according to Prebisch and Singer, create monopolistic

profits, which eventually convert into real wage rises. Productivity improvements, on the other hand, would result in a drop in prices rather than a rise in salaries in commodity markets. Because most commodity markets are highly competitive and commodity demand is income inelastic (Krugman, 1991).

It has recently been shown that structural differences between manufacturing and primary production have an influence on trade terms, both theoretically and empirically. When it comes to price- and income-inelastic commodities, Sachs, and Warner (1995) presents a theoretical model in which developing nations might be trapped by the specialization they gained from previous generations. Rather than pay raises, productivity gains under the Prebisch-Singer model are reflected in price reductions. When primary production is handled as a competitive market, whereas manufacturing salaries and prices are decided by mark-up pricing and union/employer negotiations. Data from the post-World War II period supports the Prebisch-Singer idea of declining primary product prices relative to manufacturers.

A number of other ideas suggest a negative relationship between trade terms and economic development. As Sachs and Warner (1995, 2001) explain, countries with abundant natural resources grow more slowly than those with restricted natural resources. One of the best indicators of slow economic development, according to cross-country regressions, is a country's specialization in fundamental items.

But no single theory for the natural resource curse has been widely accepted. Using the more common 'crowding-out' argument, Sachs and Warner argue that primary production pushes out other growth-enhancing activities. In many resource-rich nations, they argue, manufacturing is a dying industry. It is possible to substitute the crowding-out theory with a political economics perspective.

The rent-seeking behaviour of resource-owning elites in undeveloped nations, is one example. Velasco (1999) and Tornell (1992) claim that resource-rich impoverished states have undeveloped property rights, resulting in benefits (such as rents) being shifted to wealthy countries for protection. Increases in trade terms lead to a capital flight, as a result of this. It appears that there is a link between a decline in the secular terms of trade and economic growth in the primary-product-producing peripheral countries.

CHAPTER THREE

TRADE AND ECONOMIC GROWTH OF IRAQ BETWEEN (1990-2019)

3.1. Background

In the decade after 1990, Iraq's industrial and agricultural capabilities declined, as did its transportation and infrastructure systems, and the population's education levels and standard of life. As part of the UN's Oil for Food Program, oil supplies resumed in 1995, albeit at a reduced pace. Due to a scarcity of raw materials, its manufacturing capacity was limited. Economic infrastructures were damaged or destroyed as a result of the recent conflict and its chaotic aftermath. As a result of the conclusion of the conflict in 2010, Iraq's economy had to be completely rebuilt. Its vast oil reserves can serve as a future growth and development engine. However, unlike the original, it does not start from scratch. On the future of Iraq's economy, history, aspirations, and goals will have a major yet unforeseen influence (Al – Hade, 2020: 74).

Centrally planned economies lack the legal, political, economic, and regulatory institutions necessary for successful market economy. For a former World Bank executive in charge of international economics, obtaining high-quality institutions is crucial to attaining lifestyle convergence. To put it another way, Institutions refers to a set of rules and norms that control society and enable a market economy to function properly. Since the economy needs to be stabilized, Iraq's rebuilding efforts must focus on establishing institutions that can not only stabilize it, but also act as a long-terms development engine. This study gives an overview of the trade and economic growth of Iraq between (1990 -2019).

3.2. Iraq's Economy in Recent Years

Since the Ottoman Empire, the Iraqi economy has been characterised by a high degree of state control and involvement. Whether it was the British mandate or monarchy, Baathist tyranny or Saddam Hussein, analysts agree that all administrations had the same goal. Accordingly, each successive dictatorship tightened its hold on economic power. Another objective of this initiative was to

provide for a large number of people who were employed by the government and relied on it for their livelihood. This is because oil money funded development projects and disguised economic inefficiencies due to economic statism, thus no hard decisions were taken in 1970. Iran's oil reserves were reduced when it invaded Iraq in 1980, pushing the nation into debt. First Gulf War economic restrictions made an already fragile economy much worse. This is due to the fact that economic data was classified as state secret during the Baathist regime. According to what little data is available, the country's GDP has been declining since 1980, and there has been chronic inflation, a wholesale devaluation of the currency, and almost no foreign investment.

3.2.1. Economic Challenges in Post-Conflict Iraq

It is vital for the US-Iraq strategic partnership that Iraq maintains economic and political stability as well as political accommodation, notably in terms of commerce. Contrarily, deciphering essential components and patterns is far from straightforward. As a result, Iraqi data is sparse or non-existent in most cases. Iraq's biggest economic problems were mostly ignored by US and Coalition forces, who published overtly politicized evaluations to make Iraqi "reconstruction" appear more effective than it actually was (Braude, 2003: 231).

- Iraq's reliance on the petroleum industry for much of its economic growth, government income, and self-financed development and security initiatives in the short and medium terms.

- Critical issues in other sectors of the Iraqi economy, such as manufacturing and agriculture, as well as numerous government services, including as health and education.

- Special Inspector General for Iraqi Reconstruction (SIGIR) and other studies reveal that US and other international assistance programmes have fallen well short of their goals, frequently causing more harm than good in the process of reconstruction.

- Assuring investors that international and local investment is secure, as well as ensuring that infrastructure and development projects are not targeted. During the next several years, the majority of Iraq's stabilization and rebuilding programmes

will be funded by oil revenues. Pending obstacles in the way of this process, including political and economic ones, and it might take months or even years to increase Iraqi exports enough to pay for all of its reconstruction expenditures. Iraq must find a means to fund these initiatives in the short terms, notably through international aid programs and loans. Iraq must find a means to grow other areas of its economy in the long run, at the very least to the point of self-sufficiency right now, Iraq imports many of its products from neighboring nations, particularly agricultural commodities from Iran (Fathi, 2009: 83).

The government seeks also to improve the country's business laws for economy, foreign trade and establish an oil legislation to guarantee that existing and future oil contracts are lawful, and that the process of granting these contracts works efficiently. Otherwise, Iraqis will have a difficult time recruiting international investors to these sectors. Above all, Iraq must find methods to support its development initiatives, particularly in the health and education sectors, which are severely underfunded and understaffed. These components of reconstruction are critical for addressing Iraqi people's needs and averting sectarian conflict. There is no way the government can achieve long-terms peace and prosperity if the people of Iraq do not think that they are receiving security and basic services. A post-conflict rebuilding and long-terms growth problem is never a simple one, but the Iraqi government can help in specific areas by providing additional funds, logistical support and advice. We must continue to implement the measures we have undertaken to ensure Iraq's ability to provide for its people, as this is a fundamental component of the US-Iraq Strategic Framework Agreement.

The lowest levels of state personnel, on the other hand, have suffered severely as a result of years of conflict, economic sanctions, foreign trade, and a general reduction in government income since 1991. Salaries did not keep pace with the rising cost of living. Many families were forced to sell their belongings and other valuables. The influx of people to cities also increased the number of urban poor. Former rural inhabitants' unemployment or underemployment was an issue, and it has gotten worse in the last twelve years. Iraqis have been more reliant on family networks and religious organizations in recent years for help that the government no longer delivers. Iraq's population is made up of people from many different religious

and ethnic backgrounds. The official religion is Islam, which is followed by 95 percent of the population (Sanford, 2003: 39).

3.2.2. The Weakness in the Iraq's Economy

Since 1973, a steady stream of unsuccessful attempts to forecast oil prices and revenues has served as a sobering warning about the capacity to transform a passing trend into a long-term prediction. Peak oil prices looked to be a new constant for the future in 2008, until they plummeted in 2009. Oil prices are still higher than they were at the start of 2009, but they are still lower today. A significant global economic rebound tomorrow may drastically alter Iraq's current economic situation. No one can anticipate when or how abruptly such a shift would occur. Iraq's political and internal stability, on the other hand, is largely dependent on its ability to increase oil revenues to support economic recovery and growth, as well as its ability to distribute petroleum revenues so that each major party thinks it has a fair share. Oil revenues must also be adequate to keep government workers employed, drive Iraq ahead on the path to long-term prosperity and produce a level of general economic activity that results in acceptable employment and income levels.

3.2.3. Iraq's Economy Challenges and Threats

Since the invasion in 2003, international assistance efforts have produced notable successes, but they have failed to address the full range of real-world economic concerns that affect ordinary Iraqis and have an impact on the country's security and stability. The United States has spent \$52.3 billion in aid, promised close to \$43 billion, and disbursed \$38.5 billion as of July 1, 2009. Many of the civic components of this aid, on the other hand, have resulted in as many failures as successes. As the Special Inspector General for Iraqi Reconstruction has demonstrated in many reports, most of the international relief effort was poorly planned and managed. It has been marred by a great deal of corruption and waste. Projects are far too frequently not linked to an adequate study of Iraqi requirements. To make matters worse, many of these initiatives are now being phased out without a clear plan for transferring aid programs to Iraqi government (Braude, 2003: 217).

Many of these difficulties are the fault of the United States, which has failed to address the whole spectrum of concerns involved. Much of recent US economic

research of Iraq has concentrated on macroeconomics and survey data, rather than looking at income distribution by sector, unemployment, corruption, and other economic security issues that impact regular Iraqis. Since the commencement of the Iran-Iraq War, considerably less attention has been paid to increasing poverty, development failures, lack of real-world reconstruction in almost every endeavour, educational breakdowns, and demographic pressures. Despite billions of dollars spent on relief and reconstruction, Iraqis have seen little change in their everyday lives. Unemployment and underemployment are dangerously high, the health-care system is failing, many basic services remain unavailable, and the educational system is falling behind. Cutting ribbons is usually given precedence over meeting Iraqi needs. Transferring reconstruction tasks to elected Iraqi officials may help to alleviate this issue in certain respects since these authorities must be more attentive to local demands (Al - Hade, 2020: 84).

The Iraqi government, on the other hand, has the same competence to carry out programmes, and Iraqis continue to watch monies squandered while their standard of living deteriorates. Economic and Policy Developments in the Recent Past Iraq's economy has been moulded by decades of political, economic, and security shocks, exacerbating the country's present fragility trap. Iraq is one of the world's most oil-dependent countries. In 2019, oil accounted for more than 96 percent of exports, 92 percent of government budget income, and 43 percent of GDP. Because of the over-reliance on oil, the economy has become more unstable and investment in other areas has been curtailed. Multiple security shocks, including as regional conflicts and ISIS attacks, have left the non-oil economy with little room for development. Because of the current economic situation, the private sector's important role in creating jobs has been hampered to some extent. The public sector's size and wage bill rigidity have limited budgetary headroom for expenditures in human capital and infrastructure, as well as the government's ability to respond to economic shocks (Al - Hade, 2020: 88).

Even before the worldwide epidemic, poor service delivery and rampant corruption, as well as growing unemployment and poverty rates, prompted public discontent. There are severe macroeconomic issues in Iraq's economy as a result of COVID-19 outbreak and collapse of global oil markets. Improving economic growth has been halted for two years as Iraq's GDP declined 6.8% year-over-year (y/y) in

the first half of 2020 (H1-20). As a result of reduced global energy demand and the OPEC+ output reduction, Iraq's oil GDP shrank by 10.4% year-over-year in Q2-20. Since then, oil output has fallen to a five-year low of 3.58 million barrels per day (mbpd) in August 2020 (Ahmad, 2020: 116).

A 20.7 percent drop in Q2-20 was recorded in the services sector, as a result of March 2020's lockdowns and curfews. As a result of this significant recession, the non-oil GDP decreased by 9.2 percent (y/y) in H1-20. It was discovered that by the time COVID-19 was completed in September 2020, the level of activity at working sites had decreased by around 20 percent. Even though COVID-19 instances have recently increased to over 400,000 confirmed cases in October 2020, the ongoing nature of the health catastrophe and need to focus on preserving lives in order to reduce its longer-term irreversible consequences is still evident. As a result of the two shocks, the government has few options for funding (Ahmad, 2020: 11).

Despite a 47.5 percent drop in government revenue in the first eight months of 2020 (8M-20), spending remained high at 21.8 percent of GDP due to a large percentage of the public pay bill and pensions. As a result of these budget restrictions, the government's financing requirements are anticipated to reach a staggering 25.8% of GDP by the end of 2020. For example, the government has eliminated discretionary expenditures on pro-growth programmes such as human capital development or public service delivery and has committed all available resources to meeting the government's responsibilities to pay salaries and pensions for its public sector workers. However, these efforts will be in vain since oil prices are expected to remain much below the breakeven price (US\$58/bbl) necessary to pay for these two major investments in the near future. Budgetary constraints have a negative influence on GDP and the ability of the Indian government to provide economic stimulus and mitigate the pandemic's impact. Higher financing demands will put pressure on the currency rate and central bank reserves, posing substantial problems for the country's macroeconomic balances (Al - Hade, 2020: 94).

. An improved outlook for oil markets and an increase in output as part of the OPEC agreement are likely to enhance growth in 2021-2022 if there are no substantial changes in the economy. If the health situation improves, the non-oil economy is expected to grow at an average pace of 4% in 2021–2022. So long as the

twin accounts remain negative, fiscal, and external pressures will persist. Structure reforms, long overdue, are now required owing to the severity and complexity of the economic challenges that have emerged in recent years. As a result of their detrimental impact on growth, the current cuts in public investment and pro-growth efforts are only temporary remedies to alleviate the fiscal crisis (Ahmad, 2020: 18).

As a result, they cannot serve as a substitute for long-overdue structural changes. Due to Iraq's current situation and a path for change, the Government of Iraq's White Paper may mark an important turning point in Iraq's history. Long overdue structural changes will result in considerable economic benefits. Those steps, according to the World Bank, may raise Iraq's per capita GDP by as much as 58,4%. Strong political will and popular backing are required to steer Iraq out of its long-term instabilities. Iraqi family hardship due to COVID-19 and low oil prices. A wide range of people in Iraq have been affected by the present security and economic challenges in different ways. Poverty decreased in 2012 after a period of relative calm but rose to a new high in 2014 as a result of the ISIS fight and the oil price shock, before decreasing somewhat in 2017/18 as the recovery began (Al - Hade, 2020: 57).

Instead of revealing major spatial and group disparities, national trends do just that. Contrary to popular belief, the divide between urban and rural poverty has decreased. There are large discrepancies between those affected and those who have not been relocated that lead to geographic inequities in most cases. In the North, where the vast majority of IDPs dwell, the poverty rate among displaced households is more than double that of non-displaced households (Ahmad, 2020: 41).

COVID-19's impact is likely to differ across the country because of these pre-existing vulnerability disparities. They will be exacerbated by the COVID-19 virus and the oil price shocks. As a result of the weakening economy and fewer remittances, families' labor and nonlabor earnings are expected to shrink. Households, especially those in the informal private sector, may lose the majority or all their income, pushing them to squander down any remaining resources and turn to negative coping strategies. As budgetary space becomes more constrained, food and public cash transfers may be impacted. In the absence of a substantial government reaction, these short-term effects, along with restricted access to

education, healthcare, and other services, will have long-term ramifications on households' economic growth, intergenerational mobility, and ability to overcome poverty (Ahmad, 2020: 36).

These negative repercussions, especially if they occur early in life, can be severe and long-lasting. They have the ability to significantly reduce a person's lifetime earnings, upward economic mobility, human capital accumulation, and health, as well as to pass on to future generations. Even in the best-case scenario, Iraqi poverty is likely to increase by 7 to 14 percentage points in the immediate terms. This indicates that 2.7 to 5.5 million Iraqis would become poor for the first time as a result of the twin crises, on top of the 6.9 million who were poor before the crises. With the epidemic spreading, the government is confronted with the tough challenge of containing the virus, protecting people's health, and reviving a sagging economy (Al - Hade, 2020: 65).

Furthermore, unless the rightsizing exercise is implemented in a gradual and efficient manner, lowering the public pay bill and pensions might force an extra 0.4 to 1.7 million Iraqis into poverty. Iraq's budgetary headroom was already limited, but the present problems have imposed even more restrictions on government expenditure. This has been the driving force behind the government's aim to reduce the size of the public pay bill. Depending on how the reform is executed, rightsizing the public sector might have a major influence on poverty.

This means that it is important to consider distributional impacts when identifying which public sector personnel may be affected. Measures such as wage reductions would aggravate poverty the most in the region and the Center because of the large number of public sector personnel. Households already struggling with poverty in the North and South would be pushed even farther into it. Immediate health and livelihood issues must be addressed, while a longer-term reform programme must address structural issues. Given the worsening of poverty trends, Iraq's government will need to provide an emergency fiscal stimulus to protect the poor and create short-term employment opportunities:

- Priority should be given to maintaining access to food and nutrition for those who are most vulnerable to the pandemic and expanding targeted social protection, such as providing temporary cash and in-kind assistance to those who

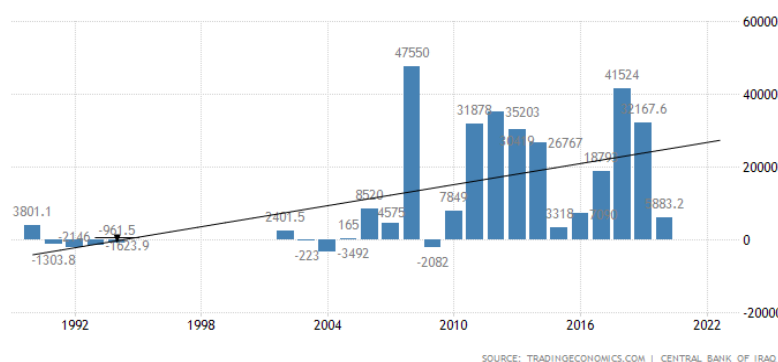
have lost their jobs or had their incomes reduced as a result of COVID-19. UCT (Unconditional Cash Transfer), a programme of the Ministry of Social Affairs that provides cash transfers to 1.35 million families, should be used to safeguard as many poor and vulnerable Iraqis as possible. While drawing on best practises throughout the world, the Indian government may also participate in active labor market policies and efforts to safeguard employment and increase the employability of job seekers. In addition to public works projects, they include private sector wage support programmes, on-the-job training, reskilling, and entrepreneurial activities (Al - Hade, 2020: 75).

- Because of low income and significant response costs, Iraq's budget will be severely strained during the recovery period. To ensure that reduced spending and any prospective tax base broadening have the least impact feasible on the poor and vulnerable, this consolidation process must be carried out. Another important step is to search for cost-saving possibilities and to set aside funds for pro-growth and pro-poor programmes, such as public investment in human capital and service delivery. The private sector in particular must undergo institutional changes in order to create more jobs.

3.3. Overview of International Trade (Import, Export) and GDP in Iraq between 1990 -2019

In order to understand the economic situation of Iraq through the period from 1990 to 2019, it would be good to look at general outlook of the country's foreign trade and GDP.

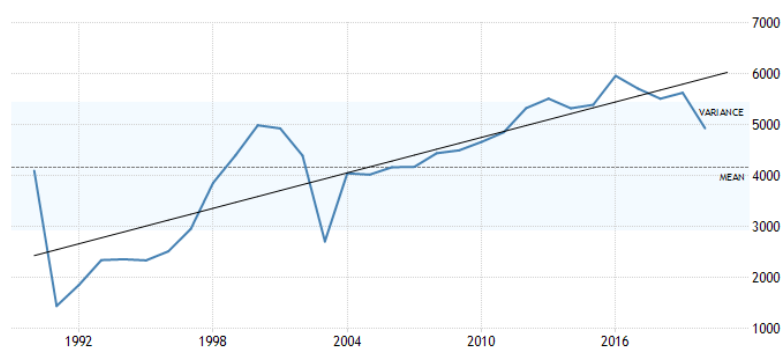
Figure 2. Balance of trade period 1990-2019 (Billion Dollars)



Source: Researcher Design (data from world bank)

Figure 2 provides an obvious view about balance of trade period line movement through the period 1990-2019 as we see from the figure 2 that Iraq's Balance of Trade averaged 11596.07 USD million from 1988 to 2020, reaching a high of 47550 USD million in 2008 and a low of -3492 USD million in 2004. Furthermore, due to increased oil production, Iraq has been generating trade surpluses since 2005 as we see in figure 2.

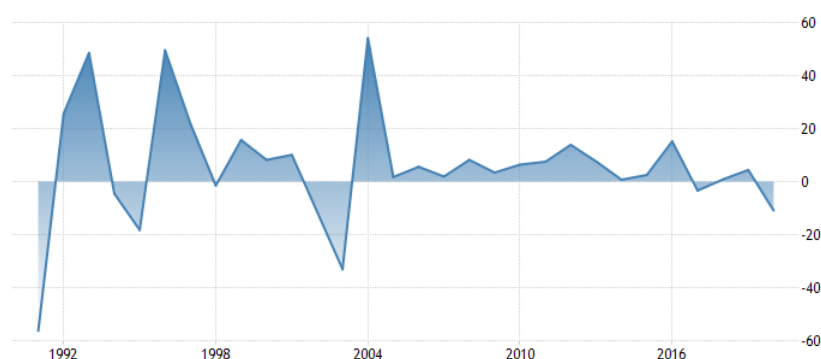
Figure 3. GDP per Capita



Source: Researcher Design (data from world bank)

After 1990, GDP per capita appears to have risen, as seen in figure 3. The GDP per capita is calculated by dividing the country's adjusted gross domestic product by the entire population. Its GDP per capita fluctuated between 1968 and 2020, reaching a high of 5957.60 USD in 2016 and to a low of 1432.17 in 1991. Trading Economics global macro models and experts predict that Iraq's GDP per capita will reach 5500.00 USD by the end of 2021. In 2022, our econometric models predict that Iraq's GDP per capita will be about 5900.00 USD.

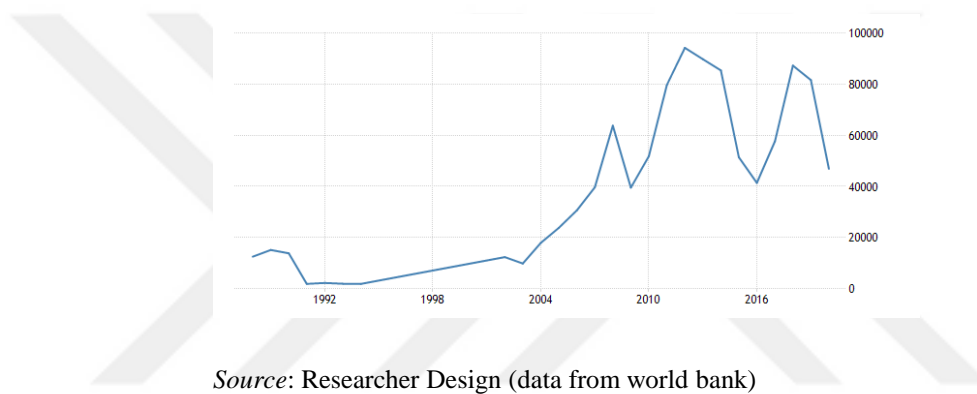
Figure 4. Iraq GDP Annual Growth Rate



Source: Researcher Design (data from world bank)

We can notice from the figure 4 that from the year 1991 to 2020, Iraq's GDP Annual Growth Rate averaged 6.40 percent, with a peak of 54.16 percent in 2004 and a low of -56.40 percent in 1991. A whopping 55% of Iraq's GDP is derived from oil. Thirty-three percent of overall production is accounted for by the services sector. Communal, social, and personal services make for 13 percent of the GDP. Finance, insurance, and real estate services contribute for 9 percent. Percentage (7%). Crops, hunting and fishing account for 4 percent of total wealth while manufacturing, construction and water and power generating account for 8 percent.

Figure 5. Exports of Iraq during the period 1990-2019, Billion Dollars.



Iraq is the seventh-largest oil producer and exporter in the world. Crude oil exports account for 99 percent of overall exports. The United States accounts for 25% of overall exports, followed by India (14%). As we see from the figure 5 the period between 1988 to 2020, Iraqi exports averaged 40454.17 USD million, with a peak of 94209 USD million in 2012 and a low of 1720.40 USD million in 1994.

Figure 6. Imports of Iraq during the period (1990 -2019), Billion Dollars.



We can notice from the figure 6 that the period from 1988 to 2020, Iraqi imports averaged 28858.10 USD million, with a peak of 59349 USD million in 2013 and a low of 2681.90 USD million in 1994. Machinery and transport equipment (38 percent of total imports), manufactured items (27 percent), mineral fuels (10 percent), and chemicals and associated products (ten percent) are Iraq's primary imports (7 percent).



CHAPTER FOUR

EMPIRICAL SPECIFICATION AND METHODOLOGY

4.1. Data Specification

This study takes in the consider time series analyses method using annual data about gross domestic product (GDP), labor, capital, and terms of trade in Iraq covering period from 1990 to 2019 and consider the availability of used data. The used data in this study are collected from the following sources: World bank data and Iraq economic statistics. The data for gross domestic product (GDP) are taken per capita in US dollars. The capital taken for capital is gross fixed capital formation because of non-availability of capital stock data. The gross fixed capital formation data are US dollars. The data for labor force are in terms of percentage of total population.

4.2. Empirical Strategy

The main aim of this thesis is to configure the relationship between TOT and economic growth (GDP) regarding capital and labor. In other words, following Jawaid and Raza (2015), this thesis also considers GDP as a function of capital, labor and terms of trade (TOT). The production function can be written as follows:

First equation: $GDP_t = f(CAP, LAB, TOT)$

In equation 1, gross domestic product represented by GDP, capital represented by CAP, labor force represented by LAB and terms of trade represented by TOT. Equation 1 can be converted into regression model as follows:

Second equation: $GDP_t = \alpha_0 + \alpha_1 CAP_t + \alpha_2 LAB_t + \alpha_3 TOT_t + \varepsilon_t$

where GDP is the log of gross domestic product, CAP is gross fixed capital formation, LAB is labor force, TOT is the terms of trade and ε_t is error terms.

The expected sign of coefficient α_1 capital stock and α_2 labor force is expected to be positive while expected sign of coefficient α_3 terms of trade (TOT) is to be obtained from the results.

In this thesis the used variables are derived from Jawaid and Raza (2015) and Jebran et al. (2018).

The long-run relationship between gross domestic product and terms of trade mostly analyzed by using traditional cointegration analyses and short-run effect has analyzed by using vector error correction model. This thesis uses ARDL model bound testing approach proposed by Pesaran, Shin and Smith (2001) for the goal of analyzing long-run relationship between GDP and TOT regarding labor and capital as inputs of production equation. The ARDL model has been chosen in this study because this model of analyzing variable has many advantages over traditional cointegration model and these advantages are:

ARDL model can be applied on models where variables included in the equations are stationary at different levels where traditional cointegration is not suitable to apply.

- We can also apply ARDL model for small sample size while cointegration model is suitable for relatively large sample size.
- When the sample of the study is relatively small because of that we selected ARDL model in this study.

Equation 2 is converted into ARDL long-run and short-run models. Equation 3 represents the long-run ARDL model while equation 4 represents the short-run ARDL model that is applied for the purpose of analyzing short- and long-run relationship between terms of trade (TOT) and economic growth (GDP).

ARDL Long-Run Equation

$$\text{Equation 3: } \Delta \text{GDP}_t = \xi_0 + \xi_1 \text{GDP}_{t-1} + \xi_2 \text{CAP}_{t-1} + \xi_3 \text{LAB}_{t-1} + \xi_4 \text{TOT}_{t-1} + \varepsilon_t$$

The used parameters in equation 3 are ξ_1 , ξ_2 , ξ_3 and ξ_4 , and they represent long-run coefficients, while long-run coefficients.

ARDL Short-Run Equation

$$\Delta \text{Equation 4: } \text{GDP} = Y_0 + Y_1 \sum \Delta \text{GDP}_{t-1} + Y_2 \sum \Delta \text{CAP}_{t-1} + Y_3 \sum \Delta \text{LAB}_{t-1} + Y_4 \sum \Delta \text{TOT}_{t-1} + \phi \text{EC}_{t-1} + \varepsilon_t$$

The used parameters in equation four $\Upsilon_i, \Upsilon_j, \Upsilon_k$ and Υ_l and they represent long-run coefficients, while short-run coefficients. φ represents the coefficient of error correction terms that measures the speed of adjustments towards the long run and ε_t is disturbance terms.

This thesis has taken time series data for analyses the relationship between gross domestic product (GDP) and terms of trade (TOT) regarding capital and labor , so the preliminary analyses involve checking time series data for stationary. The stationary is usually checked by using unit root analyses. The unit root analyses are carried out by two commonly used methods: Phillips and Perron (PP) (1988) test and Augmented Dickey and Fuller (ADF) (1979) test.

This particular study has used Dickey and Fuller (ADF) (1979) test for checking stationary of the data.

4.3. Empirical Results

4.3.1. Unit Roots Results

First, we have analyzed stationary of the variables by applying Dickey-Fuller test for unit root. the results presented in Table 1 of unit root analyses. The results of ADF indicate that all variables show non-stationary at level, while became stationary at first difference.

Table 1. Dickey-Fuller test for unit root

Variable	Level	First diff	Inference
GDP	-2.166	-4.403	<i>I</i> (1)
LAB	-1.682	-4.711	<i>I</i> (1)
CAP	-1.986	-7.795	<i>I</i> (1)
TOT	-2.113	-4.956	<i>I</i> (1)

Notes: Critical values at 1, 5 and 10 per cent are -3.723, -2.989 and -2.625. ***, ** and* represent significance at 1, 5 and 10 percent.

4.3.2. Multicollinearity and Heteroscedasticity Test

The results of the multicollinearity test are presented in the following tables:

Table 2. Matrix of Correlation for the Regression

	LAB	CAP	TOT	GDP
LAB	1.0000			
CAP	-0.0719	1.0000		
TOT	0.0265	-0.0513	1.0000	
GDP	0.143	0.123	-0.2241	1.0000

When the explanatory variables are almost linearly dependent, this is known as multicollinearity. Tables 2 show that the correlation among (TOT) and (GDP) is 0.2241. From the other side, many scholars prefer a definite quantity greater than 0.8 to create multicollinearity (Studenmund, 2011). We infer that there is no concern of multicollinearity among our variables because -0.2241 is so far away from 0.8.

Table .3. Cameron & Trivedi's decomposition of IM-test

Source	Chi2	df	p-value
Heteroskedasticity	85.23	5	0.0001
Skewness	12.34	3	0.0000
Kurtosis	1.45	1	0.0000
Total	99.02	9	0.0000

White's test for Ho: homoskedasticity

against Ha: unrestricted heteroskedasticity

$$\text{chi2}(5) = 85.23$$

$$\text{Prob} > \text{chi2} = 0.0001$$

After the multicollinearity test, we did a White test for heteroscedasticity. The period heteroscedasticity relates to whether the residuals' variance is homogenous or not. It's still additional requirement for doing OLS regression. The results reveal that the Chi value is higher than the critical value, suggesting that the homoscedasticity hypothesis may be rejected. We utilized the most generally used approach, heteroscedasticity-corrected standard error, to regulate the estimation of SE () for heteroscedasticity. The goal is to employ a more accurate estimate of SE (), which is

supported by the fact that heteroscedasticity has no impact on. We will provide our findings, as well as a therapy for heteroscedasticity, in the next section.

4.3.3. Lag Order Selection

The next step is to choose an appropriate lag value for verifying the long-run and short-run associations using the ARDL model. The VAR statistics is frequently used to determine an appropriate lag value. On the basis of the Schwartz criterion, this study chose the appropriate lag value. The VAR statistics results are displayed in the table below. At lag 1, the Schwartz criteria reveals a minimal value. The other facts also lead to lag 1 being chosen. The results show that lag 1 is the best lag number for testing the long- and short-run relationships in our ARDL model.

The optimal lag length of the VAR underlying the VECM is selected. Akaike's information criterion (AIC), Schwarz's Bayesian information criterion (SBIC), and the Hannan and Quinn information criterion (HQIC) lag-order selection statistics. From the Table 2 below, it reports lag-order selection statistics. The result shows lags order at two. This indicates that the recommended optimal lag is lag1.

4.3.4. Model Estimation

The model was predicted using the (OLS) way within the software of the autoregressive distributed lag method (ARDL model), as well as the (EViews) program to calculate the best of the model delays.

Table 4. ARDL model's estimation of the linear regression equation.

Tot	Cap	Lab	GDP	Statement / Variables
1	1	2	1	The best number of delays selected

It is obvious from the above table that the number of models of delays that the program tested is (6200) tests, as it is clear from the table that the best model of delays that were chosen is with the number of delays (1) for the dependent variable (GDP rate), and (2) for the rate of change in the volume of lab and (1) for rate of change in the volume of capital and (1) for rate of change in tot, as the test was done here based on the results of the (AIC). Akaike info criterion test, and it is clear from the table that the number of models is (14) due to the delays that the model took it.

4.3.5. Testing the Possibility of Correcting Errors in the Long Period (β)

This test was performed to clarify how to correct short-period errors during in the long-period, and the portion of short-period errors that will be discussed during the long-period per unit time to get back to the equilibrium point, and the show results have been obtained in this table after performing the experiments on the (STATA) statistical program.

Table 5. Significant Test Results and Correction Coefficient Indication β

P-value	t-test	standard error	parameter value	error correction parameter
0.0001	9.234	0.0352	-0.3221	β
				independent variables
0.0001	-4.5435	87.43	1.553	CAP
0.0000	-8.7887	0.1876	0.673	LAP
0.0000	11.189	0.0002	0.0032	TOT
0.0000	22.874	0.7976	1.842	a_0
First equation: $GDP_t = f(CAP, LAB, TOT)$				
$GDP = 1.842 + 1.553 (CAP) + 0.673 (LAP) + 0.0032 (TOT)$				

The value of the error correction parameter is (-0.3221) with a negative sign, and it is significant in period s of its probability of (p-value= 0.0001), which is less than the level of significance (five percent), so the conditions for the error correction parameter are met, and there is a possibility to correct short-period errors over a long period and return to the equilibrium position. Table No. (4) shows that the value of the marginal slope of the rate of change in GDP reached (1.842), , and in relation to the rate of capital stock (1.553), labor (0.673) and terms of trade (0.0032) , As for the volume of capital stock rate (1.553), this result is positive, and therefore, where the rate of GDP has a direct (positive) relationship with the rate of change in the volume of capital stock, labor, and terms of trade that is, the greater the rate of change in the volume of capital stock, labor, and terms of trade, by one unit this led to an increase in the rate of GDP . There is a statistically significant relationship between the ratio of capital stock, labor, and terms of trade, and GDP in the short period.

4.3.6. Examination of the Existence of a Long-Period Relationship in the Estimated Model

This test will determine if there is a long-period relationship moving steadily from the independent factors indicated in the rates of financial intermediation to the rate of gross national product (GDP), as well as judging the approximate model's predictive power in the long and short term and determining the estimated model's significance. The Bonds Test is utilized as a whole within the (STATA) application, and the results are presented in the table below after the testing procedure.

Table 6. Wald Test to Examine the Existence of a Long-Period Relationship

Critical Values		F-Test Statistic	The number of independent variables K
H ₀	H ₁		
1.67	1.96	2.13	3

Table 7.F-Statistic test results R²

R ² value	p-value	F
.0808	0.0000	34.213

Source: Researcher Design

Because the computed value of (F-Statistics) reached (4.440) when the number of independent variables in the proposed model reached (3), which is more than the tabulated values of (the upper bound H₁) of (1.96) and (the lower bound H₀) of (1.67), the null hypothesis for this test was rejected (GDP).

The F-statistics value, which reached 34.213 and with a probability of (P-value equal 0.0000), represents the significance of the estimated model at the level of 5.

As can be seen from the table above, the corrected coefficient of R² was (0.808), implying that variations in the independent variables (capital stock, labor, and terms of trade) account for about (80%) of the changes in the dependent variable (the rate of

GDP). The remaining 20% that was not explained by the result was attributable to additional factors not included in the estimated model.

4.3.7. Long-Run Equation Results

The next stage is to use the ARDL model to examine the long-run impacts of capital, labor, and TOT on economic growth. Table 3 shows the estimated outcomes of the ARDL equation over time. The long-run equation's results demonstrate that all the variables, including TOT, capital, and labor force, have statistically significant effects on Iraq's economic development. In the long run, the labor force and capital have a positive impact on economic growth. The labor force and capital are both showing signs of improvement, as predicted. These results tallies with previous studies such as Jebran et al (2018), Kaneko (2000), Cakir (2009), Jawaid and Raza (2013), and Jawaid and Waheed (2011). Labor force is proven to be a major predictor of Iraq's economic growth in the long run. The TOT coefficient is negative in the long run and has a negative impact on economic growth. According to the TOT coefficient, a 1% rise in TOT reduces Iraq's economic development by 14.7 percent. Previous research (Jebran et al, (2018), Jawaid, and Raza, (2013), Wong, 2010) has found that TOT has a negative impact on economic growth.

Table 8. Long-Run ARDL (1,0,0,0) Results

Variable	coefficient	Standard error	t-statistics
TOT	-0.47546	0.1.3687	-1.09*
LAB	0.10544	0.11509	0.92***
CAP	-0.518136	0.46841	1.11***
C	-4.78671	0.37075	-2.12

Notes: Dependent variable = GDP. ***, **, and * represent significance at 1%, 5%, and 10%, respectively.

4.3.8. Short-Run Equation Results

The ARDL short-run equation results are reported in Table 9 below.

Table 9. Short-Run ARDL (1,0,0,0) Results

Variable	coefficient	Standard error	t-statistics
ΔGDP (-1)	-0.236049	0.12296	1.92***
ΔTOT	-0.602712	0.20563	-0.29**
ΔLAB	-0.198569	0.84876	2.34***
ΔCAP	-0.112897	0.53420	0.21***
C	1.337813	0.28241	-1.20
ECT (-1)	-0.28426	0.08852	-3.2111***

Notes: Dependent variable = GDP.***, **, and * represent significance at 1%, 5%, and 10%, respectively.

Over the course of a year, roughly 28.4% of the disequilibrium is corrected. The findings show that capital stock and labor have little effect on economic growth in the near run. The findings also suggest that TOT has a detrimental impact on economic growth in the short terms.

The robustness of ARDL short-run and long-run models is tested using the CUSUM and CUSUMQ tests on the model's recursive residuals. The CUSUM and CUSUMQ tests results are shown in Figures 7 and 8 below. Figure 7 clearly shows that the band is less than 5% significant in the cumulative sum test.

Figure 7. CUSUM Test

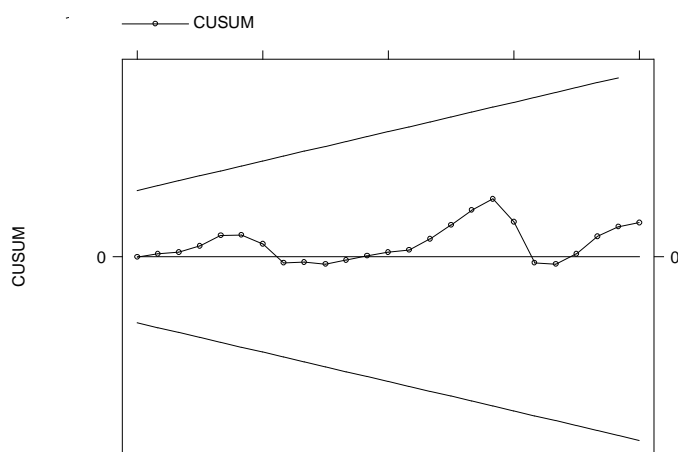
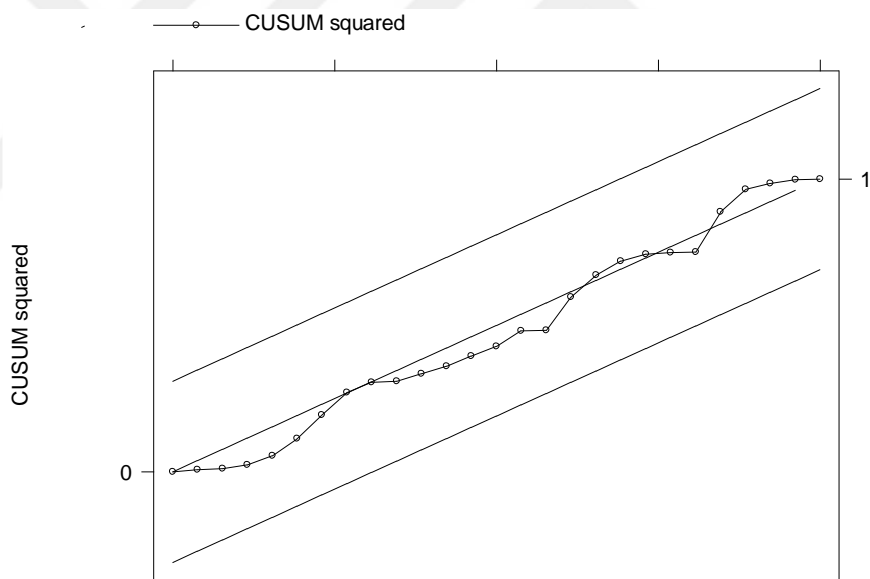


Figure 8 shows that the cumulative sum of square (CUSUMSQ) sits between the bands and is significant at the 5% level, indicating that the ARDL model is fit.

Figure 8. CUSUMSQ Test



CONCLUSION AND DISCUSSION

Changes in trade terms have a considerable beneficial influence on economic growth, according to empirical study on the drivers of economic growth (Barro and Sala-i-Martin, 1997). Theoretical Growth models, on the other hand, have failed to capture this connection. Changes in terms of trade, according to Barro (1997), should not influence real GDP growth unless they increase employment. This study looked at the long- and short-run effects of TOT on Iraq's economic growth from 1990 to 2019, considering the two variables that make up the production equation (labor and capital). The ARDL model was used to investigate long- and short-terms associations.

The empirical findings demonstrate that labor has a beneficial impact on economic growth both in the short and long run. Capital, like labor, has a substantial long-terms and short-terms positive impact on economic growth. The findings reveal that TOT has statistically significant detrimental long- and short-terms effects on Iraqi economic growth. The negative effect of TOT can be explained by the fact that the import price of products is generally greater than the export price, or that the rate of increase in the import price is generally higher than the rate of growth in the export price.

This study indicates that economic strategies should be designed around TOT because it is also a predictor of economic growth. The drop in TOT might have a big influence on Iraq's economic growth. Economic officials can also evaluate if a certain form of TOT, such as exports or imports, is causing Iraq's economic growth to suffer in the short and long run.

In Pakistan, Jebran et al. (2018) looked into the link between GDP and TOT in terms of capital and labor. Their findings were comparable to ours, with the exception that there was no significant association between capital and GDP. Bleaney and Greenaway (2001) reach the same findings using a panel of 14 Sub-Saharan African countries. Growth and investment both rise when terms of trade improve, but terms of trade instability have a negative influence on both. One group of experts predicts a favorable relationship between trade terms and income growth. Singer's observation that increases in the terms of trade can provide surpluses for long-terms capital accumulation was mentioned above. This perspective appears to be supported by the empirical research examined (Bleaney and Greenway 2001; Mendoza 1997).

Recommendations

The main aim of the study was to configure out the impact of the terms of trade on the economic growth (GDP) in Iraq with taking on the consider capital stock and labor force as independent factors between 1990 and 2019. To investigate the interrelationship among the variables.

The results of our study showed that labor and capital factors have a positive impact on economic growth both in the short and long run. The findings also reveal that TOT has statistically significant, negative long- and short-terms effects on Iraqi economic growth.

This thesis suggests that economic policies would be made regarding terms of trade because it is also a determinant of economic growth. The deterioration in terms of trade may be relatively important for economic growth of Iraq. The economic policy makers may also identify that category of terms of trade, that is, exports or imports that is causing economic growth of Iraq to deteriorate in short and long run as well. Besides in our study we found a positive strong impact of both labor and capital on the economic growth so we suggest that the government of Iraq should focus on developing the quality and the quantity of the human resources in Iraq and should focus on investing the capital in essential enterprises in Iraq which the country most needed.

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