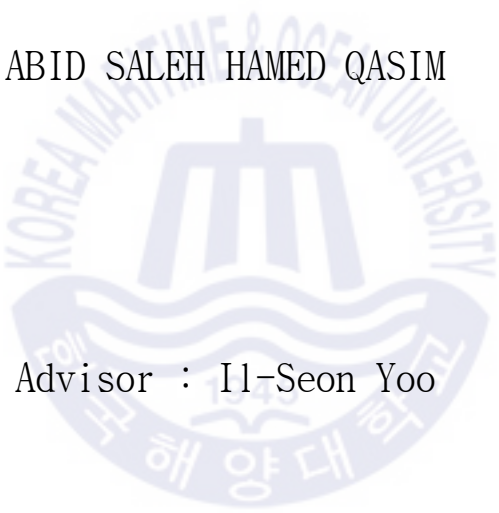
Thesis for the Degree of Doctor of Philosophy

United States-South Korea Free Trade Agreement and Its Economic and Social Welfare Effects (2012-2018)

ABID SALEH HAMED QASIM



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United States-South Korea Free Trade Agreement and Its Economic and Social Welfare Effects (2012-2018)

By

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I would like to thank my teacher and supervisor for the gratitude of supporting me during my long journey. I accomplished this scientific effort with the help of my supervisor. I value and respect Professor Yoo, Il Seon who was the Dean of the Faculty of Economics at the University of Korea Maritime and Ocean University. His efforts allowed me to purse my goals and helped me move forward with my studies. I would also like to thank the people of the committee for the discussion of the letter especially those who helped me complete this scientific work. With the hard work, I strongly wish that this research is beneficial to people. In conclusion, I hope this scientific research will serve my country and the world

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한미 자유무역협정과 사회후생효과(2012-2018)

ABID SALEH HAMED QASEM

한국해양대학교 대학원

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국문초록

이 논문은 2012-2018년 기간 동안 한국과 미국간 FTA와 사회후생측면에서 그 의미를 다루고 있다. 이 연구는 한국과 미국간 FTA 체결로 인해 발생하는 두 가지 경제적 의미, 즉 관세인하 및 철폐정책에 의한 직접적인 편익과 비관세장벽완화 및 철폐에 의한 편익을 분석하는데 그 목적이 있다. 주요 변수로는 GDP, 1인당 GDP와 정부지출 등 사용되었으며 이것들이 사회후생에 어떻게 영향을 미치는지를 기술하였다. 분석방법은 문헌적 방법과 통계적 방법을 필요에 따라 병행하여 상용하였다. 통계분석을 위해 SPSS 시스템을 사용하였고, Gini계수도 활용하였다. .

연구결과는 다음과 같다.

1. 한국의 사회후생과 한미간 FTA 사이에는 양(+)의 상관관계가 존재한다. 즉 한미 FTA는 한국 사회후생 증진에 기여했다

2. 한미FTA로 관세장벽이 낮아져 미국으로 수출이 증가되고 이것이 GDP를 상승시켜 한국의 후생이 증가하였다.

3. 관세와 국제수지는 서로 음(-)의 상관관계가 존재한다. 관세가 낮을 수록 한국의 국제수지가 개선되어 한국 후생이 증가하였다

4. 한미FTA체결 후 한미간 투자가 증가되었다.

5. 투자와 GDP간 강한 양의 상관관계를 나타내었다. 그 수준은 90.3%수준으로 투자 1단위 증가는 GDP의 0.9의 증가를 가져왔다. 이것은 한국 사회후생 증가에 기여했다

6. 정부와 GDP 간 강한 상관관계가 존재한다. GDP가 높을수록 정부지출도 증가한 것을 보여주었다. 정부지출은 사회후생 증가에 기여하였다.

7. GDP 와 민간소비지출과 약한 양의 상관관계가 존재하였다. GDP 가 높을수록 민간소비지출은 증가하였다.

8. 지니계수(Gini coefficient)와 공공지출간에는 강한 상관관계가 존재하였다.

9. 지니계수와 저축 사이에는 양의 상관관계가 존재하였다.

10. 지니계수와 소비 사이에는 양의 상관관계가 존재하였다.

FTA는 국가간 무역장벽을 제거하여 재화와 서비스 무역을 원활히 하여 경제효율을 증가시킨다. 이런 점에서 한미간 FTA 는 적절한 시점에서 체결된 협정으로 한국의 사회후생증진에 기여했다. 이런 한국의 FTA모델은 개발도상국의 경제성장에 도움이 될 것으로 판단된다. 즉 한국의 정부지출이 무역관련기업에 직접 지원하는 것이 아니고 민간부분의 고용창출과 기술개발 등에 지원하여 경제성장을 이룩하고 생활수준을 향상시켜 사회후생을 증진했기 때문이다. 한가지 부언할 것은 FTA이후 미국농산물의 수입으로 한국 농업부문의 타격이 심해 정부지원을 통해 경쟁력을 높이는 방안을 강구해야 할 것이다.

키워드: 자유무역협정(FTA), 사회후생효과, 관세, 지니계수, 국내총생산(GDP)

United States-South Korea Free Trade Agreement and Its Economic and Social Welfare Effects (2012-2018)

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Abstract

This research addressed the U.S.-South Korea Free Trade Agreement and its implications for economic and social well-being during the 2012-2018 period. The study aims to assess the economic implications of the FTA with all these considerations in the U.S.-South Korea Free Trade Agreement. The study aims to provide two economic implications, the direct benefits of the U.S.-Korea Free Trade Agreement which summarized, including the benefits of tariff reduction or removal policies, as well as the benefits of reducing or eliminating non-tariff barriers. Secondly, a methodology was provided to analyze the implications of increased gross income and GDP, and how this was reflected in Korean per capita income and increased government spending on the various service sectors of the country, with its impact on welfare. The researcher used the descriptive analytical method as a method used to study social and human phenomena since it is suitable for the phenomenon in question. Secondary sources were used to collect information, such as books, reports, specialized scientific journals, published papers and websites. Thus, illustrative tables were used to illustrate economic indicators. The SPSS system was used for statistical analysis and the Gini coefficient was adopted.

The study concluded the following results:

1. There is a positive relationship between the Free Trade Agreement between the United States and the high level of economic and social well-being of the South Korean citizen.

2. There is a strong correlation between tariffs and GDP, as there has been a reduction in tariffs on most commodities exported to the United States from Korea, resulting in an increase in GDP, which in turn has been reflected in South Korea's economic well-being.

3. There is an average negative correlation between tariffs and the trade balance, where it has been shown that the lower the tariff, the higher the trade balance, which in turn has been reflected in South Korea's economic well-being.

4. It turns out that Korean and U.S. investment increased after the agreement between the two countries was amended.

5. There is a strong correlation between investment and GDP, and the regression factor (903), where it was found that there is a direct correlation between investment and GDP largely. The strength of the relationship is about 90.3%, and the coefficient of the relationship between investment and GDP (1,397) has led to a rise in GDP, which in turn has been reflected in South Korea's economic well-being.

6. There is a strong direct correlation between GDP and government spending which has been shown that the higher GDP, the higher government spending, which in turn is reflected in South Korea's economic prosperity.

7. There is a moderate direct relationship between GDP and general consumer spending showing that the higher GDP, the greater the public consumption spending.

8. There is a strong correlation between the Gini coefficient and public social spending which has been shown that the lower public spending, i.e. near zero, which in turn has been reflected in South Korea's economic well-being.

9. There is an average correlation between Gini coefficient and savings, and regression coefficient = 57.7%. Durban Watson = 1.374, which indicates a positive relationship between the Gini coefficient and savings.

10. There is an average correlation between Gini coefficient and consumption, and regression coefficient = 68.1%. Durban Watson coefficient = 1.465 indicating a positive relationship between Gini coefficient and individual consumption.

Keyword: FTA, Social Welfare Effect, Tariff, Gini Coefficient, GDP

Ch.1 Introduction

Free trade agreements (FTAs) have emerged as a form of integration into the global economy and one of the means of the present century in interstate cooperation after traditional and individual agreements have prevailed in international economic transactions. Free trade agreements replaced traditional conventions after the global trend towards trade liberalization. The opening up of global markets, creation of international, regional blocks, and the adoption of collective image or major entities in business transactions.[1]

The FTA is defined as an image of a two-state conglomeration aimed at liberalizing trade between them by removing all customs and non-tariff restrictions on trade in goods and services in order to increase trade volume, raise economic growth rates and increase economic cooperation among countries.

The U.S.-South Korea Free Trade Agreement (KORUS FTA) entered into force on March 15, 2012. The most important thing of the agreement is the free movement of goods, services and intellectual property from all customs, procedural restrictions and the diversity of the economies of member states.[2]
Korea has become an important trading partner for the United States with Korea as its seventh trading partner. The fifth largest market for agricultural products, the second largest market for US services in Asia, and its 10th in information technology products.[3]

The Effects of liberalization of trade barriers by Korea and the United States is shown to increase Korea's economic welfare by $9.28 billion (1.26 percent of GDP) with $4.48 billion coming from the bilateral removal of manufacture barriers and $5.46 billion from bilateral removal of the services barriers. U.S. economic welfare is increased by $25.12 billion (0.14 percent of GDP), with $7.27

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[1]Fugazza, M., Maur, J. (2008), "Non-tariff barriers in CGE models: How useful for policy", ***Journal of Policy Modeling*** , 2008, (30), pp. 475–490.

[2] Whalley J., (2014), *Korea and the Trans-Pacific Partnership: A Numerical Simulation Assessment of the Effects Involved*, The World Economy.

[3] Park, Y.S., (2011), ***The Impact of the U.S.-Korea Free Trade Agreement on Both Economies***, George Washington University.

billion coming from elimination of manufactures tariffs and $19.20 billion from elimination of services barriers.[4] (Wei, et al, 2018) in the study of the impacts of tariff reductions in the Economic Welfare (EW) indicates that the US-Korea FTA generates a divergence of outcomes, welfare gains are estimated to be $368 billion, and GDP gains are estimated to be $45 billion[5].

The objective of this study is to verify the economic impacts of the United States-South Korea Free Trade Agreement. Our paper advances the literature on the US-Korea FTA by analyzing both standard welfare measures and broader economic indicators, and by utilizing the most detailed commodity data available. In addition, we will present the macroeconomic impacts in terms of indicators (GDP, gross output, imports, trade balance, expenditures, savings and investment, GNI, consumptions).

Several studies have analyzed the US-Korea FTA in anticipation of an agreement, but none since it was implemented. These include studies by Cheong and Wang (1999), McDaniel and Fox (2001), Choi and Schott (2001, 2004), Lee and Lee (2005), Schott, et al (2006), and Wei, et al, (2018) which all use various forms of CGE models but primarily the GTAP Model.

1.1 Research Background

1.1.1 FTA

Free trade agreements have emerged as a form of integration in the global economy and one of the means of this century in cooperation between countries after traditional and individual agreements prevailed in international economic dealings. FTAs have replaced traditional agreements after the global trend towards trade liberalization, opening up global markets, the creation of international and

[4] Stern and Kiyota, K., (2007), ***Economic Effects of a Korea-U.S. Free Trade Agreement,*** Korea Economic Institute of America

[5] Wei, D., (2018), ***Estimating Economic Impacts of the U.S.-South Korea Free Trade Agreement***, University of South8ern California.

regional blocs, and the adoption of the collective image or major entities in trade dealings.

The Free Trade Agreement (FTA) is defined as a form of alliance between two or more countries. It aims to liberalize trade between them by removing all customs and non-tariff restrictions on trade in goods and services in order to increase the volume of trade exchange, raise economic growth rates, increase and enhance economic cooperation between signatory countries. These agreements are in many areas.

Free trade agreements (FTAs) are comprehensive and high-level agreements that address important issues such as transparency in the exchange of information and trade data, the rule of law, and the fight against corruption and the protection of intellectual property. These agreements also support economic reform efforts, and represent the final step in a series of steps towards opening the markets of the countries concerned.

Today, most countries have signed free trade agreements with the aim of building conglomerates through which they can cope with global economic changes. The global trend towards trade alliances and building trade partnerships aimed at confronting other alliances, strengthening cooperation, and expanding its fields between two countries or a group of countries.

The importance of free trade agreements is that they respond to new regional and global changes, which aim to increase competition between markets and establish the principles of open economies and economic blocs, which is recognized that no single country no matter how powerful can live in isolation from the events taking place.

Economic studies have shown that these agreements have resulted in a significant increase in the productivity of the elements of production, the volume of investment and intra-regional trade. The diversification of economic activity and increase the rate of growth of national income have a positive impact on the volume of trade and welfare.

1.1.2 Expected benefits from FTAs

Free trade agreements have many benefits that countries aim to obtain through the signing of such agreements. By examining some FTAs, it became clear that the volume of trade between the countries that signed FTAs had doubled at a substantial rate, production doubled, and the reduction or elimination of tariffs imposed by countries led to the flow of goods and services. Opening markets to exports has contributed to increased economic growth and improved balance of payments as trade flows will focus on price and service quality. This should benefit consumers by having more choice and lower prices through increased competition.

Free trade agreements (FTAs) are a means to reach larger goals. These goals or objectives are to form stronger clusters, and are only a first step followed by other steps to reach a more comprehensive agreement. Namely the custom union or the common market as it did. GCC countries or European countries that have reached the stage of common market is the ultimate goal and end of free trade agreements.

Thus, free trade means creating more business opportunities and efficient use of natural resources. Therefore, trade liberalization brings many benefits to the economy, which must employed for regional development goals where economic growth through trade liberalization is the main factor in improving the conditions of social life in addition to contributing to sustainable development.[6]

1.1.3 U.S.-Korea Trade Facts

U.S. goods and services trade with Korea totaled an estimated $154.8 billion in 2017. Exports were $72.5 billion; imports were $82.3 billion. The U.S. goods and services trade deficit with Korea was $9.8 billion in 2017. Korea is currently our sixth largest goods trading partner with $119.8 billion in total (two-way) goods trade during 2017. Goods exports totaled $48.3 billion; goods imports totaled $71.4 billion. The U.S. goods trade deficit with Korea was $23.1 billion in 2017. Trade in services with Korea (exports and imports) totaled an estimated

[6] Wei, D., (2018), ***Estimating Economic Impacts of the U.S.-South Korea Free Trade Agreement***, University of South8ern California.

$35.0 billion in 2017. Services exports were $24.2 billion and services imports were $10.9 billion. The U.S. services trade surplus with Korea was $13.3 billion in 2017.

1.2 Objective of the Study

1. To determine the effect of the impact of a free trade agreement in terms of both tariff reduction/elimination and the removal of other non-tariff trade barriers.
2. To determine the effect of the impacts a free trade agreement in terms of welfare effects such as allocation, commodity terms of trade, and investment-savings terms of trade effects.
3. To determine the effect of the effect of FTA on national economic indicators such as GDP, gross output and imports.
4. To determine the effect of the effect import tariff by commodity type before and after the establishment of the FTA.
5. Measuring economic indicators and their impact on economic well-being.

In this study, we evaluate the economic implications of a free trade agreement with all these considerations of the U.S.-South Korea Free Trade Agreement (U.S.-Korea Free Trade Agreement). Specifically, our assessment done in two steps.

A: The direct benefits of the U.S.-Korea Free Trade Agreement summarized, including the benefits of tariff reduction or elimination policies as well as the benefits of reducing or removing non-tariff barriers.

B: We present a methodology for analyzing the implications of increasing gross income and GDP and how this has been reflected in Korean per capita income and increasing government spending on the various service sectors in the country, and its impact on well-being. Our literature on the U.S.-Korea Free Trade Agreement is advanced by analyzing both welfare and broader economic indicator measures, and using more detailed data for the variables identified in this study.

1.3 Structure of the Study

The study was divided into four chapters on the theme of the study, which is the effects of the South Korea-US Free Trade Agreement on Korea's welfare. The first chapter contains the structure of the study, the problem, the objectives, and the hypotheses. The second chapter deals with the nature of the convention at the global level. The third chapter presents the elements of the convention and works on a comparison before and after the conclusion of this agreement between the two countries. The fourth chapter deals with the analysis of statistics and the presentation of results and recommendations.

1.4 Problem of the Study

The free trade agreements have many benefits that countries aim to obtain through the signing of such agreements. The most important of these benefits is the removal of barriers to trade between the members of agreement since trade liberalization will stimulate a state of economic prosperity at the national and individual levels for Member States.

A study of some free trade agreements showed that the volume of trade among countries that signed free trade agreements (FTAs) doubled significantly, production doubled and the reduction or elimination of tariffs imposed by countries that led to the flow of goods, services and markets, which have contributed to increasing economic growth rates and improved balance of payments. The trade flow will focus on price and service quality, and this should benefit consumers with a wider range of choice and lower prices through increased competition.

The United States and South Korea reached an agreement on the implementation of free trade agreements (FTAs) between the two countries, which aim to remove tariffs and other barriers to the expansion of trade between the two countries.

The US-Korea Free Trade Agreement was signed in 2007 entering into force in 2012. During his campaign, Trump promised to review a number of free trade agreements from various countries, including the FTA with South Korea. US

relations with its main trading partners have been strained after Trump's imposition of customs duties on exports from some countries, such as China, Canada and European countries. In 2018, a new free trade agreement has been signed between the two countries.

Therefore, this study will examine the impact of political changes on free trade agreements, in terms of customs duties before the signing of free trade agreement and compare the changes that occurred in the economies of the two countries after the free trade agreement.

This study comes to answer the following questions:

1. What are the impacts of a free trade agreement in terms of both tariff reduction/elimination and the removal of other non-tariff trade barriers?
2. What are the impacts a free trade agreement in terms of welfare effects such as allocation, commodity terms of trade, and investment-savings terms of trade effects).
3. What is the effect of FTA on national economic indicators such as GDP, gross output and imports?
4. What is the effect import tariff by commodity type before and after the establishment of the FTA?
5. What is the latest elasticities of substitution between imports and domestically produced goods of the same type?
6. How has it affected the free trade agreement between Korea and the United States on national income growth of the Korean citizen and thus the extent of reflection on the well-being?

1.4.1 Hypotheses of the Study

1- There are economic effects on welfare resulting from reducing or eliminating customs tariffs according to the free trade agreement between the two countries.

2- South Korea's adoption of the free market economies system in parallel with the balanced role of the state in economic activity through its conclusion of a free trade agreement with the United States that had an active role in achieving social welfare.
3- The free trade agreement between the two countries positively affected the domestic product of South Korea, which was reflected in social welfare.
4- The rise in the gross national product had a role in social welfare after the signing of the trade agreement.
5- The Free Trade Agreement between the United States and South Korea had a role in attracting foreign and domestic investment, which was reflected in social welfare.
6- The Free Trade Agreement between the United States and South Korea made it easy to move commodities (both inbound and outbound) to South Korea, which led to the trade balance being in favor of Korea and thus its reflection on social welfare.
7- The free trade agreement between the two countries has increased Korea's per capita income and increased government hypocrisy on various sectors of the country reflecting on the economic and social well-being of the Korean citizen.

1.4.2 Methodology of the Study

The descriptive analytical approach has been used as the most appropriate method used to study social and human phenomena because it is appropriate for the phenomenon in question. Secondary sources were used to collect information, such as books, reports; specialized scientific articles, published research and websites, and illustrative tables were used to illustrate the economic indicators. The SPSS were used in statistical analysis, and the Gini coefficient was adopted.

1.4.3 Limits of the Study

Study limits include:

Time limits: It boils down to the period covered by the agreement from 2012 to 2018. The period of the old agreement and the amendment, that took place during president Trump's time.

Spatial boundaries: Includes South Korea and USA

1.5 Literature Review

A number of studies of a Korea-U.S. FTA have been carried out previously. These studies relied on computational general equilibrium (CGE) models, which provide an economy wide framework for analysis that takes into account the interdependencies that exist both within and between countries. The framework is essentially microeconomic in character.

(CGE) models is one of the methods and analytical tools to identify the behaviors and effects of certain economic variables or policies. The main idea of modeling is that the world of economics is complex and changing, as well as mutual influences.

The model consists of elements, such as relationships between different economic sectors between producer and consumer or between inputs and outputs. Thus, modeling is used mainly for the understanding of the current economic situation, and to study the implications of a specific economic policy on some variables in the economy such as production, consumption and export.

The result is to maximize the social welfare. In short, the model helps to know what could happen in the future in the light of a particular variable or policy.

(CGE) models can be created through (GTAP) model. “The Global Trade Analysis Project (GTAP) is a global network of researchers and policy makers conducting quantitative analysis of international policy issues. GTAP is coordinated by the Center for Global Trade Analysis in Purdue University's Department of Agricultural Economics[7].

[7] Center for Global Trade Analysis,(2015),. ***Department of Agricultural Economics***, *Purdue University*. USA

GTAP model is based on two types of equations.

The first type encompasses equations that represent economic behaviors of different agents (producers, consumers, and institutions such as trade). The second type of equations measures the accounting relationships within and among different agents. In this study, we will adopted the standard GTAP Model and the latest GTAP 9 Data Base. The model consists of 129 country economies, each of which is comprised of 57 industry commodity groupings, and incorporates the import/export trade linkages between them. To analyze the economic impacts of the US-Korea FTA, we set the U.S., South Korea, and the rest of the world as three separate regions in the model.

Several studies have analyzed US-Korea FTA in anticipation of an agreement, but none since it was implemented which all use various forms of CGE models but primarily the GTAP Model.

Study of Cheong (1999) analysis of the economic effects of a Korea-Japan FTA, by using a CGE model. Resulting in an increase in real GDP and improvement in the level of welfare. If the tariffs of the two countries are completely eliminated and our major export industries have their productivity enhanced, Korea can expect a growth, in real GDP, of 11.24 percent and an annual improvement in the level of welfare of 45.5 billion dollars[8].

Choi and Schott (2001, 2004)[9] these studies explore the potential impact, benefits and potential economic costs of the Korea-US FTA. The researchers used the CGE modeling approach to evaluate the transaction and its implications for the bilateral FTA. To estimate the probability of increased trade. Based on a GTAP-type model consisting of 10 regions and 10 sectors, using version 4 of the GTAP database. The results are considerably smaller when agricultural liberalization is

[8] Cheong, I., (1999), "A Korea-Japan FTA: Economic effects and policy implications", ***Global Economic Review*** ,1999,(29), PP. 55-68·

[9] Choi, I., and Schott, J., (2001). ***Free Trade between Korea and the United States?***, Peterson Institute Press.

excluded. U.S. economic welfare would rise by $3.8 billion (0.03 percent of GDP) or $8.9 billion (0.13 percent of GDP).

Lee and Lee (2005)[10] . The authors construct a GTAP CGE model that consists of 13 sectors and 5 countries or regions plus the rest of world. They use the GTAP database, version 6, which refers to 2001. For purposes of analyzing a Korea-U.S. FTA, the results of this study showed that the FTA leads to an increase in GDP and positive changes in economic welfare. There is an increase of 0.42 - 0.59 per cent in GDP and an increase of $ 2.4 - $ 2.7 billion in economic welfare. There is a noticeable change in the industrial sector, and employment in manufacturing affected by FTA. Total manufacturing employment is estimated to increase by 28,000–171,000 workers.

Stern and Kiyota (2007) argued that the Effects of liberalization of trade barriers by Korea and the United States, is shown to increase Korea's economic welfare. Thus, this study showed changes in employment by sector. The employment results presented indicate the shifts in sectoral employment that will occur with bilateral liberalization. The methodology of this study applied by using GTAP model.

Wei, et al. (2018) analyze the economic impacts of the United States-South Korea Free Trade Agreement by applying the Global Trade Analysis Project (GTAP) computable general equilibrium model to highly disaggregated commodity flow data. The analysis calculates the impacts in terms of welfare effects, national economic indicators (such as GDP), and business performance metrics (such as profits or sales revenue), which can be used by a variety of decision-makers. The results suggest several trade-offs among these measures. Positive welfare gains between the US and South Korea are about the same in absolute terms, but favor the latter in relative terms, and very heavily so for GDP gains.

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[10] Lee, H., and Lee, J., (2005), ***Feasibility and Economic Effects of a Korea-U.S. FTA,*** Korea Institute for International Economic Policy.

Johnson (1953) is probably the beginning of the modern economic analysis of trade conflict. A trade conflict is modelled as a two-person non-cooperative game in which countries choose their optimal tariffs knowing that they would be subject to retaliation. The main result from his analysis is that it is possible for a country to gain from increasing its tariffs even if the action leads to retaliatory tariffs from its partner. Although it was not possible to derive the general conditions under which the result holds in the special case where the reciprocal demand curves have constant elasticities Johnson was able to use (relatively crude) numerical methods to determine the values of the elasticities under which one country will be better off in a trade conflict.

The use of numerical or computational methods to determine non-cooperative Nash tariffs has since been a feature of the trade conflict literature. These include papers by Abrego et al (2006), Baldwin and Clarke (1987) on the Tokyo round negotiations, Cronshaw (1997). Where a trade conflict is modelled as a repeated game, Deardorff and Stern (1987), Foreman-Peck et al (2007) to explain optimal tariffs during the inter-conflict years, Hamilton and Whalley (1982), Harrison and Rutstrom (1991), Markusen and Wigle (1989) on optimal tariffs between Canada and the US, and He et al (2017).

The terms-of-trade theory of trade agreements by Bagwell and Staiger (2002) is closely linked to the trade conflict literature since in their framework the outside option to a trade agreement is a trade conflict in which countries choose optimal political tariffs (which differ from standard Nash tariffs). The idea of politically optimal tariffs follows from the argument that governments do not necessarily maximize social welfare since they may receive contributions from interest groups (Grossman and Helpman, 1995). In Grossman and Helpman's model, political encumbers maximize a function that is a weighted average of social welfare and campaign contributions.

Going beyond the traditional terms-of-trade argument, Ossa (2011) proposes an additional reason for trade agreements based on the new trade theory (Krugman,

1980). Trade agreements help governments internalize a production relocation externality in which countries use import tariffs to gain at the expense of other countries by attracting a larger share of manufacturing production. Using this new theory of trade agreements, he uses computational methods to calculate Nash tariffs in case of a trade conflict.

Ch. 2 Theoretical Analysis on FTA

2.1 Historical Background of FTA

The establishment of the Free Trade Area has an impact on the global economy by linking interlocking international trade relations and interests between a numbers of countries. With the birth of this region, which is home to many States, the institutions of the modern world economic order, which is characterized by the hegemony of the capitalist system with its principles and mechanisms, and the states belonging to this organization, seek to benefit from trade liberalization and the movement of international capital. The birth of this organization was preceded by difficult negotiations that demonstrated the contradictions between the major industrialized countries seeking markets for the disposal of goods and services produced by developing countries seeking to protect their economies from intense competition, and to feed their treasury with tax revenues and customs duties on Incoming goods. The most prominent feature of the world economy today is the movement of goods, services, capital, information and labor across national and regional borders, linked to the development of communication technologies that have made the world look like a small village[11].

For years, the United States of America adopted free trade in the world, which was a founding member of the General Tariff Agreement (GATT) in 1948, and continued to support free trade when it became its new form, the World Trade Organization (WTO) in 1994.[12] The key issue here is knowing what governs the decision to start negotiations for a free trade agreement with one or a group of countries. Although the question seems clear, sometimes the answer is ignored. In

[11] - https://www.aljazeera.net/specialfiles/pages/

[12] Al-Radadi, A., (2018), ***Free trade and economic protection policy***, Middle East Magazine.

fact, in many cases the decision is purely political. The desire is to strengthen political ties with a particular country sufficient to encourage policymakers to propose a free trade agreement. Although excellent political relations are an important element in the success of a free trade agreement, it cannot be said that it is the only or most decisive factor in its success. Since many free trade agreements are concluded thanks to excellent political relations between the countries concerned, the deterioration of these relations often leads to the hardening or even termination of such agreements. Therefore, it should be avoided relying exclusively on political reasons in concluding free trade agreements.[13]

For example, in South Korea and the United States, companies either directly or through professional organizations often request the authorities to initiate negotiations on a free trade agreement with any country in view of potential trade development. Based on this request or on its own initiative, if the feasibility study proves that this is necessary, the authorities will open public consultations at the national level. The purpose of these consultations is to gather opinions and suggestions from all parties who are likely to be affected by the conclusion of such a convention. Such initiatives heavily disseminated on the websites of government agencies allowing the competent bodies to conduct an inventory of all arguments in favor of and against the Convention.

When these bodies are persuaded to conclude such an agreement with the country concerned, only then will they enter into talks to begin negotiations. A preliminary impact study is conducted during this phase to obtain a preliminary assessment of the immediate and indirect potential impacts of such an agreement in various areas.[14]

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[13] Cheng, X., Wang, Y., (2009), "Analysis on the Development and Influence of Overlapping Free Trade Agreement", ***Canadian Social Science***, 2009, (1), pp. 44-52.

[14] Islamic Center for Trade Development, (2015), ***The New Generation of Free Trade Agreements and their Impact on Bilateral Trade***, Member States of the Organization of Islamic Cooperation (OIC).

South Korea and the United States have been close to international relations since 1950, when the United States helped create a modern South Korean state and fought alongside it with the support of the United Nations in the Korean War (1950-1953). Over the next four decades, South Korea has made significant progress on the political, economic, and military levels significantly reducing its dependence on the United States. From the Ru Tae Woo administration to the Ro Moo-hyun administration, South Korea has sought to establish a partnership with the United States, which has put the relationship between the two countries under some pressure, particularly because of anti-U.S. and Anti-Dark statements on both sides. Relations between the two countries, however, have improved considerably under the conservative and pro-U.S.-based E. Myung Bak Era. At the 2009 G20 summit in London, US President Barack Obama described South Korea as "one of America's closest and greatest allies."[15]

Starting in 2006, promotion of the KORUS FTA began to accelerate. Once Korea decided on its policy negotiation terms, it broke the tradition of having a minister-level official announce the need for a KORUS FTA by having the president himself speak publicly to the people. At the end of 2005, the negotiation date was undecided, but in early 2006, both sides agreed to hold the first meeting in February of the same year. This resulted in a delay of many public hearings and minister-level economic conferences. Finally, on February 2nd, 2006. The first public hearing on the KORUS FTA promotion was held, and in the afternoon of the same day, during a minister-level economic conference numerous ministers from various ministries confirmed their plan to promote the KORUS FTA.[16]

Once legal procedures to promote the KORUS FTA were taken by the Korean officials, on February 3rd, 2006. The US Senate announced the beginning of KORUS FTA deliberations in reality. The February public hearing, which was held

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15 Abu Dhaif, Z., (2014), ***U.S. Relationship with the Republic of Korea***, Cairo: Arab Knowledge Office.

16 Cheong, K., (2012) "Economic Assessment of the KOREA–US FTA", Korean ***Social Sciences Review***, 2012,(2), pp. 33-94.

to satisfy the negotiation terms with the US, worked against the plans of anti-FTA organizations. They argued that there was not enough time before the public hearings to raise questions at the hearings although the hearing was called to order, it was not actually held. Thus, the negotiation announcement itself, which should have been considered invalid according to them. They also argued that because the "FTA Promotion Procedure Regulations" were a set of rules made with the promotion of KORUS FTA in mind, and considering that the public hearing broke down, the whole situation should be seen as a breach of contract. Criticisms of the government for not providing sufficient opportunities to collect opinions from the public ultimately led the Korean government to hold another public hearing on June 27th, 2006. However, this effort was not enough to calm the outbreak of the Anti-FTA organizations and groups.[17]

Due to the expiration of the TPA, the US suggested that negotiations start from the beginning of that year. However, Korea and the US later agreed to start in June after Korea held a regional election that was planned for the last day of May. Nonetheless, the unofficial negotiations between FTA personnel from both sides led to the inspection of some items on the agenda, which eventually cut much time off the official schedule.

The Korean officials were aware of the TPA expiration, yet they did not agree to any sort of negotiation timeline. Nevertheless, it is true that the Korean officials admitted that it would be much easier to ratify the agreement if it were to be signed by both sides before the expiration of TPA. Therefore, both governments agreed to try their best to come to an agreement by the end of March of 2007 (the actual deadline was April 2, 2007). As a part of this small agreement, both sides also agreed to schedule eight negotiation sessions and to utilize unofficial meetings to reduce the time as much as they possibly could. The number of scheduled negotiation sessions itself shows how much interest both governments had in the KORUS FTA. Thus, for past FTAs, Korea scheduled only up to four such sessions

[17] Abu Dhaif, Z., (2014), ***U.S. Relationship with the Republic of Korea***, Cairo: Arab Knowledge Office

per year, but in the case of the KORUS FTA, there were negotiations almost every month. Furthermore, for every negotiation session, the officials set a five-day structure, which doubled the days spent for negotiations in the past[18].

Concepts of the Study:

- Free trade:

Free trade can be known as the idea of a free market when applied to world trade. In government, parties with views supporting free economy defend the free market, while the economic left and national parties usually support protectionism and antithesis of free trade.

Most countries in the world today are members of multilateral trade agreements in the World Trade Organization. The best examples of free trade are Great Britain's unilateral decision to reduce import and export restrictions and duties from the late 18th century to the 1920s. The alternative approach of establishing free trade zones between groups of countries by agreement, such as the European Economic Area (EEA) or Mercosur, open markets build a protective barrier between this region and the rest of the world. Most governments still impose some protection sought to support local employment, including the application of import tariffs or export taxes. Governments may also limit free trade to limit the export of natural resources.

Economists enjoy broad consensus that protection policies have a negative impact on economic growth and well-being, while free trade and reduced trade barriers have a positive impact on economic growth and stability. However, trade liberalization can cause large and disproportionate losses and economic disruption to workers in competing import sectors.[19]

- General Agreement on Tariffs and Trade (GATT)

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[18] Cheong, K., (2012) "Economic Assessment of the KOREA–US FTA", Korean ***Social Sciences Review***, 2012,(2), PP. 33-94.

[19] -- www.pipa.ps › ar_page.

GATT is an abbreviation of the phrase "General Convention on Customs Duties and Trade", which was held in October 1947 between a numbers of countries with the aim of easing international trade restrictions particularly quantitative restrictions such as limiting the quantity of imported goods known as quotas, which included reducing customs duties on Number of goods.

This agreement contains some provisions of the Havana Charter, which the United Nations is assisting the Member States of the Convention to administer. It has evolved into what is known as the World Trade Organization. It is based in Geneva, Switzerland.

The objectives of the GATT agreement are:

1 Work to liberalize international trade.

2 The reform and the need for a more effective approach to the development of the United Nations is a major challenge.

3 Negotiating international trade disputes.

4 Creating an international climate and preparing for the creation of the World Trade Organization.

It also contained paragraphs with an international legal tone, which is the most important of reciprocity with regard to the transport of goods and their interest in them by the states passing through them as if they were their goods.

The States of the Convention adhered to the principle of non-discrimination between goods and others, and solved problems through the Charter (GATT), which links the states, that Ratified[20].

- Customs duties

It is a recognized international classification system for goods traded internationally under a single commodity code known as the Common System (HS). A global product label group developed by WCO comprising more than 5,000 sets of goods. Each group is defined by a six-digit code (6) arranged according to a legal

[20] - www.paltrade.org › ar_SA › page › trade-agreements

and logical system and based on a set of specific and detailed rules to achieve a uniform classification.

Governments use Common System (HS) codes to calculate and evaluate customs duties, enforce domestic legislation and conduct trade statistics. Tariffs are a duty charge for goods while transported across state policy borders. Customs duties are linked to the principle of protecting the national production of countries and economic policy to determine trade between countries. Tariffs are imposed for political reasons on imported goods as well as on exported goods[21].

There are multiple types of custom duties:

• Value customs duties: a specified percentage of the value of goods imported.

• Specific customs duties: A certain amount of money is deducted from the value of the goods regardless of the price of the goods.

• Weight, for example (set at $1.66 per 1 kg) some products are subject to a percentage or weight-based ratio.

• Piece or unit, for example depends on a percentage or amount for each piece.

• Liters (unit size): For example, tariff fixing is based on a fixed amount per liter, a percentage or a fixed amount per liter.

• Energy, customs duties are charged + a fixed amount per unit of heat depending on a percentage or a certain amount per unit of energy (energy unit)[22].

GDP

The government's policy of "eliminating the negative effects of the economic crisis" has been a major source of income for the poor. GDP is not an indicator of social welfare or gross wealth.

What does GDP measure?

GDP measures the total market goods and services offered for sale, and some non-market service products provided free of charge by governments such as

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21 - https://www.paltrade.org/ar_SA/page/customs-valuation-and-classification

22 - https://www.paltrade.org/ar_SA/page/customs-valuation-and-classification

education, health, security and defense produced within the boundaries of a particular geographical area within a specified period.

GDP includes the productive activity of all residents of a particular country, including foreign companies operating in that country other than the gross national product which measures the productive activity of all holders of a particular nationality regardless of their place of residence. For example, the productive activity of an American company operating in China will be included in China's GDP but within the U.S. GNP.

Measuring GDP:

GDP can be measured from three different approaches:

Through production: by collecting the benefits of all the productive activities to be included. The value added is defined as the difference between total sales and the value of intermediate inputs in the production process.

Through expenditure: the final consumption expenditures of families, companies and the government sector in addition to investment expenditures and the balance of exchanges with abroad (the difference between exports and imports).

Through income: all income generated from production such as employee wages, corporate profits and taxes.

Simon Kuznets initially developed gross domestic product (GDP) for a report to the U.S. Congress in 1934, which Kuznets warned against using as a measure of well-being. After the Bretton Woods Conference in 1944, gross national product (GNP) became the main instrument for measuring the economy of nations.

GDP is not a measure of the standard of living in the economy, yet it is usually used as a measure of the standard of living, and the reason why all citizens benefit from increased production in their country. Thus, per capita GDP is not a measure of per capita income. GDP can increase as the real income of the majority declines. The most important advantage of per capita GDP as an indicator of living level is that it measures frequently broadly and consistently. It measures frequently in most countries that give GDP data quarterly, so changes and trends can be observed

quickly. It measures further because the GDP measure is available to almost all countries of the world allowing comparison. It is consistently measured because the definition of GDP is constant in countries.[23]

GNP

National product means the total monetary value of goods and services manufactured or provided to society within a given year or period. Goods are the ultimate form of goods. The concept of national or national output is similar to that of GDP, but GDP calculates the value of goods and services produced from locally available resources. Gross national product (GNP) calculates the value of goods and services produced from locally owned resources. The concept of national product has emerged because the concept of national production is not sufficient to determine the level of contribution to the productive activity of the national economy.

For Example, there is an iron and steel factory that produces iron that benefits the automotive plant, which cannot be said that the first project for the production of iron is a lot of steel and the second project for the production of cars produces so much of the cars. However, the iron factory converts the raw material (iron ore) into a semi-manufactured commodity and then the car manufacturer converts semi-finished goods into finished goods (automobiles), which is called intermediate consumption or intermediate products.

To determine national income, economists calculate one of two ways:

The first method depends on what individuals and businesses acquire, while the other is based on limiting the volume of production of goods and services. Both methods lead to the same figure as national income because what people earn is equal to the value of the goods and services produced.[24]

Balance of trade

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[23] - https://mimirbook.com/ar/835936a6f53

[24] -https://trading-secrets.guru -gross-national-product-gnp //

There are many concepts about the balance of trade as the whole of the trade. The balance is defined as the difference between the value of a country's exports and the value of its imports, which is defined as that part of a country's balance of payments that relates to goods or tangible objects. Whether imported or exported, the trade balance also means the balance of business operations, i.e. purchases and sales of goods and services. This is the broad meaning of the trade balance currently commonly used.

The trade balance can be positive or negative. If its balance is positive that means that, the amount of the country's exports of goods and services is more than its imports. We say if "surplus in the balance" or the so-called "trade surplus", Canada is prepared. For example, Germany and Japan are examples of a positive trade balance, i.e. they have a stable economy, but if the balance of the trade is negative, that means that the amount of the country's exports of goods and services is lower than its imports. Therefore, it is not issued enough and this is called "trade deficit" and should not necessarily be regulated countries.

With a growing economy such as the United States of America, Hong Kong and Australia have a trade deficit and these countries have the capacity to meet the huge domestic demand in periods of economic boom. The trade balance negative is more difficult in poor countries whose growth and economy depend on foreign investment[25]. The trade balance can be defined as the account by which all transactions for the movement of goods and services from the state to the outside state are recorded and may be in surplus or deficit.

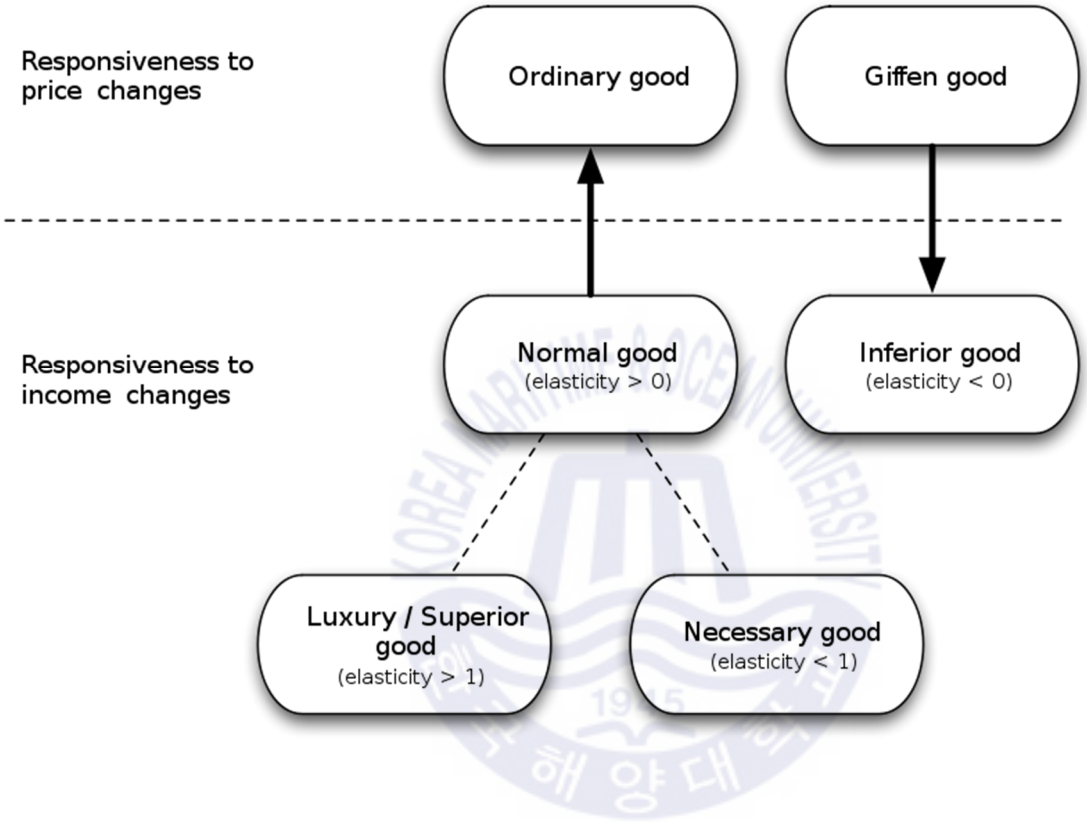
Goods

The commodity in the economy is something that meets human needs and provides benefit. For example, the consumer who makes the purchase is a clear difference between "goods", which are tangible property in which services are not material. The term commodities can also be used as a synonym for economic

[25] - https://ar.tax-definition.org/77783-social-welfare

commodities, but it often refers to raw materials and basic products that can be marketed. Although in economic theories, all goods are considered tangible. In practice, certain categories of goods, such as information come only in intangible forms.

Figure 2-1. The Types of Goods



Social welfare

Well-being is the combination of factors a person needs to enjoy a good quality of life. These factors lead to a calm existence and a state of satisfaction.

Thus, social welfare includes things that have a positive impact on quality of life such as decent work, economic resources to meet needs, housing, access to education, health, and leisure time, etc. Although the concept of well-being is a subjective concept (what is good for one person may not be for another), social well-being is linked to objective economic factors. For example, in a country where a typical family (four members) needs $200 per month to meet their basic needs, not all families with less than that amount can enjoy social care. Therefore, family

members earning $100 a month are likely to have nutritional problems and have lower life expectancy.

However, behind these figures set out as a minimum to achieve a healthy standard of living, there are a series of preconceptions that force people to think that you cannot live if certain requirements are not met. Dairy, from cows, since it is an indispensable source of calcium. That is not true at all[26].

2.2 Economic Effect of FTA

The Republic of Korea has signed Free Trade Agreements (FTA) with multiple nations. Thus, Korea has signed treaties with Chile (effective as of April 2004), Singapore (effective as of March 2006), and the European Free Trade Association (effective as of September 2006), and the Association of Southeast Asian Nations (ASEAN: effective as of June 2007). Agreements with the European Union, India, Canada, and Mexico are underway. The FTA with the United States had been under examination since 2003, when Korea finalized the "FTA Propulsion Roadmap." Some degree of examination was conducted intermittently before 2003. However, due to the unfavorable domestic and foreign situations at the time, progress was difficult.[27]

In 2004, Korea began to contact the US actively to establish bilateral discussions on the matter. In 2005, the US and Korea held working-level FTA discussions three times, and on the basis of these, both sides announced that official negotiations would be held in early 2006. The time taken for Korean-US free trade agreement (KORUS-FTA) negotiations was relatively brief compared to that needed for other FTAs. Thus given that such a comprehensive FTA contained rather many sensitive issues, many expect a considerable economic impact because of the KORUS-FTA due to its exemplary form of market access designs along with its advanced trade policies.

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[26] - https://ar.tax-definition.org/77783-social-welfare

[27] - Same reference as before.

It is expected to have a great impact on Korea's future FTA and trade policies. Establishing an FTA with the world's largest market, the USA allows amplified possibilities for Korean businesses to advance into the American market, which can ultimately support Korean businesses as they attempt to advance into other foreign markets. In fact, the records of actual exports to American distributors are known to be used as references when consulting about exports with other nations. The process of establishing the KORUS-FTA has been fraught with domestic resistance due to the sensitive topics it contains. Many opposing factions criticized the very nature of the FTA, the opening of markets, and the related deregulation plans.[28] However, some opposed the KORUS-FTA regardless of the content of the agreement simply because the policy partner was the US. Meanwhile, the authority's attempt to settle on the agreement before the expiration of the American TPA (Trade Promotion Act) resulted in tense public hearings. In addition, the authority's leading the public to think that the processes were being rushed working against the gaining of public In 2003, when Korea officials contacted the US to review the FTA, Americans viewed the Korea's will to push for the FTA to be low and considered the Korea-Chile FTA to be an ordinary trade agreement. Furthermore, they considered the Korea's trade policies to be overprotective. They underestimated the economic gains made by the US through the FTA. Later, when Korea successfully entered into agreements with Singapore, EFTA, ASEAN and promoted FTAs with Canada, Mexico, and India, the US finally began to view that Korea will be high. Meanwhile, the US most likely felt some degree of threat from the rise of China and the deterioration of Korea-US relations meaning that the KORUS-FTA would fulfill the need to strengthen the strategic alliance between the two nations [29]

[28] Choi, M., (2007), ***KORUS FTA: What Is the Truly Desirable Direction of Resolution?*** Presentation at a session of the FTA Research Center.

[29] Jeffrey J. Schott (2018), ***Fixing the KORUS FTA-Without Firew***, Peterson Institute for International Economics.

Since the United States – Korea Free Trade Agreement (KORUS) went into effect in 2012, the U.S. trade deficit in goods with Korea increased by 75 percent from $13.2 billion to $23.1 billion (2017), while the overall deficit increased by 57 percent from $6.3 billion to $9.8 billion (2017). Through negotiations to improve KORUS, the United States has secured changes that will reduce the trade deficit and ensure that KORUS is a good deal for American workers, farmers and businesses.[30]

I will review some of the economic implications of the free trade agreement between the two countries and view how it reflected economically on the United States of America:

1. The United States achieved important steps to improve the large trade deficit in industrial goods and to address KORUS implementation concerns that have hindered U.S. export growth.
2. U.S. Truck Tariffs: Korea will extend the phase out of the 25% U.S. tariff on trucks until 2041, or a total of 30 years following the implementation of the KORUS FTA in 2012. (Currently scheduled to phase out by 2021).
3. Growing U.S. Auto Exports: Exports of U.S. motor vehicles to Korea will be improved through the following steps
4. Greater Access for U.S. Exports: Korea will double the number of U.S. automobile exports to 50,000 cars per manufacturer per year that can meet U.S. safety standards (in lieu of Korean standards) and enter the Korean market without further modification.
5. Harmonization of Testing Requirements: U.S. gasoline vehicle exports will be able to show compliance with Korea's emission standards using the same tests they conduct to show compliance with U.S. regulations without additional or duplicative testing for the Korean market.

[30] - https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2018/september/fact-sheet-us-korea

6. Recognition of U.S. Standards for Auto Parts: Korea will recognize U.S. standards for auto parts necessary to service U.S. vehicles, and reduce labeling burdens for parts.

7. Improvements to CAFE Standards: Korea will expand the amount of "eco-credits" available to help meet fuel economy and greenhouse gas requirements under the regulations currently in force. Thus, ensuring that fuel economy targets in future regulations will be set considering U.S. regulations and continue to include lenient targets for manufacturers that sell small volumes of cars in Korea.

8. Customs Improvement: Korea will address long-standing concerns with onerous and costly verification procedures through agreement on principles for conducting verification of origin of exports under KORUS and establish a working group to monitor and address future issues that arise.

9. Pharmaceutical Reimbursements: Within 2018, Korea will amend its Premium Pricing Policy for Global Innovative Drugs to make it consistent with Korea's commitments under KORUS to ensure non-discriminatory and fair treatment for U.S. pharmaceutical exports.[31]

On the other hand, we see that since the Free Trade Agreement between the United States and Korea came into force on March 15, 2012. On the day of implementation, nearly 80 percent of U.S. industrial goods exports to Korea became duty-free, including aerospace equipment, agricultural equipment, auto parts, construction products, chemicals, consumer goods, and electrical equipment. The environment is goods, travel, paper products, scientific equipment, shipping and transport equipment. Other benefits of the FTA include stronger protection, enforcement of intellectual property rights in Korea and increased access to the $580 billion Korean service market for highly competitive U.S. companies.[32]

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[31] - https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2018/september/fact-sheet-us-korea.

[32] Wong, A., (2012), ***Measuring trade barriers: an application to South Korea's domestic trade***, University of Chicago.

2.3 Trends in Economic Welfare Analysis

Economic welfare, one part of general social welfare that can be measured directly or indirectly by cash. Some economists believe that the study of economic well-being should be limited to analyzing the causes and factors that can lead to the greatest psychological, physical and social stability of the individual within a particular society, which is thus a positive scientific study. Others believe that the study of economic well-being must include the study and evaluation of economic efficiency and systems for the distribution of resources, leading to the greatest social benefit and the creation of conditions through which economic policies can promote the well-being of society.

The optimal welfare situation is known when it is achieved at the highest standard of living for all members of society, without exception. If any change occurs at this optimal level, it will lead to increased standard of life for some social groups, and therefore this change must result in harm to other social groups, and even to the surrounding systems associated with human communities, especially the ecosystem, which is the main source. To support human life on Earth, it takes away the types of resources that support and develop all its welfare.[33]

States seek the minimum or simplest well-being of their societies, and well-being is satisfaction. For individuals that makes individuals the way they consume goods and services, i.e. food, clothing, housing, health care, learning, entertainment, security and stability. The government's policy of "social and economic development" is to provide a strong errand for the development of the economy. The reform, the examination of social welfare in society is linked to the total income or overall result, and the objective can be translated. Economic effort in any society seeking to raise the level of goods and services or the level of real per capita income to the highest possible level.[34] .

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[33] -Ahmed, J., (2017), ***The Economic Dimensions of Environmental Problems and the Impact of Sustainable Development***, Khaled Al Habani Publishing and Distribution House.

[34] Jassim, A., (2011), ***Study and Analysis of Economic Well-Being***, Basra University.

Jeffrey J. Schott (2018), ***Fixing the KORUS FTA-Without Firew***, Peterson Institute for International Economics.

Economically, well-being is linked to happiness and the will to live, and the well-being of economic well-being is known. Thus, the monetary economy deals with social welfare directly or otherwise. In this matter, Bejo decides that there are two basic ideas to prove te overall level of economic well-being to enjoy, and these two ideas used by Bejo in his case are based on the thought (social worker) and have the potential to satisfy.

I will present two people who have ideas within the atmosphere:

(**a**) Economic well-being provided that low-income people do not decrease what was before the increase as he asserts in the first place that the increase in national income will lead to social welfare for society when the relationship is directly between the level of national income and the level of economic well-being.

(**b**) Income distribution: Urge the redistribution of income forever in due course, this process will improve the economic situation of all social groups through equitable income distribution, and should be in the interest of low-income people.

It is important to note that economic well-being is the main product of economic development in any society. The material and meaning needs of the human being are advanced or dormant and equipped with the basic criterion of age and social achieved satisfaction in the sense of resorting to the distribution of income between different regions of the country and between different social smells.

Well-being can be defined as the fate of interest and happiness that enables the individual to feel satisfied, and happy to benefit from a range of goods and commodities that meet his diverse and growing desires.[35]

Therefore, the point of focus in welfare is the standard of the live, which is to ensure that happiness for the self and society is achieved in the process of distributing a standard of income. The conclusion is that economic well-being is based on private and public benefits, and this is how the level of social welfare is different from countries.

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[35] Hassin, M., (2010), ***Access to welfare relates to some economic components of the distribution of national income and wealth***, Eternity Publishing House, Beirut.

Within one country to another, the type of economic activity, whether it is agriculture, or manufacturing, the welfare from the researcher's point of view means that the situation affects the life of the person and group he/she is working on the sale of basic needs such his/her environment, dress code, housing.

These needs are required by the social life, such as education, health and culture services and security.[36]

There are theories and methods that measure Welfare:

a) Analyst Piratical is the first to establish the support for the development of welfare economies. It is known that it is the most basic standard of the human being. Members of society, without exception, are in the process of changing in this instance, resulting in a further increase in the standard of the living for some of the social categories, this change must result from the harm to other social categories and reduce their satisfaction from the level. Ideally, any delay that occurs at the best level of the community will lead to the non-realization of the social welfare of the community.
b) Analyst Kaldor-Hicks says that welfare economics is a topical and science study, not a moral study, as it is proposed to it to meet in a book. It is the welfare economy. Kaldor Hicks explains that the idea of analyzing the barrette on the fact that the ability to change in the ideal stake of the society can achieve economic welfare. It provides that the right to be at the level of the people who are exploited from change, the greatest risk of decline in the standard of care for individuals can be affected by change.
c) Analyst Littles the morality, which is that the winners of change will seek the good of the other. It is estimated that the level of satisfaction with the ideals of life is reduced until social justice is achieved and the level of economic well-being is achieved for the community.

[36] Basheer,A.,(2004), ***Welfare and Development, The Direction of Kuznets- A QuarterLy Economic Study of A Country of A Different Arab Country***, University of The Besser.

d) Analyst Scitovsky contradicts the analysis of Little. The lack of principle of compensation between winners and losers are on a moral basis, Scitovsky stressed that there is more than one case of change. The case must be chosen depending on the case that is more distributed. For example, Fairness to income, i.e. the situation that is characterized by fewer winners and the least number of losers than the change (at the standard of the standard). Therefore, the situation that Scitovsky seeks to achieve which depends on the living level of all community groups and welfare.

The economic welfare of society is based on the criterion of income and the degree of equity that it distributes between individuals and groups of society in the sense that the standard of living is sufficient for one under the general level of market prices, and here we have to be sure. The basic requirement is both necessary and sufficient for well-being, i.e. the economic stabilization factor that actually supports the recovery process. Therefore, all the economic benefits of society are based on the need for income stability as an impact. Important in the process of assessing the true level of economic well-being.

There are many measures of economic welfare, but the most important of these measures include[37]:

1- Criterion of Pareto Optimality: A hypothetical situation that cannot be applied in practice for the reason of the basis on which it is applied in determining the level of well-being of a people. It represents only two types of goods, and the economy is considered in full state, as Pareto relied on the theory of curves to illustrate the level of social well-being. In the optimal illustration of the use of the edge, the distribution of income on care can be achieved through a medium increase. Income, which means that economic growth rates must exceed population growth rates.[38]

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[37] Kakwain ,N., (1980), ***In come Inequity and poverty***, oxford university press.

[38] Lawrence A. Boland, (2000), ***the Methodology of Economic Model Building Methodology after Samuelson London***;,New York: Rutledge.

2- Lorenz's curve: This is one of the most important indicators of economic well-being since 1905 because of its ease. It is a recital of a dissociative group that is directly linked to the idea of distributing the cluster, and the relationship between the family household sit-in and the income/expenditure hierarchy.

3- Gini Coefficient: It is an important indicator adopted in measures of income well-being and equity in its distribution, and distinguishes from its past that it shows the degree of well-being in digital rather than in a clear form. This factor is used in its idea on the Lawrence curve, where the distance allocated to Lawrence's curvature is equally divided by a square under equality, so that the value of the coefficient is limited to zero (in the case of equality distribution, i.e. when there is justice. The optimal level of well-being and one in the case of the correct distribution of the total is when each entry goes to only one unit at any level of well-being. Therefore, the higher the quality of genetic factor, and the stronger the disparity in income distribution, then the less it is a sign that the evidence in the income distribution is lower conversely. There are many equations for calculating the Gini factor. One of the simplest of these equations is the following equation:

$$G= 1 - \frac{1}{1000} \sum_0^n \quad (S_i - S_{i-1})W_i$$

If:

G= A Gini coefficient for the distribution of income and its growth is **(1< G < 0)**

S_i= the rising complex of the percentage of the internal category **I**

S_{i-1}= Rising pool of 100 percent for the previous category I

W_i= Percentage of families (or individuals) in category **I**, or percentage of community groups.

N= Number of categories

1000= Income criteria limit

The income standards limit is set by the experience of human development on the minimum needs covered by the income. In the general lyceum of prevailing prices can be represented by average per capita income or average income groups.

1. Coefficient of Anand and Sen: This is one of the most talked about economic welfare after several attempts by the development experts (Anand and sen) In 1999, their efforts culminated in a long-term formulation to determine the level of well-being, and can be explained by the following relationship:[39]

A-S= Log Y min – Log/ Log Ymin Log Ymax

If:

A-S= Welfare factories A-S<1

Yi = Average income or expenditure per capital

Ymin = Minimum income

Ymax = Maximum income limit

In the light of previous theories, the relationship between economy and well-being is close that well-being is linked to development and increased standard of living among individuals showing that the relationship is causal. From this portal, we will see the impact of the Free Trade Agreement between South Korea and the United States on the economic and social well-being of South Korean society. Through chapters 4 and 5, the causal relationship will be analyzed through digital statistics that show the increasing income of individuals and the level of local and national income affects the well-being of all its community components.

2.4 Reasons for expansion of FTA

Despite President Donald Trump's denunciation of the Korea-US Free Trade Agreement (KORUS FTA) as a "horrible" deal for the United States, there were few fireworks when US and Korean officials sat down to renegotiate the accord on

[39] Ndah, J., (2006) , ***Analyze and measure the trends of poverty in Iraq for the term (1980-2005), doctoral thesis submitted to the Board of The College of Management and Economics***, Basra University.

January 5. Unlike the situation with the North American Free Trade Agreement (NAFTA), neither country wants to revisit the entire agreement. Instead, the US and Korean goals are to revise specific commitments using existing amendment procedures of the KORUS FTA. On the other hand, the two sides are far apart on what should be done or discussed. President Trump has threatened to scrap the pact if negotiators do not rebalance the deal and reduce the US trade deficit with Korea. US officials have asserted that the large US merchandise trade deficit with Korea is ipso facto evidence that the agreement has been unfair to the United States. Accordingly, American negotiators are insisting that the agreement enables the United States to export more to Korea. Korean officials disagree, however they have agreed to negotiate amendments to the KORUS FTA.

A quick look at the most recent trade data indicates that US concerns about the bilateral deficit are exaggerated. US trade with Korea is substantially in balance with the notable exception of the auto sector. The overall US trade deficit, goods and services, is less than $12 billion and sharply down from the 2016 level (see table 1). In 2017, US goods exports rose 15 percent and the merchandise deficit fell by 21 percent compared to 2016. The major imbalance is the bilateral deficit in autos and parts, which dropped $2 billion but still recorded a sectoral deficit of $21.5 billion—equal to about 98 percent of the US goods deficit with Korea.[40]

It is clear that the US side expects Korea to make most of the changes and does not intend to amend the provisions requiring changes in US law. For this reason, U.S. officials have not followed the notification, consultation and reporting requirements necessary to respond quickly to the executive legislation of the revised Trade Promotion Authority (TPA) agreement.

[40] Williams, B.R. (2012), ***Trans-Pacific Partnership (TPP) Countries: Comparative Trade and Economic Analysis***, CRS Report for Congress.

Table 2-1. US trade with Korea (billions of dollars)[41]

US trade with Korea (billions of dollars)		
	2016	2017*
US goods		
Exports	42.7	48.9
Imports	70.4	70.8
Balance	-27.7	-21.9
US services		
Exports	21.1	21.8
Imports	11.0	11.3
Balance	10.1	10.5
Total US trade balance	-17.6	-11.4
Data for January-September at annualized rate.		

Regardless of the desire to reverse the commodity trade deficit, what the U.S. negotiators want to fix in the Corus talks is unclear. U.S. targets have not been publicly discussed within congressionally advisory groups. The statement issued by the two sides after the initial negotiating session noted that "the United States discussed proposals to move toward fair and reciprocal trade in key industrial goods sectors, such as automobiles and auto parts, as well as to resolve additional comprehensive and sector-specific barriers affecting exports American". However,

41 - *Source*: US Bureau of Economic Analysis, FT900, Exhibit 20 (Jan 2018).

balanced trade in the automotive sector is a false dream. The U.S. auto market is more than 10 times larger than the Korean market. If U.S. car sales in Korea are equivalent to the number of Korean-branded cars sold on the U.S. market (Imports and Korean cars produced in the United States), U.S. automakers will acquire a market share in Korea of 100 percent. [42]

Table 2-2. US-Korea auto trade (billions of dollars)[43]

US-Korea auto trade (billions of dollars)		
	2016	2017*
US autos and parts		
Exports	2.6	2.5
Imports	25.1	24.0
Balance	-23.5	-21.5
Data for January-September at annualized rate.		

Through this new agreement, U.S. officials pressed to resolve the problems mentioned in the 2017 U.S. National Trade Assessment report on foreign trade barriers, particularly data localization requirements. U.S. officials say Korean law imposes strict requirements on service providers seeking to transfer customer data outside Korea, preferring local cloud computing providers at the expense of Foreign Service providers. Moreover, U.S. officials are determined to reduce Korean restrictions on imports of agricultural products.

[42] Jassim, A., (2011), ***Study and Analysis of Economic Well-Being***, Basra University.
Jeffrey J. Schott (2018), ***Fixing the KORUS FTA-Without Firew***, Peterson Institute for International Economics.

[43] - *Source*: US Census Bureau, FT900, Exhibit 18

At the first special session of The Corus Trade Ministers in August 2017, U.S. Trade Representative Robert Lighthizer asked Korea to accelerate and deepen its commitments to the Free Trade Area for Farm Liberation. Unlike automobile and data services, the efforts to liberalize Korean agricultural products behind the salient commitments made in the KORUS Free Trade Area would provoke a strong political reaction in the National Assembly, especially if the U.S. side even demanded the partial opening of the market Korean rice.

Korean officials have been pragmatic in response to US demands for additional Korean concessions without complementary US reforms. We see here one of the most important reasons for the new agreement is the realization of Korean officials that U.S. officials can only process requests for review of the Free Trade Agreement (KORUS FTA) which does not require congressional approval. Rules: Investor-State Dispute Resolution Provisions (ISDS) and exemption of partner countries from global safeguard measures .[44]

The ISDS procedures allow foreign investors to challenge unjustified direct or indirect expropriation of their investments when governments change law or regulatory practice. ISDS provisions have elicited strong opposition among legislators and civil society groups in the United States, Europe, and Korea, concerned that potential ISDS litigation could discourage regulatory reforms. ISDS provisions were a key concern of Korean critics of the KORUS FTA, though the opposition did not derail ratification of the trade pact by the National Assembly. The Koreans probably would be cheered at home if ISDS was dropped from the KORUS FTA—and US officials might accommodate them. In the NAFTA talks, the US side reportedly proposed changes to ISDS provisions that effectively would eliminate recourse to such litigation. Korean negotiators thus may be pushing on an open door. Existing trade rules governing what are called “global safeguards” provide temporary protection if imports cause or threaten serious injury to domestic

[44] Jeffrey J. Schott (2018), ***Fixing the KORUS FTA-Without Firew***, Peterson Institute for International Economics.

industry. Under WTO rules, safeguard measures are supposed to apply to all imports, though NAFTA exempted regional partners from Canadian, Mexican, and US safeguard measures.

The KORUS FTA did not include a similar provision, and the Koreans want to add the NAFTA safeguards exemption to the KORUS FTA to preclude actions like the US safeguards measures applied in late January 2018 against Korean exports of washers and solar panels. Meanwhile, US officials are trying to delete that provision as part of the NAFTA overhaul. [45]

Finally, Korean officials hope that planned purchases of military hardware and liquefied natural gas (LNG) will swell US exports and demonstrate their willingness to boost trade opportunities for US exporters. In 2016, LNG imports were valued at $12 billion, so shifting to US suppliers for even 10 percent of their import needs would boost US exports by more than $1 billion.

Trump wants Korea to buy more US goods to reduce the US bilateral trade deficit, although he will not offer to change US policies in return for new Korean trade reforms. However, Koreans did buy more goods last year and are interested in buying more US energy products. Moreover, the bilateral US trade deficit is sharply down from peak levels in 2016—the market already has done much of what Trump wants to rebalance bilateral trade flows.[46] The reasons and motives of the United States were strong in order to renegotiate the free trade agreement and change some of the provisions that came in favor of the United States.

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[45] Jeffrey J. Schott (2018), ***Fixing the KORUS FTA-Without Firew***, Peterson Institute for International Economics.

[46] Damian, H.,(***2001),South Korea signs Central American free trade deal***, **Business Recorder**.

Ch.3 Current State of FTAs in World Economy

3.1 The Trend of FTA in the World Economy

Under the concept of international trade agreements, it is an agreement between two (or more) countries on the terms of trade between them, and under this agreement states determine tariffs and taxes they impose on exports and imports, and all trade agreements affect international trade.

There are three types of international conventions:

The first is a unilateral agreement that occurs when one state imposes trade restrictions without similar restrictions. A country that does not have a trade-off can ease trade restrictions, but this is rare because it is not a competitive advantage for that country. The United States and developed countries do this as a kind of foreign aid to help emerging markets strengthen certain industries contributing to the growth of their economies and creating new markets for U.S. export companies[47].

The second type is bilateral agreements between two countries with two countries agreeing to ease trade restrictions such as reducing tariffs to increase trade opportunities between them, which are common in the automotive, oil and food industries.

The third type is multilateral trade agreements, which are between three or more countries, which are therefore the most difficult to negotiate, and the more difficult and complex they are, the more difficult and complex they become because each country has its own needs and demands. Once an all-state negotiation is reached, the Convention is extremely robust and covers a large geographical area, which is a competitive advantage for its participants.[48]

[47] https://www.argaam.com/ar/article/articledetail

[48] Denis, A., (2006), ***The Impact of Regional Trade Agreements and Trade Facilitation in the Middle East and North Africa Region***, World Bank Policy Research Working.

The impact of trade agreements on the productivity of countries:

- There are pros and cons to free trade agreements. The removal of tariffs leads to lower import prices and therefore the consumer benefits from this.
- On the other hand, these agreements may affect some local industries that cannot compete with low-standard living countries forcing companies to quit their jobs and many lose their jobs.
- On the other hand, some local industries may benefit from trade agreements finding new markets for their duty-free products. This helps to grow these industries and hire more workers.

Free trade agreements affect the productivity of countries in several ways:

1- Strengthening global value chains

- Free trade agreements help increase the domestic value added of exports across global value chains.
- These agreements also improve front links, especially in more complex value chains.
- These agreements usually have a greater impact on services with benefit than value-added goods.

2- Entering the value-added industries

-Trade agreements help countries enter value-added industries.

-These services are represented in the service sector, and the sector is characterized by intangible activities such as research and development or high-value retail services.

3- Trade agreements are important for countries for various reasons

- The restructuring of existing international trade policy relationships may have far-reaching consequences for future production regulation.[49] International trade can be defined as the exchange of goods between countries, which contributes to the strengthening of an international economy that is affected and affects international

[49] Amadeo, K., (2017), ***International Trade: Pros, Cons, Effect on Economy***, The New Balance Press.

demand, supply and prices, and defines international trade as a set of rules used to regulate trade routes. International products by relying on commercial and regional regions and regions. The importance of international trade is one of the most important pillars of the success and prosperity of the economy for all the countries of the world. It shows its importance in its role, which supports the benefits of each country because of the inability of states to provide for the needs of their communities based on their local resources. These can be used as resources with the aim of exporting them to countries of the world.[50]

The importance of international trade is explained precisely in the following points:

1. It is the direct means of strengthening international relations because of its role in linking states together.

2- Contributes to the provision of many services and capacities based on the principle of specialization, which provides products at the lowest prices.

Supports marketing capacity by creating many new markets for diverse products.

4. Helps raise the welfare rate in society by providing many products that diversify individual choices for both consumption and investment.

5- It is an important indicator of measuring countries competitiveness, marketing products and production in international and international markets.

States are involved in building strong economic systems and promoting sustainable development by providing key information and appropriate technological means. Supports economic development through the development of national data that contributes to the development of each country's own development.[51]

3.1.1 International trade trends

Directions affect the structure of international trade:

[50] Heakal,R., (2015), " "***A sovereign credit rating provides [general credit worthiness] as it signifies a country's overall ability to provide a secure investment environment*** ,Investopedia.

[51] [51] Amadeo, K., (2017), ***International Trade: Pros, Cons, Effect on Economy***, The New Balance Press

Economist Adam Smith founds the first trend where the fragmentation of the business globally leads to the specialization of countries in the provision of certain products. It depends on their conditions that constitute an absolute productivity advantage. Smith considered that international trade depends primarily on absolute expenditures, i.e. Exports from all goods are produced by the lowest absolute expenses, while the most expensive imports from the products are produced by the highest .[52]

The second direction is that the economist Ricardo founded it because he felt that the direction of absolute expenditures can only be applied in internal trade, and cannot be used in the interpretation of the structure of international trade. Ricardo was keen to establish a rule known as relative expenditures, and indicates international trade depends on the relative costs of products with exports accounting for all relatively superior volumes, while imports account for all the costs produced before the highest relative expenditure is provided.[53]

Economist Michael Porter founded the third direction by formulating a competitive feature base that was interested in developing Ricardo's relative advantage base, in order to be used to express a country's excellence in producing a particular product based on productive elements. Modern resources, such as human resources, capital, technology, etc., and accordingly determines the international trade of agriculture based on the nature of the state's specialization in the production and export of products based on acquired characteristics, while classifying the imports of natural resources that the state cannot. Its production is among the elements of competitive advantage.

The fourth trend is the one that relied on competitive ness, which indicates the potential of countries to provide for the needs of international markets while maintaining the development of citizen’s livelihoods.[54]

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[52] British Arab Academy of Higher Education, (2009), ***International Trade***.

[53] - Same reference as before.

[54] - Same reference as before.

International trade features:

There are ranges of features that distinguish international trade. The most important are:

1- Contributing to supporting economic growth and job creation.

2- Supporting local facilities and providing them with sufficient expertise to provide products to international markets abroad.

3- Have a competitive advantage in the field of international trade.

4- Attention to foreign competition based on imports in reducing the prices of products on consumers.

5- Providing a variety of services to individuals.

- International trade impacts:

The application of international trade has several negative effects, including:

1- Reducing job opportunities in the domestic industry sector due to governments reducing customs duties and the inability of local industries to compete globally.

2- Relying on external means of work, because of the interest of companies in moving their industrial and technological offices to countries with low living standards.

3- Loss of countries that rely on traditional economic regulations in their domestic agricultural sector.

- International Trade Relations:

International Trade Relations are divided into two types:

1- Local trade relations: trade processes that apply within one country, and between individuals with legal or natural personalities, and all provisions apply to these trade relations, local and commercial law.

2- Global trade relations: the processes of advanced and complex trade compared to local trade. It is interested in international openness to the trade sector, and this leads to the resort to new markets in various countries and away from the country where the project was founded. It is considered the type of trade relations are

antithetical to the economic closure of itself, encourage integration, and development and support of international trade movements[55].

As an example of free trade agreements and their impact on the global economy, Professor Kim Deho, director of the Institute for Global Economic Research, says: “A free trade agreement can be signed between two countries, and multilateral free trade agreements can also be concluded with the participation of many countries. Such as the "Comprehensive Regional Economic Participation Agreement", the largest multilateral trade agreement in Asia. Its membership includes densely populated countries such as China, India and Japan. The Convention contains a huge economic bloc that represents nearly half of the world's population and one third of the world's GDP. The Comprehensive Regional Economic Participation Agreement (CMA) is a huge free trade agreement covering 10 ASEAN member states, ASEAN, and 6 other countries: South Korea, China, Japan, Australia, New Zealand and India. The combined population of these countries is 3.6 billion, or 48% of the world's total population. According to the International Monetary Fund, the total economic output of 16 countries was $25 trillion in 2017, one third of global GDP. In addition, the countries participating in the agreement achieve higher growth rates than developed economies such as the United States and European countries, and many of those participating countries have a larger young population, which is why they are called the "new growth engine for international trade". Efforts to form this huge market began in 2012, and the first round of negotiations on the China-led trade agreement began in 2013. After years of discussions, 15 countries, with the exception of India, agreed to the terms of the trade agreement."[56]

With regard to South Korea's role in the Asian Trade Agreement as an example, Director Kim De Ho said: “The agreement is expected to help Korea expand economic exchanges by significantly increasing export and import destinations”.

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[55] - World Trade Organization (WTO) <http:rtais.wto.org/UO/PublicAllRTAList.aspx

[56] - World Trade Organization (WTO) <http:rtais.wto.org/UO/PublicAllRTAList.aspx

On the trade front, Korea is heavily dependent on China and the United States for export. Thus, any economic dispute between the world's two largest economies would have a major impact on Korea. However, if the agreement is activated, Korea will be able to diversify its export markets to India, Indonesia, Vietnam, the Philippines, New Zealand and Australia, along with China and the United States. Of course, Korea may sell its goods in those countries without concluding an agreement, but it will have to conduct trade negotiations with individual countries. Using the Economic Participation Agreement, Korea will be able to export and import products to and from the other 15 countries more easily and effectively."[57]

According to the Korea Economic Research Institute, the signing of the "Comprehensive Regional Economic Participation Agreement" will add an annual average of 1.1% to Korea's GDP, or about $1.1 billion in interest to consumers, which will improve Korea's current account balance by 28.7% billion dollars in the medium to long term. Korean manufacturers of electrical and electronic products as well as automobiles will benefit from reduced trade barriers. Thus increasing their exports to 15 countries. The agreement is also expected to boost investment in the service industry. However, this agreement may have a negative impact on some Korean industries. [58]

According to the Korea Institute of Rural Economics, South Korea exported $3.15 billion worth of agricultural products to the convention's member states in 2015, while imports of agricultural products from those countries amounted to $6.68 billion. This means that the convention will increase the negative impact on Korean farmers. Another problem is India's rejection of the agreement reached last week on the implementation of the agreement, as India remained passive toward the

[57] Whalley J., (2014), ***Korea and the Trans-Pacific Partnership: A Numerical Simulation Assessment of the Effects Involved***, The World Economy.
[58] YONHAP, News, (2019), ***Comprehensive Regional Economic Participation Agreement***, KBS world press.

agreement for fear that large quantities of low-priced Chinese products might flow to it.[59]

3.2 The Contents of FTA between South Korea and USA

Trade treaties are a formal expression of intergovernmental cooperation. Governments relinquish their sovereign rights to choose their own trade (and other) policies in exchange for similar con-cessions by others. Why might a government be willing to compromise its sovereignty? In a word, the answer is interdependence. The policies imposed by any government the well-being not only of its own citizens, but also of those in other countries. No matter what the objectives of the policy makers. Be they benevolent, autocratic, or politically motivated.

Each has an interest in the choices made by its trading partners. With unilateral policy choices, governments may fail to take into account the impact of their actions on interests abroad. A trade agreement provides a means to internalize these externalities. Of course, to identify the incentives for concluding a treaty, one must begin by identifying the nature of the potential externalities, that is, by predicting the trade policies that would prevail in the absence of cooperation . [60]

The new trade agreement between South Korea and the United States means that Korea should cut its steel exports to the United States by 30 percent from the average over the past three years in exchange for becoming the first US ally to receive an unspecified exemption from its tariffs. Imposed by Trump on steel. South Korean Trade Minister Kim Hyun-chung told the media in Seoul "We have intensified the discussions... The latest agreement removes two issues that are blurred," he said, referring to steel tariff exemptions and the renegotiation of a free trade agreement between the two countries. Import duties of 25 percent on steel and 10 percent on aluminum are aimed at curbing imports from China.

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[59] -Same reference as before.

[60] Grossman M., (2016), ***The Purpose of Trade Agreements***, National Bureau of Economic Research.

South Korea received a share of 2.68 million tons of steel exports, equivalent to 70 percent of South Korea's average annual exports to the United States between 2015 and 2017, and would be exempt from new customs duties. A ministry official said South Korea would not be allowed to export steel products beyond that quota to the U.S Market. As part of the FTA review, U.S. automakers will be able to bring up to 50,000 vehicles per year to South Korea that meet U.S. safety standards, not necessarily Korean standards, up from 25,000 previously.

- The U.S.-Korea Free Trade Agreement, known as KORUS, slashed tariffs on many goods traded between the two countries, increased U.S. access to South Korea's services market, and strengthened South Korea's intellectual property protections**.** The treaty was negotiated initially by the George W. Bush administration signed in 2007. However, the ratification faced opposition from democrats stalled in Congress. Due to rising tensions with North Korea, KORUS was given priority later during the Obama administration, when KORUS was seen as a way to support South Korea. The Obama administration negotiated and signed an amended treaty, which was ratified by Congress and came into force in March of 2012.
- Critics of the agreement cite the growth of the U.S. bilateral deficit in goods trade with South Korea as evidence that the treaty has not been good for the United States**.** The bilateral trade deficit in goods with South Korea more than doubled in the five years following the treaty's implementation, going from $13.2 billion in 2011, to $27.6 billion in 2016. However, these figures do not include trade in services. U.S. services exports to South Korea increased by 26 percent between 2011 and 2016 leading to a trade surplus in services of $10.1 billion in 2016. Although Korea is the sixth largest goods trading partner for the United States, it is small in the sense that only about 3 percent of overall U.S. trade is with South Korea. These bilateral statistics may under-represent the importance of U.S. trade with South Korea due to its important role in regional production chains. In contrast, trade with the United States

represents about 12 percent of South Korea's bilateral goods trade and the United States is Korea's second most important export market behind China ahead of Vietnam and Japan.

- Bilateral trade deficit statistics can be misleading and are poor indicators of the benefits of different trade relationships. We can expect the bilateral U.S. trade deficit to increase when the U.S. economy speeds up relative to trading partners. In the case of South Korea, many observers have noted that Korean economic growth as measured by real gross domestic product (GDP) slowed after 2010 just as U.S. growth began to pick up after the Great Recession. It is hard to identify any one cause for a persistent current account imbalance, and South Korea maintains an unusually large current account surplus with the world as a whole, a situation the International Monetary Fund attributes largely to South Korea's tight fiscal policy. However, the U.S. goods trade balance with South Korea has roughly tracked how fast South Korea's economy is growing relative to the United States meaning Korean demand for goods from the U.S. and elsewhere may have declined in recent years due to sluggish income growth relative to its trading partners.
- The more appropriate question to ask is what would have happened to the trade balance if the deal had not been in place — given all the other economic circumstances. The independent United States International Trade Commission (USITC) used economic models to try to answer that question last year. In a 2016 report, the agency concluded that our $28 billion trade deficit with South Korea would have been $16 billion larger in 2015 if KORUS were not in effect. Given the decline in South Korea's rate of economic growth relative to that of the United States, the USITC's results suggest that the U.S. trade balance with South Korea could have been much worse without the preferential access that KORUS gives U.S. exports. South Korea's bilateral surplus in goods trade with the United States declined between 2011 and 2016 by close to one-third as a share of its overall goods

trade surplus, despite its slowing relative growth and the large number of free trade agreements it signed with other countries in the years shortly before and after KORUS went into effect.

We calculate that the U.S. bilateral trade balance with South Korea has increased relative to the U.S. trade balance with the rest of the world for fully half of all disaggregate (HS 10-digit) goods categories traded between the U.S. and South Korea in 2011, and increased in an absolute sense in more than 40 percent of these goods categories. The first statistic includes goods where the U.S. bilateral trade balance with South Korea may have worsened, but not as much as the U.S. trade balance with the rest of the world (especially given that the overall U.S. trade deficit expanded during the period). The second statistic includes only categories where the U.S. bilateral trade balance with South Korea improved (comparing the level of the bilateral trade balance in 2011 to the level in 2016).

- KORUS may have caused U.S. importers to buy more from South Korea and less from other suppliers with little net effect on the overall U.S. trade deficit but a big apparent effect on the U.S. bilateral trade deficit with South Korea. This is known as trade diversion and occurs when countries that form a new trade agreement begin to take advantage of lower tariffs by buying more goods from each other and less from outside trading partners. It does not mean there is increased import competition for U.S. industry or a new threat to U.S. jobs. Rather, it suggests that some U.S. importers have found Korean products to be less expensive than those they already imported from other countries and, as a result, have replaced their source for imports. We calculate that for roughly one-third of the categories for which the U.S. trade balance with South Korea worsened, the trade balance with the rest of the world exempting South Korea improved or stayed the same suggesting trade diversion at work. Trade diversion may be particularly likely for trade in intermediate goods or goods whose production involves metals or textiles,

where regional production chains can reorganize across countries in to changes in tariffs.

- The overall trade figures can mask the ways in which a reduction in tariffs has been helpful for different goods and industries. The U.S. Department of Commerce estimates that U.S. exports to South Korea supported nearly 360,000 U.S. jobs in 2015 and that this number has increased since 2013, the earliest year that estimates are available, and U.S. exporting firms pay higher salaries between 12 and 20 percent more on average than non-exporters. The United States Trade Representative highlights passenger vehicles, pharmaceuticals, machinery, beef, lemons, almonds, fresh cheese, distilled spirits, intellectual property, and business and management services as a sample of the products whose exports have grown substantially since KORUS took effect. We calculate that between 2011 and 2016, exports grew for more than 40 percent of goods that the U.S. exported to South Korea in 2011 and that the U.S. began exporting about 1,000 new goods to South Korea. The Korus Free Trade Agreement (FTA) is a comprehensive and wide-open trade agreement. Therefore, it is not easy to analyze all the details simply.

To discuss the contents of KORUS FTA in a more efficient way, I have divided its contents into Wide sections.

The first is the removal of the tariff wall. The first is the elimination of tariffs, which relates to the elimination of tariffs. The second is domestic income and the third is national gross income and trade balance. The fifth attracts investment in the analysis of each section; I will also discuss the key issues as the pros and cons of the issues from the point of view of Korea. Regarding key issues, the depth of analysis will be adjusted based on the level. I will address the importance of each case in the next part of the study.

3.2.1 Before FTA

South Korea is a major economic partner of the United States. In 2006, trade between the two countries exceeded $75 billion making South Korea the seventh largest trading partner of the United States -- ahead of France and Italy -- and its seventh largest export market. In 2006, the United States was Korea's third largest trading partner, the second largest export market, and the second largest supplier of FDI. Increased economic interaction between the United States and South Korea has been accompanied by many disagreements over trade and economic policies. Disputes have diminished considerably since the late 1980s and early 1990s in part because South Korea enacted a series of comprehensive market-oriented reforms in return for receiving a $58 billion package from the International Monetary Fund (IMF) in the wake of the near-collapse. Full South Korean economy in 1997. In recent years, the United States and South Korea appear to have become more skilled in managing their trade disputes, becoming less acute than they were in the 1980s and 1990s. This is partly due to quarterly business-level bilateral trade meetings held since early 2001. Strategic factors have become issues on the bilateral economic front between the United States and South Korea. In the FTA talks, South Korean officials tried to secure preferential customs treatment of goods manufactured by South Korean companies in the Kaesong industrial zone inside North Korea. In 2003, China overtook the United States as South Korea's largest trading partner. Many South Korean exports to China are believed to be intermediate goods that are integrated into products sent to the United States[61].

Since 2000, South Korea has become the seventh largest trading partner of the United States ahead of Western European countries such as France and Italy. Trade flows in 2006 exceeded $75 billion, the highest level ever for bilateral trade between the United States and Korea. South Korea was the seventh largest export market in the United States and the seventh largest exporter of imports. For some Western

61 - https://www.everycrsreport.com/reports/RL30566.html

states and U.S. sectors, the South Korean market is more important. Major U.S. exports to South Korea, which include semiconductors, machinery (especially semiconductor production machines), aircraft and agricultural products. South Korea is among the largest markets for agricultural products and beef in the United States. U.S. exports for 2006 hit an all-time high of more than $30 billion, in part due to a weaker U.S. dollar, which fell by more than 5 percent against the Korean won in 2006.

Table 3-1. Annual U.S.-South Korea Merchandise Trade before the FTA[62]

(billion dollor)

Year	U.S. Exports	U.S. Imports	Trade balance	Total trade
1990	14.40	18.49	-4.09	32.89
1995	25.38	24.18	1.20	49.56
2000	26.30	39.83	-13.53	66.13
2003	22.52	36.93	-14.41	59.45
2004	24.99	45.06	-20.07	70.05
2005	26.21	43.15	-16.94	69.36
2006	30.79	44.71	-13.92	75.50
Major U.S. Export Items	Semiconductor circuits; aircraft & aircraft parts; chemical vapor deposition (cvd) equipment; corn			
Major U.S. Import Items	Cars & motor vehicle parts; cellular phones; semiconductor circuits and products; petroleum products			

South Korea is far more dependent economically on the United States than the United States is on South Korea. Economic relations between the United States and

62 - Sources: 1990 & 1995 data from Global Trade Information Services. 2000-2006 data from U.S. International Trade Commission.

the Republic of Korea (ROK) have progressed to such an extent that the two sides announced on Feb. 2, 2006 their intention to start negotiations to form a bilateral free trade agreement. South Korea and the United States ended seven rounds of negotiations that ended on February 14, 2007 with the signing of a free trade agreement between the two countries, including several areas. Industrial tariffs, customs administration, anti-corruption measures, foreign investment, trade in automobiles, pharmaceuticals, agricultural products and above anti-dumping measures. The South Korean economy was in a major financial crisis before the signing of the Free Trade Agreement with the United States, and the 1997 financial crisis in South Korea was a major event in the country's history.

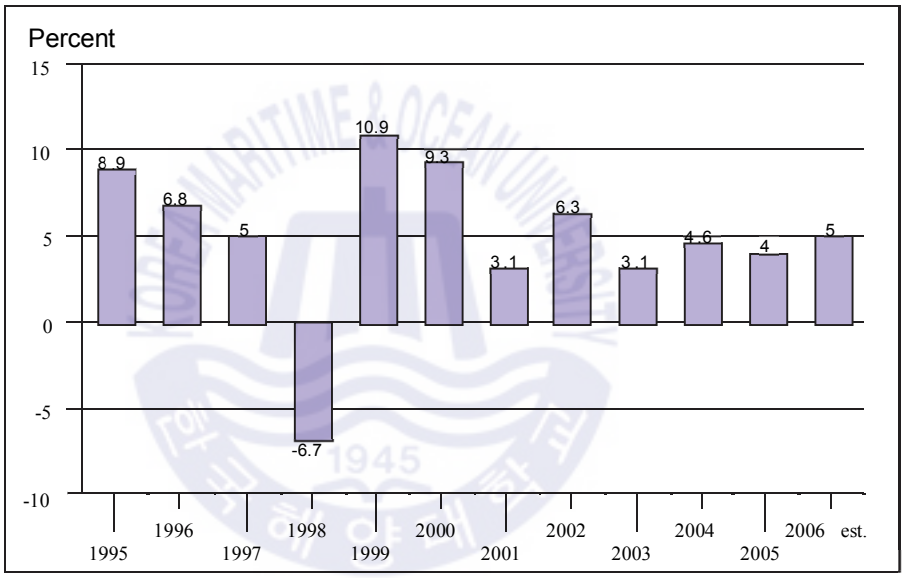
During the autumn of 1997 - driven in part by the bankruptcy of six of the country's 30 largest industrial conglomerates (Chaebol) and a sharp increase in payments on short-term external debt -- investors lost confidence in the economy and fled the country's capital. Korean Win lost half its value within a few days, dropping from 900 to 1,900 won to the dollar. In a futile attempt to shore up the currency, the government's foreign exchange reserves have fallen to $4 billion, an amount not enough to move the country to another day. In December 1997, barely a year after joining the Organization for Economic Cooperation and Development, Seoul turned to the International Monetary Fund for economic assistance.

Around the same time, South Koreans elected long-time democratic activist Kim Dae-jung to the presidency, the first time since the early 1960s that an opposition leader had won the country's highest office. After negotiating for weeks on the details, South Korea and the International Monetary Fund agreed on 4 December 1997 a $58 billion support package. In return, Seoul agreed to tighten its fiscal and monetary policies and engage in far-reaching market-oriented reforms for its financial, corporate and labor market policies. South Korea has also agreed to open

its economy further to foreign goods and investors. Kim's newly elected government has adopted most of its own structural reforms[63].

The following table shows the real GDP growth of the Republic of Korea in 1995-2005 before the signing of the Free Trade Agreement with the United States.

Figure 3-1. GDP growth of the Republic of Korea in 1995-2005 before the signing of the Free Trade Agreement with the United[64]



Source: International Trade Commission.

The economy rebounded in 1999 and 2000 growing by over 10% and 9%, respectively, and enabling the South Korean government to retire many of the debts it incurred in 1997.[65] In 2001, however, growth slowed considerably dragged down by a combination of internal and external developments, including a decline in

63 Economist Intelligence Unit, *South Korea Country Report*, February 2007.

64 Sources: 1195 & 2005 data from Global Trade Information Services. 2000-2006 data from U.S. International Trade Commission.

65 In August 2001, Seoul paid off the last of the $19.5 billion it had borrowed from the IMF.

consumer and business confidence, the bursting of Korea's stock market bubble, rising oil prices, and a sharp falloff in exports to the United States and Japan, which entered economic downturns of their own. The government responded by lowering interest rates, unveiling an economic stimulus package, and easing the rules on the use of credit cards. These measures boosted consumer spending, which helped to double the growth rate from 3.1% in 2001 to 6.3% in 2002. Growth also was boosted by rapid economic integration with China. However, domestic investment remained low.

In 2003, overuse of personal credit cards led to the near-collapse of many financial firms and a sharp slowdown in economic growth, which fell back to 3.1%. Until the late 1990s, the consumer sector of the economy had been largely untapped, with Korean lenders focusing on the corporate sector. Thus, when the government liberalized financial regulations and forced Korea's giant conglomerates to curtail their borrowing in the aftermath of the 1997 crisis, banks and other financial institutions turned to consumers—at times recklessly—as a new source of profit. The number of credit card holders behind in their payments increased sharply with an estimated 8% of the population in default in March 2004.[66]

In 2003 and 2004, all eight of Korea's specialized credit-card issuers registered massive losses that collectively were more than double their assets. In most cases, affiliated members of the company's respective chaebol groupings avoided insolvency only through bailouts and takeovers. Most of these moves appear to have been engineered, regulator ally enabled, and/or encouraged by the government, which feared a collapse of the financial system if the firms were allowed to fail. The government responded to the household debt crisis by tightening restrictions on credit card use and issuance, and by initiating a refinancing and forgiveness program for individual debtors.

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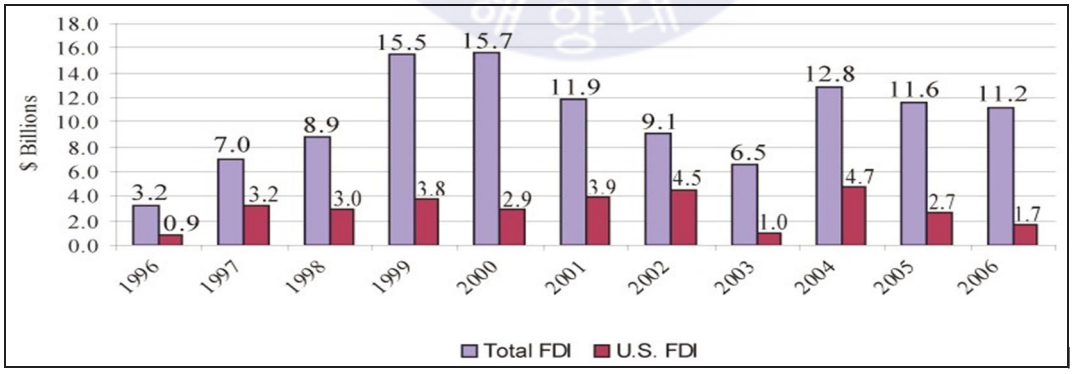
[66] Seung, S., (2004), ***South Korea Unveils Program to Help Ease Consumer Debt***, The Asian Wall Street Journal.

For 2004, South Korea's economy grew by 4.6%, below the 6% growth rate the government had expected.[67] Much of the growth was driven by a surge in exports—particularly to China—which rose by over 30% from 2003. A sharp rise in oil prices (South Korea imports all of its oil) and lackluster domestic demand contributed to the slower-than-expected growth rate.

In 2005, economic growth slowed to around 4%, due in part to a slowdown in export growth early in the year. The government responded by unveiling a $6.5 billion fiscal stimulus policy. Beginning in the late spring, South Korean domestic production and demand began to increase, indicating an improvement in the credit card problem despite rising energy prices, private spending rose by 3.2% in 2005 compared to a 0.5% contraction the year before. Toward the end of the year, the South Korean stock market and the *won* sharply appreciated in value, the latter against both the U.S. dollar and the Japanese *yen*. Despite this trend, South Korean exports continued to rise, albeit at a slower rate. Exports rose by just over 12% in 2005, compared with a 31% growth rate in 2004. South Korea's merchandise trade surplus in 2005 was about $23 billion[68].

Figure 3-2.*Foreign Direct Investment in the ROK, 1996-2006*

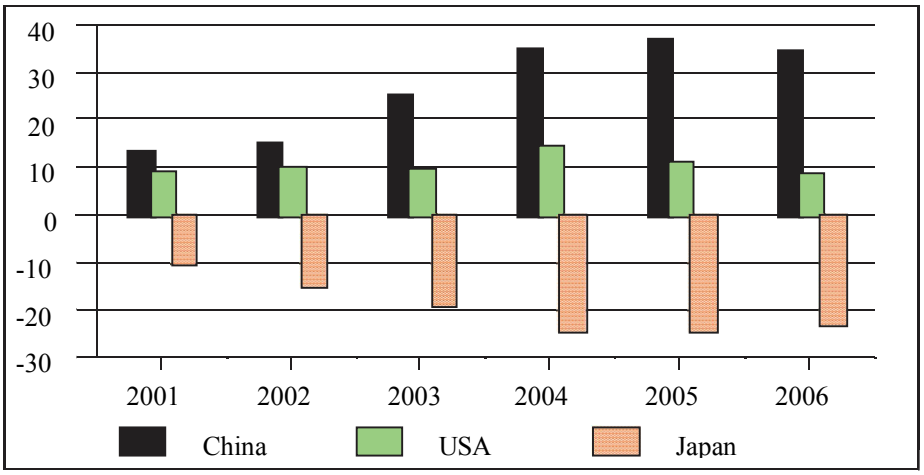


Source: ROK Ministry of Commerce, Industry, and Energy.

[67] Gordon Fairclough, "South Korea Forecasts Growth Of Near 6% on Export Strength," The Asian Wall Street Journal, April 26, 2004. 7 Ministry of Finance and Economy and the Korea Development Institute, Republic of Korea Economic Bulletin, Volume 28, No. 1, January 2006.

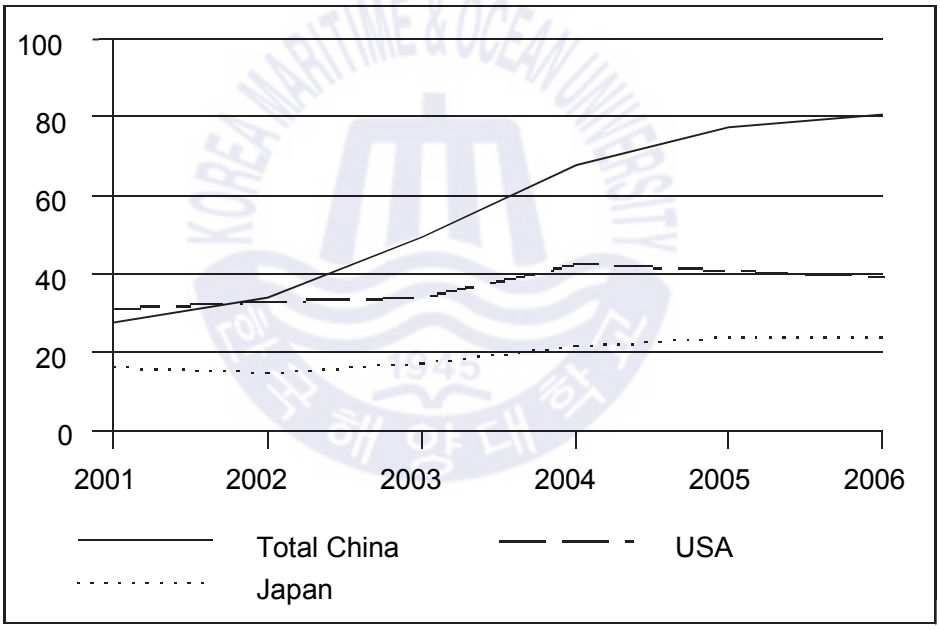
[68] - Andrew Ward, "Korea Moves to Win Back Foreign Business," Financial Times, March 5, 2004.

Figure 3-3. ROK Trade Balances with Major Partners



Source: Bank of Korea.

Figure 3-4, South Korean Exports to China, U.S., Japan, 2001-2006[69]



Source: Bank of Korea.

Major U.S. Trade Disputes with South Korea:

Given the disparities in size and economic dependence, it is not surprising that the United States typically sets the agenda of U.S.-ROK trade talks. Since the 1997 financial crisis, these complaints have tended to be directed at regulations

[69] **Source:** ROK Ministry of Commerce, Industry, and Energy

promulgated by "domestic" ministries, such as the Ministry of Health and Welfare, the Korean Food and Drug Administration, and the Ministry of Environment that traditionally have had little contact with foreign governments or firms. One element of the U.S. strategy toward Korea appears to be attempting to raise the pressure on these ministries by pushing the Korean Cabinet to focus on the issue.

In general, U.S. exporters and trade negotiators identify the lack of transparency of Korea's trading and regulatory systems as the most significant barriers to trade with Korea in almost every major product sector. In 2004, the transparency issue became a stand-alone item in the quarterly trade action meetings. Many U.S. government officials also complain that Seoul continues to use government regulations and standard-setting powers to discriminate against foreign firms in politically sensitive industries, such as automobiles and telecommunications. Another major cross-sectoral complaint is that restrictions in the Korean labor market, such as mandatory severance pay raise the cost of investing and doing business. Finally, the United States and other countries have pressed South Korea to open further its agricultural market, which is the most, closed in the OECD .[70]

The following is a brief description of several major sector-specific conflicts between the United States and South Korea.

1- Despite South Korea's place as one of the top destinations for U.S. agricultural exports, U.S. government and agricultural industry, officials contend that Seoul retains a number of tariff and non-tariff barriers that have stunted U.S. bilateral exports. South Korean agricultural tariffs are compared to the United States and most OECD members according to USTR, South Korea's average applied agricultural tariffs are 52% more than four times the U.S.'s average. The completion of a comprehensive FTA therefore is to expand U.S. agricultural exporter's access to the Korean market by one estimate. U.S. agricultural exports

[70] USTR., (2006), ***FTA: United States & Republic of Korea Economic & Strategic Benefits***, United States Trade Representative.

will increase by more than 200% within four years after a hypothetical FTA is implemented. South Korea's farmers while shrinking in terms of population and contribution to GDP remain a politically powerful force in South Korea. At the February 2006 launch of the FTA, ROK Hyunchong Kim said Seoul plans to spend over $100 million in adjustment assistance to South Korean farmers over the coming decade. At one point during the FTA talks, Korea reportedly requested that 284 agricultural tariff lines be excluded from market access commitments .[71]

2- South Korea Beef Ban

The two sides agreed to continue the talks in the coming days. The issue arose in December 2003 when South Korea (along with Japan and other countries) banned all imports of American beef after the United States reported the discovery of a cow with bovine spongiform encephalopathy (BSE or "mad cow disease"). South Korea was formerly the third largest foreign buyer of U.S. beef. United States exporters almost during the bilateral talks in January 2006. South Korea agreed to lift the ban at the end of March 2006 by allowing the import of US beef without bones of livestock less than 30 months old. The unworked beef accounted for about half of the US bilateral beef exports in 2003.

Other issues:

Auto Trade

The used coalition has been fighting for a new Iraq since the 1991-1991 Iraq-Iraq peace talks. The First Arab States said in a statement for years, U.S. officials have argued that Korean taxes and Korea's "unique" certification practices discriminate against imports. According to press reports, U.S. officials included cars throughout 2005 as one of the major outstanding bilateral issues on which progress would be needed in the FTA between the two countries.

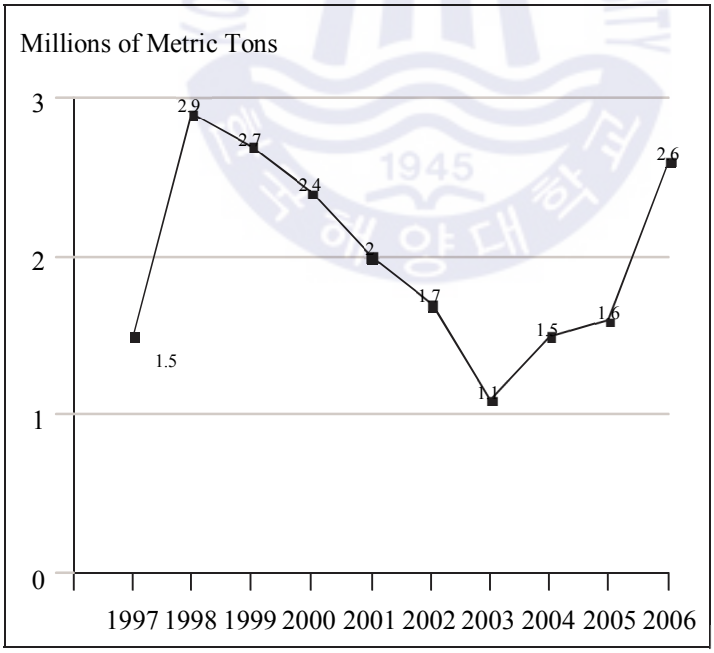
[71] Specialist in Asian Affairs, (2006), ***Korea Seeks Total Exclusion of Rice from Bilateral FTA***, Congressional Research Service reports press.

Table 3-2. Reciprocal U.S.-ROK Automotive Sales *Vehicular Units, including Light Trucks*

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Korean Auto Companies' Sales in the United State	473,400	618,300	650,300	637,700	688,670	730,863a	749,821a
Market Share	*2.7%*	*3.6%*	*3.9%*	*3.8%*	*4.1%*	*4.3%*	*4.6%*
Total Foreign Auto Companies' Sales in Korea	4,400	7,700	16,100	19,500	23,345	30,901	36,962c
Market Share	*0.3%*	*0.5%*	*1.3%*	*1.9%*	*2.1%*	*3.3%*	*4.2%*c
Sales of "U.S. Brands" in Korea	1,700	2,000	4,700	4,100	5,415	5,795	6,576c
Market Share	*0.1%*	*0.1%*	*0.4%*	*0.4%*	*0.5%*	*0.7%*	*0.8%*c

Source: U.S. Department of Commerce.

Figure 3-5.Steel Imports from Korea, 1997-2006



Source: U.S. Census Bureau.

3.2.2 After FTA

3.2.2.1 Tariffs

Traditionally, tariffs have been the core of economic profit in any FTA. Thus, the economy usually takes the majority of the weight during the negotiations. It is known that FTA negotiations are conducted with economic analysis at their core. Tariffs become a type of primary indicator to the members of the FTA because they can be analyzed quantitatively, but also because they are relatively easy for the participating nations to cross correlate. Tariffs are related to other areas of the FTA that they ultimately determine how inclusive or open it will be. Thus, there is a tendency for the whole structure to be built toward the end of the negotiation process. The level of tariff reduction in the KORUS FTA is incomparable by both international and domestic standards. There are few international trade agreements that are as open as the KORUS FTA. It is true that there are some international agreements, such as the CER (Closer Economic Relations) of Australia and New Zealand and the US-Chile FTA, in which tariffs are completely removed, but with the exception of those agreements, it is rare to find international trade agreements that eliminate all tariffs. In the KORUS FTA, tariffs on textiles are completely eliminated. Tariffs on agricultural products, with the exception of rice, reached a 99.9% tariff reduction ,. [72]

In the case of the KORUS FTA, Korea focused primarily on exceptions to the opening of its rice market, and the US focused primarily on entering the Korean market with its items of interest. Both nations agreed to eliminate tariffs on almost all items other than rice. For production such as oranges, potatoes, grapes and other agricultural products, they agreed to apply a seasonal tariff so that the current tariffs would be maintained during specific circulation seasons and that tariffs would be eliminated during the seasons when the Korean market would not suffer any

[72] Cheong, K., (2012) "Economic Assessment of the KOREA–US FTA" ,***Korean Social Sciences Review*** , 2012,(2), PP. 33-94.

damage. With the exception of these items, it is true that tariffs on all agricultural products will be removed because of the KORUS FTA. In the case of the manufacturing industry, the majority of the products received five or more years to collect duty, whereas tariffs on the majority of agricultural products, which have a history of trade revenue are subject to elimination systematically over five or more years. In addition, the manufacturing industry will face immediate tariff elimination on 84% of its products, and tariffs on the rest of the products will be eliminated within ten years of the implementation of the policy. The agricultural product concession negotiation was one of the most challenging points in the negotiation for both sides. Korea considered the sensitivity of the agriculture industry opening early on and therefore set the main goals of the concession negotiation as the following. The first secures as much exception treatment as possible.

The second secures the longest possible policy implementation period for the agriculture industry. Approximately 10% of products, including rice received an exceptional treatment or of at least 15 years of time before the complete elimination of the tariff (products with an average trade revenue of 25% or higher), but those that are relatively less sensitive were categorized for either immediate tariff elimination or for elimination over 10 years. However, most of the agricultural products assigned to the category of immediate tariff elimination were those that do not critically affect or have no effect on the domestic market. The contents of the agriculture negotiations agreement clearly show the compromises of the two nations. These compromises included import quota (TQR) management and agricultural product safeguard methods. Rice or rice-related products were completely eliminated from the list of items subject to tariff liberalization. For some of the items, i.e., those with either large external price differences or tariffs high enough that the tariff elimination is expected to have a critical impact on the economy, tariffs were maintained at their current levels. However, the American position in the agriculture industry, Korea decided to allow import quotas on some products. Examples of these products are soybeans, potatoes, powdered milk,

natural honey, and oranges. Seasonal tariffs were only to be applied to those products with a high level of sensitivity and those products that have distinct seasons of harvesting and distribution. This is meant to protect domestic products. Examples of these products are grapes (May-October 15th), oranges (September-February), and potatoes for potato chips (May November).[73]

Furthermore, the parties introduced a tri-elimination of tariffs (elimination of tariffs in three intervals) to minimize the impact of the FTA opening. This is applied in cases in which the variety and use of the main products are specifically classified by the participating nations. When there were worries that American apples might replace Korean apples, the Korean government decided to eliminate tariffs on American Fuji apples within 20 years (a safeguard of 23 years). For products with a low level of import probability, the Korean government decided to eliminate tariffs within 10 years. In addition, American Asian pears or similar species were targeted for tariff elimination within 20 years, and tariffs on other species were to be eliminated within 10 years. Because potatoes and soybeans are highly competitive, the tariffs on edible potatoes and soybeans were to be maintained at their current levels yet tariffs on potatoes and soybeans used for food processing were subject to immediate elimination to reflect the understanding between the producer and the consumer.

According to the main item-by-item concessions, tariffs on beef (40%) are to be eliminated within 15 years, while tariffs on pork (22.5~25%) are to be eliminated by 2014. However, for frozen pork, which has a very high-expected level of future imports, the tariffs are subject to elimination within 10 years. The tariffs for some items were kept at their current levels in exchange for import quotas. For instance, tariffs on natural honey (243%) were kept at their current levels, but an import quota (200 tons with a 3% annual increase) was set. Skim milk, dry whole milk (176%),

[73] Cheong, K., (2012) "Economic Assessment of the KOREA–US FTA" ,***Korean Social Sciences Review*** , 2012,(2), PP. 33-94.

and condensed milk (89%) are also to be increased by 3% annually from the initial 5,000 tons[74]. The aggregate quantity of originating goods of the United States described that shall be permitted to enter free of duty in a particular year is specified below[75]:

Table 3-3. The amount of goods entering the United States per ton[76]

Year	Quantity Metric Tons
1	1.530
2	1.652
3	1.785
4	1.927
5	2.082
6	2.248
7	2.248
8	2.622
9	2.832
10	3.058
11	3.303
12	Unlimited

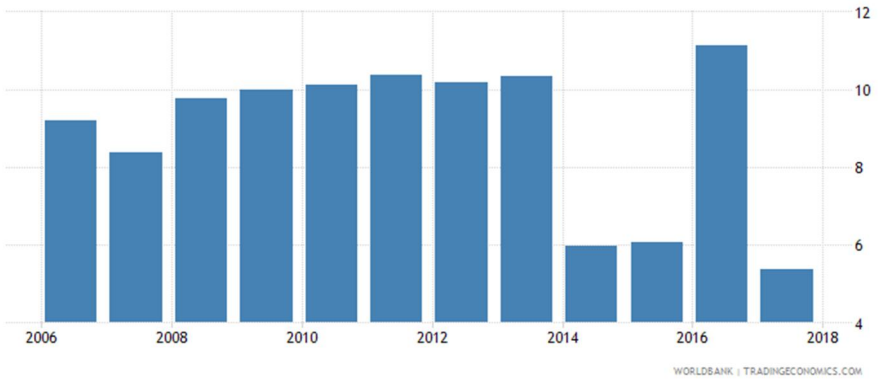
[74] - Wei, Dan (2018)7, 'Estimating Economic Impacts of the U.S.-South Korea Free Trade Agreement' University of South8ern California,
[75] -See the original conv9ention version
[76] - See the original conv9ention version

Table 3-4. The amount of goods entering the United States per ton[77]

Year	Quantity Metric Tons
1	4,000
2	4,360
3	4,752
4	5,180
5	5,646
6	6,154
7	6,708
8	7,312
9	7,970
10	8,688
11	9,469
12	10,322
13	11,251
14	12,263
15	Unlimited

[77] - Tariff rate, applied, simple mean, all products (%) in South Korea was reported at 5.36 % in 2017, according to the World Bank collection of development indicators, compiled from officially recognized sources. South Korea - Tariff rate, applied, simple mean, all products actual values, historical data, forecasts and projections were sourced from the World Bank on March of 2019.

Figure 3-6. Tariff Rate[78]



Source: World Bank/Trading Economics.com

3.2.2.2 South Korea's GDP

The South Korean economy advanced 2.3 percent year-on-year in the fourth quarter of 2019 following a 2 percent growth in the previous period and surpassing the advance estimate of 2.2 percent. It was the fastest expansion in a year driven by services (3 percent vs 2.7 percent in Q3) and construction (1 percent vs -3.5 percent). Thus, utilities shrank 0.4 percent less than a 1.9 percent contraction in the prior quarter. On the other hand, growth slowed in manufacturing (1.7 percent vs 1.8 percent) and agriculture, forestry & finishing (2.9 percent vs 4.2 percent).

On the expenditure side, final consumption growth edged up to 3.1 percent (vs 3 percent), while gross fixed investment climbed 0.5 percent after contracting 2.1 percent in the prior period. Meantime, exports went up 3.7 percent (vs 1.8 percent in Q3) and imports rose at a softer 1.2 percent (vs 2.3 percent in Q3). Considering full 2019, the economy grew 2 percent, the slowest pace in 10 years.[79]

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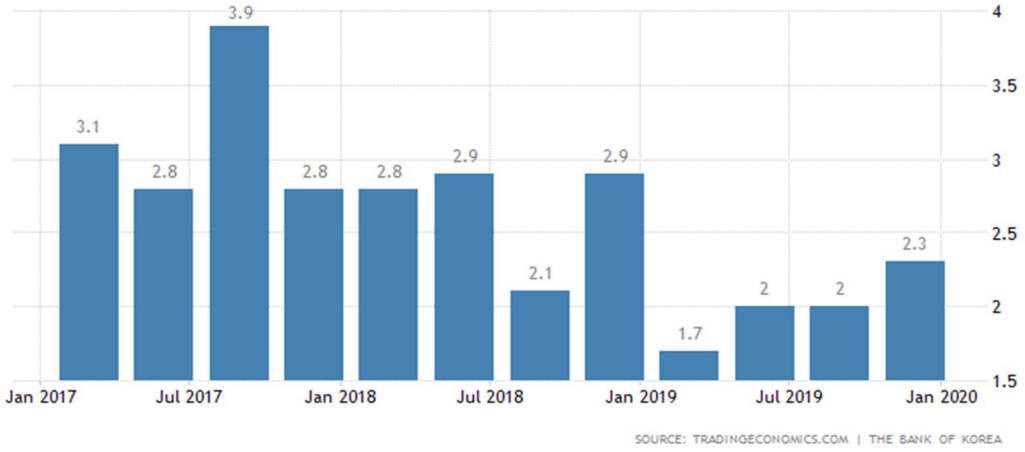
78 - Data, forecasts and projections were sourced from the World Bank on March of 2019.

79 -https://tradingeconomics.com/south-korea/gdp-growth-annual

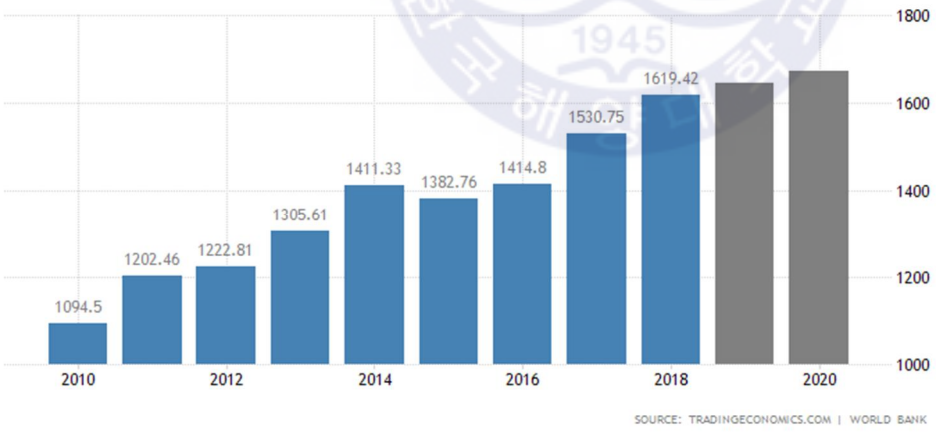
Figure 3-7. South Korea's GDP 1[80]



Source: World Bank/Trading Economics.com

The Gross Domestic Product (GDP) in South Korea was worth 1619.42 billion US dollars in 2018. The GDP value of South Korea represents 2.61 percent of the world economy. South Korea GDP - data, historical chart, and calendar of releases it was last updated on February of 2020 from its official source[81].

Figure 3-8. South Korea's GDP 2[82]



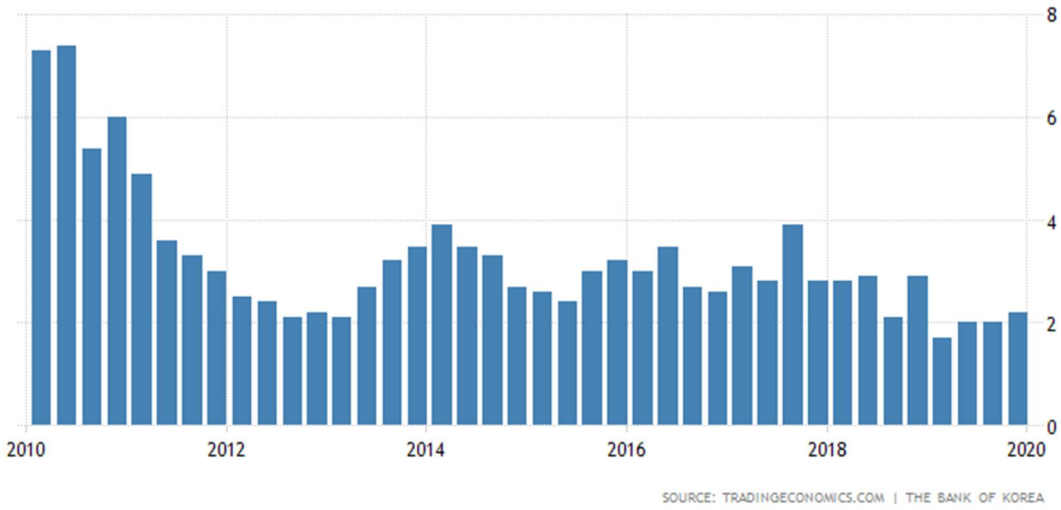
Source: World Bank/Trading Economics.com

80 -- https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png

81 - https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png.

82 -- https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png

Figure 3-9. South Korea's GDP 3[83]



Source: World Bank/Trading Economics.com

GDP Constant Prices in South Korea increased to 467045.10 KRW Billion in the fourth quarter of 2019 from 461705.90 KRW Billion in the third quarter of 2019. South Korea GDP Constant Prices - data, historical chart, and calendar of releases and it was last updated on February of 2020 from its official source.[84]

3.2.2.3 South Korea's GROSS National Product

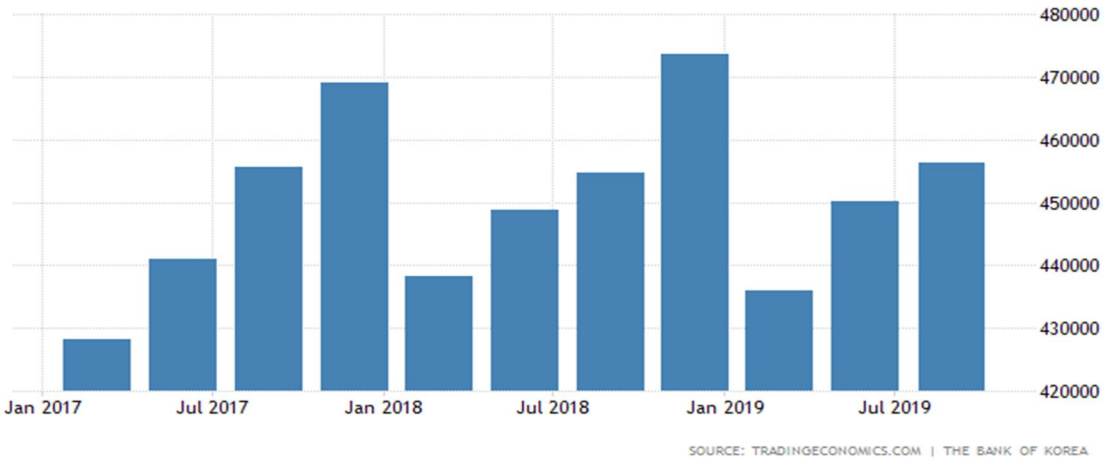
Gross National Product in South Korea increased to 456451.80 KRW Billion in the third quarter of 2019 from 450227.40 KRW Billion in the second quarter of 2019. South Korea Gross National Income - data, historical chart, and calendar of releases and it was last updated on February of 2020 from its official source[85].

83 -- https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png

84 -- https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png.

85 - https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png.

Figure 3-10.South Korea's Gross National Product[86]



Source: tradingeconomics.com

3.2.2.4 Attracting investment

The issue of investment under the South Korea-Us Free Trade Agreement is mentioned in Chapter 11, where paragraph 11.1 refers:

1. This Chapter applies to measures adopted or maintained by a Party relating to:

(a) Investors of the other Party;

(b) Covered investments; and

(c) With respect to Articles 11.8 and 11.10, all investments in the territory of the Party.

2. This chapter does not bind either Party in relation to any act or fact that took place or any situation that ceased to exist before the date of entry into force of this Agreement.

3. This chapter is maintained by:

(a) Central, regional, or local governments and authorities

(b) Non-governmental bodies in the exercise of powers delegated by central, regional, local governments or authorities" [87]. Paragraph 11.3 is the same Convention on Investment Facilitation between the two countries and states:

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[86] - https://d3fy651gv2fhd3.cloudfront.net/charts/south-korea-gdp-growth-annual.png.

[87] - See supplements to this Study free trade agreement between Korea and the United States.

1. “Each Party shall accord to investors of the other Party treatment no less favorable than that it accords like circumstances to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments in its territory.
2. Each Party shall accord to covered investments treatment no less favorable than that it accords, in like circumstances, to investments in its territory of its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.
3. The treatment accorded by a party under paragraphs one and two means with respect to a regional level of government, treatment no less favorable than the most favorable treatment accorded that regional level of government to investors, and to investments of investors, of the party of which it forms a part.
4. Each Party shall accord to investors of the other party treatment no less favorable than that it accords to investors of any non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments in its territory.
5. Each Party shall accord to covered investments treatment no less favorable than that it accords to investments in its territory of investors of any non-party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments”[88].

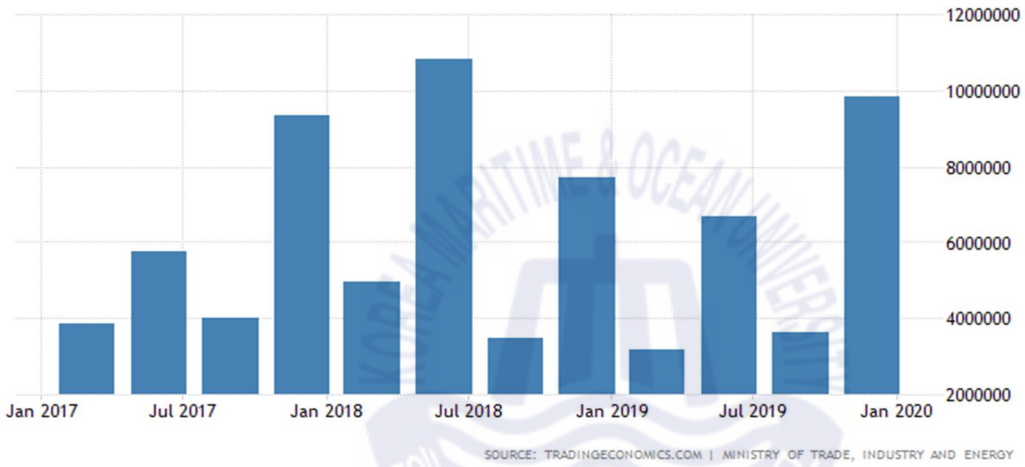
According to data from the Korean Ministry of Commerce and Industry, FDI inflows to South Korea fell by 13.3% annually in 2018 on the back of the escalating U.S.-China trade dispute.

According to the data, FDI flows declined by 35.7% and 38.1% annually during the first and second quarters of 2018, on the back of the continuing trade dispute

[88] - See supplements to this Study free trade agreement between Korea and the United States.

between Beijing and Washington, while FDI performance improved during the second half of 2019 thanks to investment by foreign technology companies. In November 2018, the U.S. semiconductor equipment manufacturer Lam Research announced its intention to invest $140 million to build a technology center in Yongin, about 50 kilometers southeast of Seoul. This comes as South Korea seeks to expand incentives for foreign direct investment as part of measures to counter growing uncertainty arising from the escalating Sino-U.S. trade conflict.[89]

Figure 3-11. South Korea Foreign Direct Investment[90]



Source: Tradingeconomics.com

South Korea's Ministry of Commerce said it would expand cash incentives for companies investing in the spare parts, materials and equipment sectors while South Korea plans to simplify procedures for foreign companies to obtain factory permits. All these investment policies came after the amendment of the Free Trade Agreement between South Korea and the United States, which provides for the promotion of investments in both countries[91]. Foreign Direct Investment in South Korea increased by 9844064 USD 1000 in the fourth quarter of 2019. South Korea

[89] -https://al-ain.com/article/south-korea-foreign-investment-declined-2019
[90] -https://tradingeconomics.com/south-korea/foreign-direct-investmen
[91] -https://al-ain.com/article/south-korea-foreign-investment-declined-2019

Foreign Direct Investment - values, historical data and charts and it was last updated on March of 2020.[92]

In the same vein, U.S. Company's investment in South Korea increased due to the amendment and change in the free trade agreement between the two countries, with U.S Foreign Direct Investment in Korea rising 21.5 percent to $4.71 billion in 2019[93].The following chart shows how investment in South Korea increased between 1/10/2018-1/92019, i.e. after the amendment of the trade agreement between the two countries:[94]

3.2.2.5 Trade balance (Exports + Imports):

After the signing of the 2018 South Korea-U.S. Free Trade Agreement (FTA) show that South Korea's trade surplus with the United States has declined by nearly 6.8 percent since the amended free trade agreement between the two countries came into force.[95]

Asia's fourth largest economy with the United States reached $10 billion from January to October down 6.8 percent from the previous year according to data compiled by the Ministry of Commerce, Industry and Energy.

The revised FREE Trade Agreement came into effect January 1 to reflect Washington's demands in the automotive sector after 2018, and the original agreement actually began in 2012. Under the new agreement, Washington was able to extend the 25% tariff on Korean pick-up trucks for another 20 years until 2041. South Korea also raised the annual limit on imports of U.S. vehicles of 25,000 units twice.

However, experts said, the decline in trade surplus exchanges with the world's largest economy does not necessarily mean that the revised FREE Trade Agreement

92 -https://tradingeconomics.com/south-korea/foreign-direct-investment

93 -http://overseas.mofa.go.kr/us-newyork-en/wpge/m_4253/contents.do

94 - https://www.ceicdata.com/en/indicator/korea/foreign-direct-investment

95 - J. Whalley. (2014). "Korea and the Trans-Pacific Partnership: A Numerical Simulation Assessment of the Effects Invovled". The World Economy, 37(1), pp.179-182.

has had a negative impact on South Korea. The data also showed that South Korea's exports to the United States increased by 2.2% to $60.7 billion during the period, and imports also rose 4.1% to $50.7 billion.

On the other hand, the country's total exports decreased by 10.3% during this period. Experts added that the amended FTA would support South Korea in future negotiations with Washington.

At the same time, the United States has imposed duties of up to 25% on imported vehicles and spare parts for national security reasons as defined in Section 232 of the Trade Expansion Act. South Korea has been making great efforts to obtain tariff relief because it made concessions on cars in the revised bilateral free trade agreement that came into force in January 2018.[96]

Figure 3-12. South Korea's Trade Balance Data[97]

Source: Tradingeconomics.com

A preliminary estimate shows that South Korea's trade surplus widened to $4.1 billion in February 2020 from $2.8 billion in the same month of the previous year. This was the largest trade surplus since October last year, when exports rose by 4.5 percent, the first month of increase in 15 months. There was an increase in sales of

96 - https://ar.yna.co.kr/view/AAR2019

97 -https://tradingeconomics.com/south-korea/balance-of-trade

semiconductors (9.4 per cent), computers (89.2 per cent), wireless devices (8.0 percent) and textiles (19.8 percent). Meanwhile, imports rose by 1.4 percent softer.[98]

Imports to South Korea increased by 1.4 percent year-on-year to $37.2 billion in February 2020, rebounding from a 5.3 percent drop in the previous month and compared to market expectations for a steady reading. South Korea's imports - data, historical chart, forecasts and calendar issues updated in March 2020.[99]

98 - https://tradingeconomics.com/south-korea/balance-of-trade

99 -https://tradingeconomics.com/south-korea/balance-of-trade

Ch.4 Empirical Analysis on FTA

4.1 Estimation Model

The analysis model in this study depends on some elements of the Korean economy. These elements are Gross Domestic Product and annual growth rates, GDP per capita, annual income and annual growth rates, and trade balance (E –M). Therefore, the study examines the commercial returns issued and received from Korea to the United States. To see the extent of reflection elements of economic well-being in South Korea, this study answers the following questions:

1. What are the impacts of a free trade agreement in terms of both tariff (exported & imported commodities) reduction/elimination and the removal of other non-tariff trade barriers?
2. What is the effect of FTA on national economic indicators (such as GDP, gross output and imports)?
3. How has it affected the free trade agreement between Korea and the United States on national income growth of the Korean citizen and thus the extent of reflection on the well-being?

Our analysis indicates that the US-Korea FTA generates different outcomes, especially for Korea and Korean people, according to table; it shows that GDP gains are estimated to be $368 million in year 2020. So the GDP per capita estimated to be $ U.S Dollars, so it is important to notice annual growth rates of GDP, which estimated to be in the year 2020, and total gross output (sales revenue) is estimated to of $143 million. Trade balance shows estimated value $, which indicates that economic welfare is raised. This includes three advanced manufacturing sectors estimated to incur gross output reductions in excess of $175 million each.

The sectors that are estimated to gain the most are primary sectors in agricultural and mining, construction, and primary manufacturing. These results indicate the

continued shift in comparative advantage away from US manufacturing with respect to rising economies such as:

4.2 Data Sources

To analyze the macroeconomic impacts of the tariff reduction or elimination under US-Korea FTA, the following data are used:

•Import tariff by commodity type before and after the establishment of the FTA. These include the U.S. tariffs on imports from South Korea and the tariffs on imports from U.S. in South Korea. GDP- per capita levels affected by Korus FTA.

•The phase-in schedule of the tariff reduction or elimination by commodity type at the10-digit HTS level.

•Level of imports and exports by commodity type at the 10-digit HTS level

4.3 The Results of Estimation and the Interpretation of the Results

4.3.1 GDP analysis:

Table 4-1. The Data Belong to Increasing GDP from year 2010-2018

Year	Series Label	US dollars at current prices in millions	US dollars at current prices per capita	US dollars at constant prices (2010) in millions	US dollars at constant prices (2010) per capita
2010	Total GDP	1094499.35	22090.731	1094499.35	22090.731
2011	Total GDP	1202463.656	24152.572	1134795.408	22793.394
2012	Total GDP	1222807.256	24426.521	1160809.433	23188.067
2013	Total GDP	1305604.961	25932.79	1194428.853	23724.536
2014	Total GDP	1411333.882	27887.618	1234340.069	24390.263
2015	Total GDP	1382764.027	27207.399	1268781.072	24964.66
2016	Total GDP	1414804.116	27750.265	1305947.537	25615.129
2017	Total GDP	1530750.894	29958.092	1345945.687	26341.298
2018	Total GDP	1619928.235	31656.721	1382286.22	27012.709
	% increase	1.480063223	1.433031845		

Source: *World Development Indicators, Last Updated: 05/28/2020*

Table 4-2. GDP

Series Name	GDP (current US$)	GDP per capita growth (annual %)	GDP growth (annual %)	GDP (constant 2010 US$)	GDP per capita (current US$)
2010	1,094,499,338,702.72	5.967519429	6.496793586	1,094,499,338,702.72	22086.95292
2011	1,202,463,682,633.85	2.887463263	3.681688569	1,134,795,395,744.69	24079.78852
2012	1,222,807,284,485.31	1.756043816	2.292397846	1,160,809,420,956.16	24358.78218
2013	1,305,604,981,271.91	2.428866761	2.896204935	1,194,428,840,692.66	25890.01867
2014	1,411,333,926,201.24	2.694343122	3.341447761	1,234,340,056,450.31	27811.36638
2015	1,382,764,027,113.82	2.249661522	2.790236167	1,268,781,059,130.96	27105.07623
2016	1,414,804,158,515.26	2.521637425	2.929304795	1,305,947,523,530.33	27623.28869
2017	1,530,750,923,148.70	2.773601468	3.062768462	1,345,945,672,416.94	29803.23149
2018	1,619,423,701,169.63	2.181451612	2.668311402	1,381,859,694,254.89	31380.14645

Source: *World Development Indicators, Last Updated: 05/28/2020*

We note that the gross domestic product (GDP) before the agreement for the year 2010/2011 was approximately 109, 499, and 35. However GDP per capita was 22090.73, and after the entry into force of the agreement from 2012 to 2018, the GDP increased by 16,199,282,271. As for the GDP per capita increased to 31,656.7. With change rate between before the agreement in the GDP rate of 1.48, the percentage of change in per capita income increased by an amount of 1.43 and this is a positive indication of the well-being of Korean society.

On the other hand, analyzes indicate that the annual per capital income growth rate before the agreement in the period 2005-2010 was 3.6, whereas after the

agreement 2013-2018, it became about 2.6, it is clear that decline by 1. This indicates that the agreement between Korea and the United States did not play a major role in improving and raising the per capital income, and this is due to other economic and social reasons, although it was found with us in the previous table that GDP increased. See Table No. (7).

Table 4-3. Annual Average Growth Rate per capita, Annual Average Growth Rate

Period Label	Economy Label	Annual average growth rate per capita	Annual average growth rate
2005 - 2010	Korea, Republic of	3.63457	3.98306
2013 - 2018	Korea, Republic of	2.62722	2.96008

Source: *World Development Indicators, Last Updated: 05/28/2020*

Table 4-5 GNI

Series Name	GNI (current Bill.US$)	GNI (constant 2010 Bill. US$)	GNI per capita (constant 2010 US$)	GNI per capita, PPP (current international $)
2010	1095599454	1095599454	22109.1532	30400
2011	1209545570	1141320100	22855.36524	31410
2012	1235358697	1172417744	23355.00354	32430
2013	1314920388	1202802883	23851.46315	32850
2014	1415782905	1238164126	24398.92892	33690
2015	1386529374	1272271484	24939.19055	35860
2016	1418615579	1309539908	25568.06094	37420
2017	1530806566	1345995834	26206.10892	38650
2018	1618353425	1380935195	26758.87022	39630

Source: *World Development Indicators, Last Updated: 05/28/2020*

In order to interrupt numerical data from the table above, it is important to know what variables are. Thus, which it is depending on, such as income from foreign sources, added to gross domestic product like foreign direct investment,

foreign corporate presence, or foreign aid, will show a significant difference between GNI and GDP. The agreement increased the total income as the figures in the table (9) show that South Korea's gross national income was before the agreement (1095599454) in 2010 and became in 2018 (1618353425). The research findings, that there is an increase in the gross national income, compared to the base year 2010, showing that there is a continuous increase in the annual growth rate (2.76), and we also find that the GNI per Capital increased after the signing of free trade, as it reached in 2018 (26758.8), with an increase rate (2.41). Likewise, the purchasing power parity of the per capital gross national product rose in 2010 from (30400) to (39630), and this indicates that the indicators of gross national income after the agreement were positive indications, which in turn was reflected in the economic welfare of the Korean citizen.

4.3.2 Export- Import (Trade Balance) analysis:

By analyzing the export and import data for South Korea, it became clear that Korea's exports to the United States increased by (4.6) over the previous years as in table (Export and Imports analysis percent of change) after the agreement. Korea's imports from the United States after the agreement rose (5.35). Here it appears that the trade balance tends to favor South Korea by analyzing trade balance for both Korea and the U.S, which has positive effects on the Korean national income.

Korus FTA changed the trade balance in favor of South Korea, so that exports to the United States became more than imports, and this is what the figures show in the above table, and therefore it is reflected on the level of Korean individual income.

Table 4-6. Export- Import (Trade Balance)

	Korea, Republic of			United States of America		
	Imports	Exports	Trade Balance	Imports	Exports	Trade Balance
	United States	United States	surplus/deficit	Korea	Korea	surplus/deficit
2008	38555952.40	46500676.17	7944723.77	49823393.85	34806587.29	-15016806.56
2009	29160307.24	37802594.46	8642287.22	40543872.27	28639747.63	-11904124.63
2010	40588437.88	49991458.24	9403020.36	50607875.66	38820633.04	-11787242.62
2011	44814717.94	56421431.35	11606713.41	58605754.44	43461393.73	-15144360.71
2012	43652459.45	58806901.09	15154441.64	60997692.67	42282528.92	-18715163.75
2013	41762164.04	62326903.27	20564739.23	64611251.50	41686042.11	-22925209.39
2014	45531184.07	70598279.90	25067095.83	71745454.19	44470809.21	-27274644.98
2015	44208106.18	70117307.23	25909201.05	74045677.88	43444787.48	-30600890.40
2016	43397737.41	66748306.31	23350568.90	71887628.10	42260903.97	-29626724.13
2017	50908004.20	68852265.16	17944260.96	73419858.19	48350051.98	-25069806.21
2018	59080559.39	73043815.67	13963256.29	76200587.12	56504532.09	-19696055.03

Source: *World Development Indicators*

Figure 4.1Export- Import (Trade Balance)

Source: *World Development Indicators*

Table 4-7. Export and Imports Analysis (Percent of Change)

Period	The amount of export (Thousand Dollar)			The amount of import (Thousand Dollar)		
	Original Data	% change from the 2011	% change from the prev. year	Original Data	% change from 2011	% change from the prev. year
2008	46,376,610	-17.5	1.3	38,364,783	-13.9	3.1
2009	37,649,854	-33.0	-18.8	29,039,451	-34.8	-24.3
2010	49,816,058	-11.4	32.3	40,402,691	-9.3	39.1
2011	56,207,703	0.0	12.8	44,569,029	0.0	10.3
2012	58,524,559	4.1	4.1	43,340,962	-2.8	-2.8
2013	62,052,488	10.4	6.0	41,511,916	-6.9	-4.2
2014	70,284,872	25.0	13.3	45,283,254	1.6	9.1
2015	69,832,103	24.2	-0.6	44,024,430	-1.2	-2.8
2016	66,462,312	18.2	-4.8	43,215,929	-3.0	-1.8
2017	68,609,728	22.1	3.2	50,749,363	13.9	17.4
2018	72,719,932	29.4	6.0	58,868,313	32.1	16.0
2019	73,343,898	30.5	0.9	61,878,564	38.8	5.1

Source: *Korea International Trade Association, Foreign Trade Statistics by SITC), 2020.06.08*

Figure 4-2. Export and Imports Analysis Percent of Change

Source: *Korea International Trade Association, Foreign Trade Statistics by SITC), 2020.06.08*

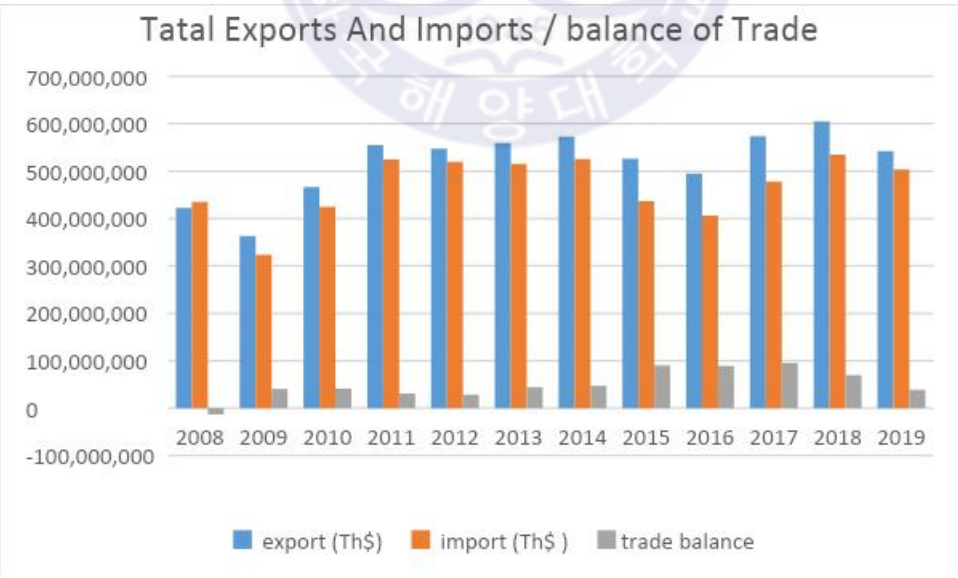
Table 4-8. Trade balance

Period	Trade balance		
	export (Th$)	import (Th$)	trade balance
2008	422,007,328	435,274,737	-13,267,409
2009	363,533,561	323,084,521	40,449,040
2010	466,383,762	425,212,160	41,171,602
2011	555,213,656	524,413,090	30,800,566
2012	547,869,792	519,584,473	28,285,319
2013	559,632,434	515,585,515	44,046,919
2014	572,664,607	525,514,506	47,150,101
2015	526,756,503	436,498,973	90,257,530
2016	495,425,940	406,192,887	89,233,053
2017	573,694,421	478,478,296	95,216,125
2018	604,859,657	535,202,428	69,657,229

Source: *Korea International Trade Association, Foreign Trade Statistics by SITC), 2020.06.08*

Merchandise Total Trade and Share Export and imports between Korea and USA

Figure 4-3. Total Exports and Imports 1



Source: *Korea International Trade Association, Foreign Trade Statistics by SITC), 2020.06.08*

Figure 4-3. Total Exports and Imports 2

Source: *Korea International Trade Association, Foreign Trade Statistics by SITC), 2020.06.08*

The free trade agreement changed the trade balance in favor of South Korea, so that exports to the United States became more than imports, and this is what the figures show in the above table, and therefore it is reflected on the level of Korean individual income. We notice that industrial supplies and materials led imports from USA, which accounted for 32.1% of Korean imports from USA. Automotive vehicles, parts, and engines led exports, which accounted for 27.7% of Korean exports to USA. On the other hand, we will discuss some of the exported and imported goods of South Korea according to tariff rates on these goods and services, examining its impact on the purchasing power of the Korean citizen and its impact on his income and well-being.

Table 4-9. Exports & Imports A

year	Food and live animals		Beverages and tobacco		Crude materials, inedible, except fuels		Mineral fuels, lubricants and related materials	
	export ($)	import ($)	export ($)	import($)	export ($)	import($)	export ($)	import ($)
2008	2,892,177	16,357,737	792,377	859,235	5,104,851	28,272,073	38,454,691	142,514,781
2009	3,074,486	13,390,009	831,292	762,807	3,989,071	20,310,146	23,785,961	91,669,187
2010	3,704,931	16,270,737	1,011,626	859,813	5,629,470	30,632,157	32,579,682	122,596,179
2011	4,600,228	21,804,394	1,216,103	860,585	8,222,187	42,262,713	53,086,917	173,673,743
2012	4,962,208	21,385,101	1,332,177	927,693	7,443,794	38,273,528	57,492,195	186,189,830
2013	4,870,797	21,894,282	1,253,772	1,005,969	6,706,896	34,524,195	54,112,641	180,431,281
2014	4,988,225	23,327,471	1,464,810	1,062,384	6,419,665	34,424,248	52,383,964	175,610,536
2015	4,712,516	22,762,992	1,635,712	1,048,677	5,483,847	26,357,783	33,123,684	103,400,935
2016	5,093,650	22,766,759	1,776,179	1,168,645	5,184,717	23,645,887	27,492,152	81,756,513
2017	5,367,978	24,556,624	1,971,503	1,327,194	6,497,413	28,638,202	36,401,033	109,952,903
2018	5,697,102	27,204,453	1,778,194	1,558,419	7,075,367	31,193,472	47,989,094	146,953,237
2019	5,999,326	27,382,848	1,780,332	1,348,470	6,347,417	29,993,349	42,178,883	127,340,920

Source: *extracted on 11 Apr 2020 01:25 UTC (GMT) from OECD.Stat*

Table 4-10. Exports & Imports B

year	Animal and vegetable oils, fats & waxes		Chemicals & related products.		Manufactured goods classified chiefly by material	
	export ($)	import($)	export ($)	import ($)	export ($)	import ($)
2008	45,456	1,095,108	42,709,901	36,658,229	59,559,915	64,983,497
2009	28,719	847,772	37,414,688	31,504,927	48,114,491	43,250,374
2010	52,477	1,006,883	48,951,471	41,147,678	60,430,128	56,142,626
2011	82,697	1,406,783	60,709,202	48,251,008	76,748,751	64,231,145
2012	90,178	1,326,705	61,293,537	47,364,248	75,796,780	56,827,774
2013	67,041	1,052,066	66,167,250	46,911,481	71,686,565	55,141,344
2014	59,030	1,156,172	67,671,407	47,497,486	75,627,529	58,031,720
2015	80,493	960,543	58,914,439	43,511,424	67,217,749	50,351,801
2016	72,386	975,638	59,457,731	42,907,112	64,807,389	47,431,083
2017	78,587	1,169,747	70,511,645	48,753,935	71,749,083	50,782,661
2018	61,375	1,174,013	80,688,116	55,153,497	73,907,430	51,957,120
2019	67,353	1,190,985	74,006,776	52,064,592	68,639,552	50,493,844

Source: *extracted on 11 Apr 2020 01:25 UTC (GMT) from OECD.Stat*

Table 4-11. Exports & Imports C

Period	Machinery & transport equipment		Miscellaneous manufactured articles		Commodities & trans. not classified elsewhere in the sktc	
	export (Th$)	import (Th$)	export (Th$)	import (Th$)	export (Th$)	import (Th$)
2008	233,688,072	114,541,782	37,116,378	28,074,486	1,643,509	1,917,809
2009	206,334,126	96,881,564	36,785,969	22,875,260	3,174,760	1,592,474
2010	263,902,570	123,316,740	46,715,234	31,168,200	3,406,173	2,071,147
2011	300,067,391	133,256,886	46,847,452	36,410,876	3,632,728	2,254,956
2012	287,818,731	127,811,082	48,462,327	37,958,643	3,177,864	1,519,870
2013	305,612,911	134,645,351	47,715,654	38,560,126	1,438,907	1,419,422
2014	315,071,188	141,645,524	47,802,615	41,391,464	1,176,174	1,367,499
2015	310,564,573	145,371,729	44,007,042	41,410,722	1,016,447	1,322,366
2016	290,662,979	142,389,301	39,622,236	42,161,460	1,256,522	990,489
2017	338,485,873	162,673,217	41,908,597	48,354,391	722,710	2,269,421
2018	345,362,391	166,174,464	41,597,645	52,726,646	702,943	1,107,108
2019	305,237,841	162,641,647	36,933,185	49,819,512	1,041,946	1,066,780

Source: *extracted on 11 Apr 2020 01:25 UTC (GMT) from OECD.Stat*

Table 4-12. Exports and Imports by Type 2019 [Billions of dollars]

Rank	Imports		Rank	Exports	
1	Industrial supplies and materials	$26.0	1	Automotive vehicles, parts, and engines	$25.2
2	Capital goods except automotive	$16.7	2	Capital goods except automotive	$23.8
3	Travel services	$9.5	3	Industrial supplies and materials	$15.7
4	Foods, feeds, and beverages	$7.3	4	Consumer goods except food and automotive	$10.9
5	Charges for the use of intellectual property	$4.1	5	Transport services	$6.5
	Other goods and services	$17.4		Other goods and services	$9.0

Source: *extracted on 11 Apr 2020 01:25 UTC (GMT) from OECD.Stat*

Table No. (16): It shows an example of some goods and services that are higher in volume and shows its rank in 2019, exports to South Korea accounted for 3.2% of total U.S. exports, and imports from South Korea accounted for 2.9% of total U.S. imports. Automotive vehicles, parts, and engines led industrial supplies and materials led exports that accounted for 32.1% of U.S. Exports to South Korea and imports, which accounted for 27.7% of U.S. imports from South Korea.

Table 4-13. Tariff Rate, Applied, Simple Mean, percentage

Series Name	Tariff rate, applied, simple mean, all products (%)	Tariff rate, applied, simple mean, manufactured products (%)	Tariff rate, applied, simple mean, primary products (%)	Share of tariff lines with specific rates, all products (%)	Taxes on income, profits and capital gains (% of total taxes)	Taxes on international trade (% of revenue)
2010	10.12	7.31	25.61	0	42.04972312	4.013205342
2011	10.36	7.41	26.58	0.3952669	45.30614476	3.823939792
2012	10.18	7.22	26.05	0.3432589	46.52725506	2.495062719
2013	10.33	7.17	27.25	0.3217567	46.11518739	2.762119073
2014	5.98	3.05	21.68	0	47.90469883	2.187618447
2015	6.05	2.67	24	0	49.939217	2.047897186
2016	11.12	7.29	31.29	0.26995	50.67776525	1.798942021
2017	5.36	2.42	21.21	0.0036382	51.63672348	1.777297439
2018	5.23	2.38	20.61	0.0036382	54.36586963	1.584310243

Source: *extracted on 11 Apr 2020 01:25 UTC (GMT) from OECD.Stat*

We find in the data of table 4-13 real indications of low customs tariff values for goods and services that have been studied in the table (classification of goods). This indicates that something indicates that the agreement played a role in

increasing trade exchange between the two countries and thus increasing Korea's national income, which needs to be reflected on economic well-being.

4.3.3 Expenditures:

The expenditure method is the most widely used approach for estimating GDP, which is a measure of the economy's output produced within a country's borders irrespective of who owns the means to production. The GDP under this method is calculated by summing up all of the expenditures made on final goods and services. Four main aggregate expenditures go into calculating GDP:

Consumption by households, investment by businesses, government spending on goods and services, and net exports, which are equal to exports minus imports of goods and services.[100]

The Formula for Expenditure GDP is:

GDP = C + I + G + (X – M(

Where

C = Consumer spending on goods and services

I = Investor spending on business capital goods

G = Government spending on public goods and services

X = exports

M = imports

$GDP = C+I+G+ (X-M)$

[100] - https://www.investopedia.com/terms/e/expenditure-method.asp

Table 4-14. Expenditure for Social Purposes

%GDP	Old Age, % GDP	health	family	unemployment	Survivors	incapacity	active labor market program	housing	other social policy area
2008	1.8	3.2	0.6	0.3	0.3	0.6	0.2	–	0.7
2009	1.9	3.6	0.7	0.4	0.3	0.6	0.4	–	0.6
2010	1.9	3.7	0.7	0.3	0.3	0.5	0.3	–	0.6
2011	1.9	3.7	0.7	0.3	0.3	0.5	0.2	–	0.5
2012	2.1	3.7	0.9	0.3	0.3	0.6	0.3	–	0.5
2013	2.2	3.8	1.2	0.3	0.3	0.6	0.4	–	0.6
2014	2.5	3.9	1.2	0.3	0.3	0.6	0.4	–	0.6
2015	2.7	4	1.2	0.3	0.3	0.6	0.4	0	0.7
2016	2.7	4.2	1.2	0.3	0.3	0.6	0.4	0.1	0.7
2017	2.8	4.3	1	0.3	0.3	0.6	0.4	0.1	0.7

Source: *https://www1.compareyourcountry.org/socialexpenditure/en/2/551/data table//KOR*

Table 4-15. Social Spending

year	Spending on cash benefits, % GDP	Spending on social services	Public social spending, % of GDP	Total net social spending, % of GDP
2008	2.9	4.4	7.6	7.81
2009	3.2	4.8	8.4	8.44
2010	3.1	4.8	8.2	9.26
2011	3.1	4.8	8.1	10.7
2012	3.3	5	8.7	10.90
2013	3.6	5.3	9.3	11.9
2014	3.9	5.4	9.7	12.20
2015	4.2	5.7	10.2	13.
2016	4.2	6	10.5	13.4
2017	4.2	6	10.6	13.8

Source: *OECD (2019), Society at a Glance 2019: OECD Social Indicators, OECD Publishing, Paris, https://doi.org/10.1787/soc_glance-2019-en.*

Table 4-15 shows the rates of government spending on social sectors. By

comparing the figures, we find that the Korean government spending after the agreement increased on these sectors due to the increase in the gross national product so that the FTA was a factor in raising the rates of these allocations and general government spending on them. The percentage of spending on these sectors in 2008 was 7.81 and in 2017, it increased to 13.8.

Social benefits in cash refer to old age and survivor's pensions, incapacity benefits, family cash benefits, unemployment and other social policy areas categories. In 2008 (2.9) up to (4.2), social services refer to care and accommodation for the elderly and disabled, incapacity services, health, childcare, housing assistance and other social services were in 2008 (4.4) which raised up to (6) in 2012.

Table 4-16. Social expenditure upon multiple social sectors 1

Branch	Old age			Survivors			Incapacity related		
				Type of Programme					
year	Per head, at constant prices (2010) and constant PPPs (2010), in US dollars	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure
2008	503.8	1.8	5.5	77.9	0.3	0.9	172.9	0.6	1.9
2009	531.4	1.9	5.3	81.7	0.3	0.8	176.8	0.6	1.8
2010	568.6	1.9	6	86.2	0.3	0.9	159.3	0.5	1.7
2011	595.2	1.9	5.9	92	0.3	0.9	169.9	0.5	1.7
2012	674.1	2.1	6.5	97.5	0.3	0.9	182.8	0.6	1.8
2013	717.4	2.2	6.9	90.9	0.3	0.9	184.5	0.6	1.8
2014	825.5	2.5	7.7	98	0.3	0.9	187.2	0.6	1.7
2015	926.1	2.7	8.4	105.5	0.3	1	201.3	0.6	1.8
2016	960.4	2.7	8.5	109.9	0.3	1	208.2	0.6	1.8
2017	1 012.9	2.8	..	113.7	0.3	..	216.4	0.6	..

Table 4-17. Social expenditure upon multiple social sectors 2

	Health			Family			Unemployment		
	Type of Programme								
year	Per head, at constant prices (2010) and constant PPPs (2010), in US dollars	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs (2010), in US dollars	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs (2010), in US dollars	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure
2008	924.1	3.2	10.1	161.7	0.6	1.8	74.2	0.3	0.8
2009	1 026.7	3.6	10.3	194.7	0.7	1.9	102.5	0.4	1
2010	1 115.0	3.7	11.8	212.5	0.7	2.3	88.5	0.3	0.9
2011	1 146.1	3.7	11.3	219.3	0.7	2.2	83.5	0.3	0.8
2012	1 175.8	3.7	11.3	277.1	0.9	2.7	84.9	0.3	0.8
2013	1 235.8	3.8	11.9	391	1.2	3.8	88.5	0.3	0.9
2014	1 305.8	3.9	12.2	395.2	1.2	3.7	93.6	0.3	0.9
2015	1 382.9	4	12.5	408.8	1.2	3.7	99.4	0.3	0.9
2016	1 482.0	4.2	13.1	424.9	1.2	3.8	104.5	0.3	0.9
2017	1 545.4	4.3	..	425.1	1.2	..	109	0.3	..

Source: *Social Expenditure - Aggregated data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

General government (different levels of government and social security funds, as social insurance and social assistance payments controls social spending with financial flows. Total net social spending takes public and private social expenditure, and includes the effect of direct taxes (income tax and social security contributions), indirect taxation of consumption on cash benefits as well as tax breaks for social purposes.

Table 4-18. Social expenditure upon multiple social sectors 3

Branch	Housing			Other social policy areas			Total		
year	Type of Programme								
	Per head, at constant prices (2010) and constant PPPs (2010), in US $	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs (2010), in US $	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure	Per head, at constant prices (2010) and constant PPPs (2010), in US $	In percentage of Gross Domestic Product	In percentage of Total General Government Expenditure
2008				189.9	0.7	2.1	2 172.0	7.6	23.7
2009				183.7	0.6	1.8	2 421.0	8.4	24.2
2010				174.1	0.6	1.8	2 495.8	8.2	26.5
2011				161.5	0.5	1.6	2 545.1	8.1	25.2
2012				173.5	0.5	1.7	2 769.5	8.7	26.6
2013				190.7	0.6	1.8	3 018.5	9.3	29.2
2014				207.4	0.6	1.9	3 233.5	9.7	30.2
2015	9	0	0.1	239.2	0.7	2.2	3 493.3	10.2	31.6
2016	24	0.1	0.2	244.2	0.7	2.2	3 687.0	10.5	32.6
2017	23.3	0.1	..	247.7	0.7	2.3	3 824.1	10.6	32.7
2018	..	..	..	..	..	2.5	..	11.1	33.0

Source: *Social Expenditure - Aggregated data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

4.3.4 Savings and Investment:

The Republic of Korea's savings ranking is number eight on the 2017 list, with a national saving rate of 36%. In 2007, Korea ranked 32nd, and the national saving rate was 33%. Korea, a high-income East Asian economy, has shown remarkable progress over the years and annual export growth has increased by 20%. The country's gross national income per capita was $ 67 in the early 1950s and reached $ 28,380 in 2017.

Table 4-19. Gross National Disposable Income, Personal GDI, per capita PGDI, Gross Savings and household's Net savings

Period	Gross national disposable income (current prices) (Bil.Won)	Personal gross disposable income (current prices)	Per capita GNI (current prices, won) (10Thou.Won)	Per capita PGDI (current prices, won) (10Thou.Won)	Gross saving ratio (%)	Gross domestic investment ratio (%)	(Households net saving ratio) (%)
2008	1,154,672.20	658,676.7	2,353.50	1,342.7	33.4	33.7	2.3
2009	1,202,422.00	681,634.6	2,440.70	1,382.4	33.5	29.5	3.1
2010	1,319,387.50	722,576.0	2,673.00	1,458.2	35.2	32.6	2.8
2011	1,393,483.20	762,753.3	2,798.60	1,527.4	34.6	33.2	2.2
2012	1,450,611.40	793,887.9	2,898.80	1,581.5	34.5	31.1	2.8
2013	1,507,724.90	831,189.6	2,995.10	1,648.2	34.8	29.7	4.5
2014	1,567,113.40	865,319.8	3,094.80	1,705.2	35.0	29.7	5.9
2015	1,658,961.90	925,744.6	3,260.20	1,814.7	36.4	29.5	8.4
2016	1,742,004.30	948,800.5	3,411.20	1,852.5	36.8	30.1	7.5
2017	1,836,741.90	982,709.9	3,588.60	1,913.3	37.1	32.3	6.5
2018	1,898,625.20	1,025,640.0	3,693.00	1,987.4	35.9	31.5	6.1

Source: *Social Expenditure - Aggregated data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

Currently, the Republic of Korea ranks fifteenth in the world. The keys to Korea's financial success depend on the import of raw materials and export-oriented

industries, especially those related to electronics, telecommunications, automobiles, chemicals, shipbuilding and steel. The following table shows the extent of savings after the FTA.

Table 4-19 shows that the total saving rate in 2008 (33.4) and rose in 2018 to (35.9). Likewise, the table shows the effects of the terms of the free trade agreement between the two countries for investment to the high rate of investment, as shown in the following table no. (24) As a result of saving, this is reflected on the net saving for families, as it was in 2008 (2.3) and became in 2018 (6.1), which indicates that the economic welfare in this country increased after the FTA.

Table 20. Gross Savings and Investment: Private and Government

Period	Gross saving	Private	General government	Gross investment	Gross domestic capital	Private	General government	Gross national disposable
2008	386,165.5	285,549.7	100,615.7	386,359.3	388,588.1	328,071.9	60,516.1	1,154,672.2
2009	402,901.8	312,409.1	90,492.7	402,518.1	354,372.1	275,876.3	78,495.8	1,202,422.0
2010	464,451.4	366,532.7	97,918.7	464,451.4	430,537.9	361,384.4	69,153.4	1,319,387.5
2011	482,737.2	372,624.5	110,112.7	482,737.2	462,785.9	393,866.3	68,919.5	1,393,483.2
2012	500,806.5	392,981.2	107,825.3	500,806.5	450,994.6	382,078.1	68,916.6	1,450,611.4
2013	524,949.0	418,714.2	106,234.8	524,949.0	448,524.7	376,871.0	71,653.8	1,507,724.9
2014	548,691.4	444,539.0	104,152.4	548,691.4	465,604.0	396,962.5	68,641.5	1,567,113.4
2015	604,061.6	493,383.9	110,677.7	604,061.6	489,601.5	417,153.9	72,447.6	1,658,961.9
2016	641,904.3	513,928.7	127,975.6	641,904.3	524,717.6	447,632.5	77,085.1	1,742,004.3
2017	680,904.7	536,841.3	144,063.5	680,904.7	592,711.4	510,773.3	81,938.1	1,836,741.9
2018	682,356.5	527,385.6	154,970.9	682,356.5	597,687.4	513,350.6	84,336.8	1,898,625.2

Source: *Social Expenditure - Aggregated data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

Table 4-21. Foreign Direct Investment. Inflows, Outflows

Series Name	Foreign direct investment, net (BoP, current US$)	Foreign direct investment, net inflows (% of GDP)	Foreign direct investment, net outflows (% of GDP)	Foreign direct investment, net outflows (BoP, current US$)
2010	18724200000	0.867739218	2.57849402	28221600000
2011	19874700000	0.812748039	2.465579662	29647700000
2012	21102800000	0.776565541	2.502332165	30598700000
2013	15551200000	0.977830215	2.168940867	28317800000
2014	18724900000	0.657080499	1.983832421	27998500000
2015	19583000000	0.296804076	1.713025472	23687100000
2016	17785200000	0.855545973	2.112624551	29889500000
2017	16156500000	1.170203443	2.225665814	34069400000
2018	26037800000	0.752279962	2.360123541	38220400000

Source: *Social Expenditure – Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

As a result of the suspension of work in the 2017 agreement due to US President Trump's request for this agreement, the percentage of US investment cases in Korea decreased from (2.1) in 2017 to (-11.2) in 2018. Due to negotiations to amend the terms of the trade agreement between the two countries that have not yet been approved. This influence on American investors to freeze their approach to investing in South Korea, because the economic situation between the two countries was not clear and ambiguous, later when the amendment was approved, the investment cases increased from (11.2) in 2018 to (2.7) in 2019, which indicates that the agreement was a positive factor for American investment in South Korea. This has led to an increase in Korean gross domestic product, leading to an increase in the level of economic welfare of the country. On the other hand, the values of the American investment in Korea indicate an increasing increase, as in 2008 (1923010) billion Korean won, and in 2019 (8575074) Korean won. The table shows the total number of investments in Korea for the base year 2011, where we note that the percentage of US investment in Korea was negative, but after 2012 it rose to a percentage (128.8%).

Table 4-22. Foreign Direct Investment in Korea

Period	Investment Cases		The Continent of America(Invest. Cases)		Investment Value (Thou.U$)		The Continent of America (Invest.Value) (Thou.U$)	
	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011
2008	3,745	38.2	630	38.5	11,711,873	-14.3	1,923,010	-48.7
2009	3,131	15.5	554	21.8	11,484,139	-16.0	2,166,872	-42.2
2010	3,110	14.8	540	18.7	13,072,835	-4.4	2,680,911	-28.5
2011	2,710	0.0	455	0.0	13,673,089	0.0	3,748,609	0.0
2012	2,865	5.7	432	-5.1	16,285,905	19.1	4,410,671	17.7
2013	2,607	-3.8	426	-6.4	14,545,344	6.4	4,551,859	21.4
2014	2,462	-9.2	456	0.2	19,000,084	39.0	5,013,962	33.8
2015	2,695	-0.6	553	21.5	20,908,569	52.9	8,445,913	125.3
2016	2,987	10.2	577	26.8	21,295,003	55.7	5,256,580	40.2
2017	2,774	2.4	589	29.5	22,948,140	67.8	6,303,412	68.2
2018	2,669	-1.5	523	14.9	26,900,709	96.7	7,834,483	109.0
2019	2,674	-1.3	537	18.0	23,328,299	70.6	8,575,074	128.8

Source: *Social Expenditure - Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD. Stat*

Table 4-23. Total Investment in Korea base year 2011

Period	Investment Cases (Matter)		The Continent of America(Investment Cases) (Matter)		Investment Value (Thou.U$)		The Continent of America(Investment Value) (Thou.U$)	
	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011
2008	3,745	38.2	630	38.5	11,711,873	-14.3	1,923,010	-48.7
2009	3,131	15.5	554	21.8	11,484,139	-16.0	2,166,872	-42.2
2010	3,110	14.8	540	18.7	13,072,835	-4.4	2,680,911	-28.5
2011	2,710	0.0	455	0.0	13,673,089	0.0	3,748,609	0.0
2012	2,865	5.7	432	-5.1	16,285,905	19.1	4,410,671	17.7
2013	2,607	-3.8	426	-6.4	14,545,344	6.4	4,551,859	21.4
2014	2,462	-9.2	456	0.2	19,000,084	39.0	5,013,962	33.8
2015	2,695	-0.6	553	21.5	20,908,569	52.9	8,445,913	125.3
2016	2,987	10.2	577	26.8	21,295,003	55.7	5,256,580	40.2
2017	2,774	2.4	589	29.5	22,948,140	67.8	6,303,412	68.2
2018	2,669	-1.5	523	14.9	26,900,709	96.7	7,834,483	109.0
2019	2,674	-1.3	537	18.0	23,328,299	70.6	8,575,074	128.8

Source: *Social Expenditure - Aggregated dataData extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

Table 4-24 shows Korean investments outside Korea, particularly the United States of America, where it shows high rates before and after the agreement, and this can be analyzed as follows:

Table 4-24. Foreign Direct Investment Abroad Korea

Period	Accepted Amount (Thou.U$)		North America (Thou.U$)	
	Original Data	Percent change from the 2011	Original Data	Percent change from the 2011
2008	37,238,770	-20.0	6,442,377	-65.2
2009	31,627,166	-32.0	8,289,963	-55.2
2010	34,826,956	-25.1	6,029,418	-67.4
2011	46,520,342	0.0	18,497,173	0.0
2012	40,660,202	-12.6	7,894,813	-57.3
2013	36,336,917	-21.9	6,822,304	-63.1
2014	35,915,117	-22.8	11,058,178	-40.2
2015	40,443,153	-13.1	11,205,271	-39.4
2016	49,673,131	6.8	19,224,331	3.9
2017	49,412,304	6.2	14,310,620	-22.6
2018	59,263,003	27.4	14,444,840	-21.9
2019	84,459,861	81.6	23,082,383	24.8

Source: *Social Expenditure - Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD.Stat*

In table 4-24, we find that the value of Korean investment in the United States of America has increased, as it was before the agreement in 2008 (-65.2) and became after the agreement in 2019 (24.8). This was due to a rise as result of the amendment of the terms of the agreement between those because the provisions related to investment in the United States allowed Korea to increase its investments in America.

4.3.5 Gini Coefficient:

In this part of the analysis, I will review the importance of a variable that is affected by the KORUS FTA between the two partners, and consequently reflect on Economic welfare, which is the GINI Coefficient.

Table 4-25. Gini coefficient in South Korea from 2011 to 2018

year	GINI Coefficient
2010	0.32
2011	0.318
2012	0.316
2013	0.37
2014	0.36
2015	0.352
2016	0.355
2017	0.355
2018	0.35

The Gini coefficient is a number between zero and one that measures the relative degree of inequality in the distribution of income of a country. With a Gini coefficient of 0.35 on after-tax income in 2018, South Korea's relative inequality is on the lower end of the scale. A coefficient of zero would describe a population in which every person receives the same adjusted household income. In contrast, a coefficient of one describes the case of maximum income inequality, where one person receives all the income while the other receives nothing.

4.3.6 Consumptions

The tables below show the rates of government consumption expenditure on the various sectors in the country. So public consumption spending and expenditures in many aspects like health, security, education, and social protection like the free trade agreement contributed to increasing the gross national income, which was reflected in government and private consumption spending, enhancing the well-being of the Korean citizen.

Table 4-26.Consumptions

Series Name	Final consumption expenditure (% of GDP)	Final consumption expenditure (annual % growth)	Final consumption expenditure (constant 2010 Bill.US$)	Final consumption expenditure (current Bill. US$)	General government final consumption expenditure (% of GDP)	General government final consumption expenditure (an%	General government final consumption expenditure (constant 2010 US$)	General government final consumption expenditure (current US$)
2010	64.79	4.26	709,150,468.70	709,150,468.70	14.47145675	3.85	158389998.5	158389998.5
2011	65.55	2.75	728,628,766.13	788,170,014.02	14.58572607	2.21	161893014.3	175388058.8
2012	66.20	2.25	744,994,252.03	809,553,341.29	14.83343905	3.37	167355788.3	181384373.2
2013	65.92	2.19	761,318,044.64	860,633,606.58	15.00353214	3.26	172813891.3	195886863
2014	65.47	2.04	776,870,251.66	923,989,667.99	15.12195211	3.05	178078146.4	213421240.4
2015	64.32	2.39	795,400,069.72	889,359,439.34	15.00945034	2.99	183400010.9	207545279.9
2016	63.83	2.98	819,112,140.28	903,021,060.92	15.176576	4.48	191611169.3	214718828.3
2017	63.43	2.80	842,069,579.37	970,946,403.68	15.33444464	3.42	198173539.3	234732152.9
2018	64.74	3.51	871,589,215.45	1,048,353,402.71	16.08794273	5.60	209261795	260531957.7

Source: *Social Expenditure - Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD. Stat*

Table 4-27. General Government and Final Consumption Expenditure

Period	General government - Final consumption expenditure (9) = (6)-(7) + (8) (original Data. Unit: Bil.Won)							
	General public services	Public order and safety	Environmental protection	Housing and community	Health	Education	Social protection	Total
2008	21,383.5	11,291.7	4,885.8	4,757.6	32,807.2	38,640.5	7,371.7	162,150.9
2009	23,769.5	12,013.0	5,502.5	5,339.8	37,616.7	39,488.3	8,526.4	176,711.6
2010	25,091.0	12,320.4	5,600.9	5,684.9	42,617.6	40,501.1	9,805.8	187,874.7
2011	25,639.3	13,096.1	5,968.1	6,205.9	45,181.1	43,617.3	11,034.5	199,627.2
2012	26,803.9	14,038.4	6,013.6	6,497.8	47,149.7	46,908.6	12,801.2	211,492.8
2013	28,595.6	14,731.5	6,000.6	6,673.5	49,975.2	49,283.0	14,524.5	224,770.8
2014	28,978.2	15,733.5	6,342.6	7,429.0	54,162.6	52,897.9	15,776.6	237,959.4
2015	29,745.4	16,855.4	5,920.5	7,780.1	58,182.6	54,909.0	16,573.8	250,088.0
2016	31,959.3	18,027.7	5,857.0	7,982.7	63,809.8	56,833.7	17,796.7	265,295.2
2017	35,637.6	18,645.8	6,014.0	8,701.0	69,832.4	59,308.9	17,922.1	283,045.8
2018	38,313.1	19,383.1	6,160.9	9,019.1	79,214.8	61,860.8	19,580.8	304,692.7

Source: *Social Expenditure - Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD. Stat*

Table 4-28. General Government and Final Consumption Expenditure (percent change) from the 2010

Period	General government - Final consumption expenditure (9)=(6)-(7)+(8), (Percent change from the 2010)							
	General public services	Public order and safety	Environmental protection	Housing and community amenities	Health	Education	Social protection	Total
2008	-14.8	-8.3	-12.8	-16.3	-23.0	-4.6	-24.8	-13.7
2009	-5.3	-2.5	-1.8	-6.1	-11.7	-2.5	-13.0	-5.9
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	2.2	6.3	6.6	9.2	6.0	7.7	12.5	6.3
2012	6.8	13.9	7.4	14.3	10.6	15.8	30.5	12.6
2013	14.0	19.6	7.1	17.4	17.3	21.7	48.1	19.6
2014	15.5	27.7	13.2	30.7	27.1	30.6	60.9	26.7
2015	18.6	36.8	5.7	36.9	36.5	35.6	69.0	33.1
2016	27.4	46.3	4.6	40.4	49.7	40.3	81.5	41.2
2017	42.0	51.3	7.4	53.1	63.9	46.4	82.8	50.7
2018	52.7	57.3	10.0	58.7	85.9	52.7	99.7	62.2

Source: *Social Expenditure - Aggregated Data extracted on 11 Apr 2020 00:54 UTC (GMT) from OECD. Stat*

4.4 Research Findings:

Through SPSS analysis of the components included in the free trade agreement between the two countries, the following results have been shown with us:

4.4.1 Gross national product and tariff

1- There is a strong correlation between tariffs and gross domestic product, as it was found that there was a decrease in the tariffs on most commodities exported to the United States from Korea, which led to an increase in GDP, which in turn was

reflected in the economic welfare in South Korea. This was measured in the following equation:

Y = 1.825E + 12 + -6.09E + 10x

3- It turns out that the regression coefficient according to the table below is = -75%. As for the Durban Watson coefficient = 1.394, this indicates that there is a medium correlation between low tariffs for goods and goods and high GDP.

4-

Table 4-29. Model Summary

Model Summary[b]								
Model	R	R Square	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
1	.755[a]	.570	.570	11.921	1	9	.007	1.394
a. Predictors: (Constant), TARIFF								
b. Dependent Variable: GROSSDP								

Table 4-30. Result of estimation: GNP and Tariff

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1825212621384.880	159049504006.207		11.476	.000
	TARIFF	-60941064813.390	17650537161.509	-.755	-3.453	.007

4.4.2 Tariff and Trade Balance:

1-There is an average negative correlation between the tariff and the trade balance. It was found that the lower the tariff, the greater the trade balance, which in turn was reflected in the economic welfare in South Korea. This was measured in the following equation:

Y = 26627754.608 + 11 84111.480 x

2- It turns out that the regression coefficient according to the table below = 43.5%.

The Durban Watson coefficient = 0.6360, and this indicates that there is a positive autocorrelation relationship between low tariffs for goods and goods and the trade balance.

Table 4-31. Model Summary: Trade Balance and Tariff

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.435[a]	.189	.099	6327933.68878	.189	2.103	1	9	.181	.636
a. Predictors: (Constant), TARIFF										
b. Dependent Variable: Trade Balance										

Table 4-32. Result of estimation: Trade Balance and Tariff

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	26627754.608	7356929.352		3.619	.006	9985224.177	43270285.038
	TARIFF	-11 84111.480-	816436.088	-.435-	-1.450-	.181	-3031018.226-	662795.265
a. Dependent Variable: Trade Balance								

To examine the effect of low tariffs on imports and exports, I examined the linear regression equation between tariffs and imports and exports as shown in the following tables. The value of the regression coefficient between tariffs and imports was 40.9%, which is a relatively strong relationship and the value of the Durban Watson test is equal to 1.16. As for the effect of low tariffs on exports, the value of the regression coefficient was 53.9%, and the value of the Durban Watson test was 0.764, which was a strong indication of the relationship between exports and tariffs.

Table 4-33. Model Summary: Export and Tariff

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.409[a]	.167	.048	4.902	.167	1.407	1	7	.274	1.162
a. Predictors: (Constant), TARIFF										
b. Dependent Variable: IMPORTS										

Table 34. Result of estimation: Export and Tariff

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.539[a]	.290	.189	10.280	.290	2.862	1	7	.135	.764
a. Predictors: (Constant), TARIFF										
b. Dependent Variable: EXPORTS										

4.4.3 Investment:

1. It turned out that the Korean and American investment increased its percentage after amending the agreement between the two countries.

2. There is a strong correlation between investment and gross domestic product, and the regression coefficient reached (903). It was found that there is a direct relationship between investment and Gross Domestic Product to a large degree. The strength of the relationship is about 90.3%, and the coefficient of the relationship between investment and GDP has reached (1.397) Durbin-Watson as shown in the table, which led to a rise in the gross domestic product, which in turn was reflected in the economic welfare of South Korea. The following equation illustrates the relationship between tariffs and GDP.

Y = 303691631345.347 + 1841777.300 X

Table 4-35. Model Summary: Export and Tariff

Model Summary[b]								
			Change Statistics					
Model	R	R Square	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.950[a]	.903	.903	27.908	2	6	.001	1.397
a. Predictors: (Constant), INVESTMENT, Gross investment								
b. Dependent Variable: GDP								

Table 4-36. Result of estimation: Export and Tariff

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
	303691631345.35	88700588975.0		3.424	.008	103036958651.2	504346304039.5
Gross investment	1841777.3	162100.201	.967	11.362	.000	1475081.170	2208473.4
a. Dependent Variable: GDP							

4.4.4 Expenditure: Government spending:

1-There is a strong direct correlation between GDP and government spending. It turns out that the higher the GDP, the more government spending, which in turn is reflected in economic prosperity in South Korea. This was measured in the following equation:

Y = -209738902300.957 + 52458252380.217 x

2-It turns out that the regression coefficient according to the table below is 94.6%. The Durban Watson coefficient = 1.751, which indicates that there is a positive relationship between GDP and government spending.

Table 4-37. Model Summary: GDP and Social Expenditure

Model Summary[b]								
			Change Statistics					
Model	R	R Square	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.946[a]	.895	.895	76.802	1	9	.000	1.751
a. Predictors: (Constant), Social Expenditure								
b. Dependent Variable: GDP								

Table 4-38. Result of estimation: GDP and Social Expenditure

Coefficients[a]							
		Unstandardized Coefficients	Standardized Coefficients			95.0% Confidence Interval for B	
Model		B	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-209738902301.0		-1.213	.256	-600841441812.4	181363637210.5
	Social Spending's Perc. TOT. Gov. Expend	52458252380.2	.946	8.764	.000	38917301772.9	65999202987.6
a. Dependent Variable: GDP							

4.4.5 Consumptions: General consumption and consumer spending:

1. There is an intermediate direct correlation between GDP and public consumption spending. It was found that the higher the GDP, the greater the general consumer spending, which in turn was reflected on the economic welfare in South Korea. This was measured in the following equation:

Y = 1657465569579.031 + 118993751930.831 x

2. It was found that the regression coefficient according to the table below = 51.0%. The Durban Watson coefficient = 0.257, and this indicates that there is a

positive relationship between the gross national product and general consumer spending.

Table 4-39. Model Summary: GDP and Consumption

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.510[a]	.260	.178	179374537812.43	.260	3.169	1	9	.109	.257
a. Predictors: (Constant), Final Consumption										
b. Dependent Variable:GDP										

Table 4-40. Result of estimation: GDP and Consumption

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1657465569579.0	210753011291.0		7.864	.000	1180709135505.6	2134222003652.5
	final Consumption	-118993751930.8-	66845145418.5	-.510-	-1.780-	.109	-270207976437.5-	32220472575.8
a. Dependent Variable: GROSSDP								

4.4.6 Gini Coefficient:

There are many methods of estimating income distribution, which are used to estimate the fairness of income distribution to individuals in the country. It will be an indicator of the level of social welfare, and the analysis will use the rate of consumption and its relationship with Gini coefficient to know the distribution of income and thus will be an indicator of the level of well-being.

In order to know the equity of the distribution of income in the country, which will indicate the level of economic welfare, a linear regression model was calculated

between the Gini coefficient and the ratio of public social spending and showed the following:

1- There is a strong correlation between the Gini coefficient and public social spending. It was found that the more public spending the lower the value of the Gini coefficient, which is close to zero, which in turn was reflected in the economic welfare in South Korea. This was measured in the following equation:

Y = 20.313 + 2.577x

2. It turns out that the regression coefficient according to the table below is 73.7%. The Durban Watson coefficient = 1.543, and this indicates that there is a positive relationship between the gross national product and the general consumer spending

Table 4-41. Model Summary: Gini Coefficient and Social Spending Rate

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.737[a]	.544	.493	1.42642	.544	10.732	1	9	.010	1.543
a. Predictors: (Constant), Social Spending's Percent										
b. Dependent Variable: Gini										

Table 4-42. Result of estimation: Gini Coefficient and Social Spending Rate

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	20.313	4.184		4.855	.001	10.849	29.777
	Social Spending's Percent	2.577	.787	.737	3.276	.010	.797	4.356
a. Dependent Variable: Gini								

I also examined the relationship of savings rate for individuals in the country with Gini coefficient to find out the level of economic welfare. The linear regression model was calculated between the Gini coefficient and the savings rate and it showed the following:

1. There is an intermediate correlation between the Gini coefficient and savings, and the regression coefficient according to the table below is = 57.7%. Durban Watson = 1.374, and this indicates that there is a positive relationship between the Gini coefficient and savings.

Table 4-43. Model Summary: Gini Coefficient and Gross Saving Rate

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.577[a]	.333	.259	1.72448	.333	4.500	1	9	.063	1.374
a. Predictors: (Constant), Gross Saving Rate										
b. Dependent Variable: Gini										

Table 4-44. Result of estimation: Gini Coefficient and Gross Saving Rate

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.003	15.538		.065	.950	-34.145-	36.151
	GROSS SAVING RATE	.936	.441	.577	2.121	.063	-.062-	1.934
a. Dependent Variable: Gini								

Household final consumption spending is defined as the market value of all goods and services, including durable products (such as cars and household appliances) that households buy. The exception is the purchase of housing, but it includes the calculated rent of the owner-occupied housing. Household consumption expenditures include the expenditures of nonprofits that serve households. Data is converted into fixed international dollars for 2017 using PPP rates.

Table 4-45. Model Summary: Gini Coefficient and Household Expenditure

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.681[a]	.463	.404	1.54703	.463	7.775	1	9	.021	1.465
a. Predictors: (Constant), household expenditure.										
b. Dependent Variable: Gini										

Table 4-46. Result of estimation: Gini Coefficient and Household Expenditure

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	16.046	6.436		2.493	.034	1.486	30.606
	Householdexp	2.323E-011	.000	.681	2.788	.021	.000	.000
a. Dependent Variable: Gini								

I examined the rate of consumption relationship among individuals in Korea with Gini coefficient to see the level of economic welfare, the linear regression model calculation between consumption and the Gini coefficient per capital consumption shows the following:

1- There is an intermediate correlation between the Gini coefficient and consumption, and the regression coefficient according to the table below = 68.1%.

2- The Durban Watson coefficient = 1.465. This indicates that there is a positive relationship between the Gini coefficient and individual consumption.

Ch.5 Conclusion

5.1 Conclusions

This research addressed the U.S.-South Korea Free Trade Agreement and its implications for economic and social well-being during the 2012-2018 period. The study aims to assess the economic implications of the FTA with all these considerations in the U.S.-South Korea Free Trade Agreement. The study aims to provide two economic implications, the direct benefits of the U.S.-Korea Free Trade Agreement which summarized, including the benefits of tariff reduction or removal policies, as well as the benefits of reducing or eliminating non-tariff barriers.

Secondly, a methodology was provided to analyze the implications of increased gross income and GDP, and how this was reflected in Korean per capita income and increased government spending on the various service sectors of the country, with its impact on welfare. The researcher used the descriptive analytical method as a method used to study social and human phenomena since it is suitable for the phenomenon in question. Secondary sources were used to collect information, such as books, reports, specialized scientific journals, published papers and websites. Thus, illustrative tables were used to illustrate economic indicators. The SPSS system was used for statistical analysis and the Gini coefficient was adopted.

The study concluded the following results:

1. There is a positive relationship between the Free Trade Agreement between the United States and the high level of economic and social well-being of the South Korean citizen.

2. There is a strong correlation between tariffs and GDP, as there has been a reduction in tariffs on most commodities exported to the United States from Korea, resulting in an increase in GDP, which in turn has been reflected in South Korea's economic well-being.

3. There is an average negative correlation between tariffs and the trade balance, where it has been shown that the lower the tariff, the higher the trade balance, which in turn has been reflected in South Korea's economic well-being.

4. It turns out that Korean and U.S. investment increased after the agreement between the two countries was amended.

5. There is a strong correlation between investment and GDP, and the regression factor (903), where it was found that there is a direct correlation between investment and GDP largely. The strength of the relationship is about 90.3%, and the coefficient of the relationship between investment and GDP (1,397) has led to a rise in GDP, which in turn has been reflected in South Korea's economic well-being.

6. There is a strong direct correlation between GDP and government spending which has been shown that the higher GDP, the higher government spending, which in turn is reflected in South Korea's economic prosperity.

7. There is a moderate direct relationship between GDP and general consumer spending showing that the higher GDP, the greater the public consumption spending.

8. There is a strong correlation between the Gini coefficient and public social spending which has been shown that the lower public spending, i.e. near zero, which in turn has been reflected in South Korea's economic well-being.

9. There is an average correlation between Gini coefficient and savings, and regression coefficient = 57.7%. Durban Watson = 1.374, which indicates a positive relationship between the Gini coefficient and savings.

10. There is an average correlation between Gini coefficient and consumption, and regression coefficient = 68.1%. Durban Watson coefficient = 1.465 indicating a positive relationship between Gini coefficient and individual consumption.

5.2 Recommendations

1- Free trade agreements aim to remove trade barriers between partner countries, increase trade flows of goods and services among themselves and improve overall economic efficiency. An increasing number of free trade agreements and preferential trade programs have been taken in place between South Korea, countries and regions other than the United States.

2. In this study, we assessed some indicators of well-being, and other studies are needed to address many aspects that measure the level of well-being in Korean society.

3- Adopting the Korean model of economic renaissance in developing countries. In terms of increasing the level of government spending on economic and social life, ultimately reflecting improved living standards and thus improved welfare.

4- Directing support to the private sector, especially small enterprises, by providing the right environment for this sector, which contributes to the creation of jobs, all of which focus on improving the level of economic well-being.

5. Supporting the Korean agricultural sector and supporting farmers, leading to an increased contribution of the agricultural sector to GDP, especially since most goods imported from the United States are concentrated in agricultural and animal products.

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