Czech University of Life Sciences Prague
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Master's Thesis

Evaluation of the Economic Development in Turkey

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

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Economics and Management
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Thesis title

Evaluation of the Economic Development in a Selected Country/Region

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Objectives of thesis

The current development brings many challenges to the world economy. This also applies to Turkey as an important regional economic centre. The aim of this thesis is to evaluate the current economic development in Turkey and its position in the world economy.

Methodology

The thesis contains a theoretical and practical part. The theoretical part presents a literature review including theoretical concepts (Economic Growth/Economic Development). The practical part deals with development, current state and perspectives of economic development in a selected country (Turkey) based on the analysis of relevant data. The economic situation will also be assessed from the perspective of sustainability and in the context of social, political and cultural development. The thesis uses mainly general theoretical methods (comparison, analysis, synthesis). The analysis will be based on publicly available secondary data from Turkish and international institutions.

The proposed extent of the thesis

60 – 80 pages

Keywords

Economic Development in Turkey, Economic Evaluation in Turkey, Economics in Turkey, Turkish Economy

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Recommended information sources

Aslan, Mehmet Barış, et al. "TÜRKİYE İLE TÜRK CUMHURİYETLERİ ARASINDAKİ EKONOMİK İLİŞKİLER: DIŞ TİCARET, TURİZM ve YATIRIM AÇISINDAN BİR DEĞERLENDİRME." Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 7 Apr. 2019, 10.29029/busbed.500593.

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Declaration

I declare that I have worked on my master's thesis titled "Evaluation of the Economic Development in Turkey" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2022

Ecem Sultan CIRAK

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Evaluation of The Economic Development in Turkey

Abstract

In this thesis, Turkey's economic history, the economic programs it has implemented and its development status since 1923, the year of its establishment, are included, and then the situation between 2001 and 2020 is examined over the economic development factors.

As economic development indicators, GDP and GDP growth rate, Foreign Direct Investments, foreign trade indices, R&D investments, number of patents, Global Innovation index, Human Development Index, happiness index of the citizens of the country, poverty rates and income justice are included in the evaluation. As a result of the study, it has been seen that although Turkey has made progress in many of the economic development indicators since its establishment, it has had difficulties in reaching its goals and lags behind developed countries. The reason for this is shown in the study as the frequent economic crisis due to the inability to create a foreign trade balance, the fact that growth does not cause an increase in the amount of savings despite the growth, on the contrary, it further disrupts the foreign trade balance and income inequality. As a result, it is sugested that in order for Turkey to achieve a regular development trend, it must first establish a foreign trade balance. For this, it is necessary to make plans to increase the added value in export products, and to increase incentives for R&D and technological developments. In order for income distribution to be more equitable, it is necessary to create job opportunities for poor people, and to focus on regional incentive practices in order to spread industrial development throughout the country.

Keywords: Turkey, Economic Development, Growth, Industry, Economic Evaluation

Hodnocení ekonomického vývoje v Turecku

Abstrakt

V této práci je zahrnuta ekonomická historie Turecka, ekonomické programy, které zavedlo, a stav jeho rozvoje od roku 1923, tedy roku jeho založení, a následně je zkoumána situace mezi lety 2001 a 2020 nad faktory ekonomického rozvoje.

Jako ukazatele ekonomického rozvoje jsou zahrnuty ukazatele růstu HDP a HDP, přímé zahraniční investice, indexy zahraničního obchodu, investice do výzkumu a vývoje, počet patentů, index globálních inovací, index lidského rozvoje, index štěstí občanů země, míra chudoby a spravedlnost příjmů. v hodnocení. V důsledku studie bylo vidět, že ačkoli Turecko od svého založení dosáhlo pokroku v mnoha ukazatelích hospodářského rozvoje, má potíže s dosahováním svých cílů a za vyspělými zeměmi zaostává. Důvodem je ve studii častá ekonomická krize v důsledku neschopnosti vytvořit saldo zahraničního obchodu, skutečnost, že růst přes růst nezpůsobuje zvýšení objemu úspor, naopak dále narušuje bilance zahraničního obchodu a příjmová nerovnost. V důsledku toho se navrhuje, aby Turecko dosáhlo pravidelného trendu vývoje, musí nejprve vytvořit bilanci zahraničního obchodu. K tomu je nutné vytvořit plány na zvýšení přidané hodnoty u exportních produktů a na zvýšení pobídek pro výzkum a vývoj a technologický rozvoj. Aby bylo rozdělení příjmů spravedlivější, je nutné vytvářet pracovní příležitosti pro chudé lidi a zaměřit se na regionální motivační praktiky, aby se průmyslový rozvoj rozšířil po celé zemi.

Klíčová slova: Turecko, ekonomický rozvoj, růst, průmysl, ekonomické hodnocení

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GDP: Gross Domestic Product

HTE: High-Technology Export

R&D: Research & Development

GII: Global Innovation Index

WIPO: World Intellectual Property Organization

1 Introduction

Economic development is also an important economic concept that shows the level of development of countries. However, economic development is a broad concept that cannot be evaluated only with economic indicators. The concept of economic development has many different social, political and cultural aspects. Economic development is a very important concept especially for developing countries. The main goal of these countries is to increase the welfare level of the society by realizing economic development. Although there are many different indicators showing the economic development levels of the countries, the most used data in the literature is the per capita income levels of the countries. However, per capita income is not enough to determine the development level of a country on its own. Indices showing the welfare level of people living in a country, such as the Human Development index, are also important data showing the economic development status of countries (Sasmaz & Yayla, 2018).

Turkey was established in 1923 as the heir to the Ottoman Empire, which had been disbanded at the close of World War I. The Republic of Turkey, which remained after the Ottoman Empire, was typically in a dismal economic state. For this reason, the biggest priority of Mustafa Kemal Ataturk, who founded the Turkish Republic and the new government of Turkey, has been to fight for the economic development of the country. Because Ataturk, the founder of the Republic of Turkey, was aware that political independence would only be achieved if economic development was achieved. While the country was being established, Turkey's economic indicators were quite weak. The country both came out of a war that lasted for four years, such as the First World War, and then entered the War of Independence and fought with Greece for 2.5 years. The economy inherited from the Ottoman Empire, which was already quite bad, was in a worsened condition due to the wars. It is possible to summarize the economic indicators of the countries as follows (Ertuna, 2004):

- The country's per capita income is 412 TL,
- Imports 86.9 million dollars,
- Export 50.8 million dollars,
- The ratio of agriculture to GDP is 40%
- The ratio of industry to GDP is 13%.

As can be seen from these indicators, when the Republic of Turkey was established, its economy was almost at the point of collapse. For this reason, the first 15 years of the country's establishment period were spent by the government with efforts to restructure the economy and establish a new economic order. In this period, it is seen that Turkey has taken very important steps in the name of economic development (Kocturk & Golalan, 2010).

In the intervening period of about 100 years, many different economic models have been implemented in Turkey and many economic programs for economic development have been implemented. At this point, it is seen that the Republic of Turkey is at a very good level compared to the conditions of the period when it was founded. We can also see this situation through economic indicators. The status of the above-given foundation period data as of 2021 is as follows (TUIK, 2022):

• National Income Per Capita 85.672 TL,

• Exports 213 billion 676 million dollars,

• Imports 260 billion 679 million dollars,

• The ratio of agriculture to GDP is 1.6%,

• The ratio of industry to GDP is 19.5%.

Compared to the day Turkey was founded, it is seen that there is a large fold in its economic indicators. Since then, while the per capita income has increased almost 200 times, there has been an increase of approximately 5000 times in exports. Although there have been many economic failures and economic crises in this process, it is seen that a significant distance has been covered over a hundred years at the point reached.

In this study, it is aimed to evaluate the economic development of Turkey. In this context, both the economic policies implemented during this century and the economic crises experienced will be included, as well as the economic development of Turkey since the last 2001 economic crisis will be analyzed through economic indicators.

2 Objectives and Methodology

2.1 Objectives

The main purpose of this thesis is to determine the economic development of Turkey. For this purpose, the objectives of the thesis were determined as follows:

• Determining the indicators of economic development,

• Examining the economic history of Turkey and revealing the applied economic policies,

• Evaluation of Turkey's economic development situation.

For the purpose of the thesis, the study is composed of two parts. In the first part, Turkey's economic history and indicators of economic development will be examined, and in the second part, Turkey's economic development will be evaluated.

2.2 Methodology

This thesis will mainly be covered in three parts. The first part of the thesis will consist literature review of the development of Turkey's economy's history and monitoring economic policies. In the second part, factors affecting economic development will be examined. In the last part will be the evaluation of Turkey's economic development. Comparisons will be made with reference to the data evaluation part of the developed countries.

The comparison data that will be used in writing the conclusion part of this thesis will be taken from international research reports and some indexes. Based on this data, the evaluation will be made of economic development in Turkey.

In the thesis, as the development process of Turkey, the process from the 2001 crisis, which was the last economic crisis, to 2020 is discussed. The purpose of choosing these dates is to make a more effective evaluation by minimizing the impact of the crisis. Due to analyze the economic development of Turkey these indicators will be used;

- Annual GDP growth and sectoral distribution of GDP,
- Foreign trade statistics and ratio of exports to import,
- Foreign Direct Investments,
- Human Development Index,
- Happiness Index of the Citizens of Turkey,
- Number of poor people,
- GINI Index,

- R/D Expenditures in GDP (%),
- Number of Technology patents,
- High Technology Exports in total manufactured exports,
- Global Innovation Index Scores and Rankings.

Turkey's economic development between the years 2001-2020 will be revealed within the framework of the above-mentioned indicators, and at the same time, the situation of its economic development according to the general course of the world will be understood by comparing it with the world average and other countries.

3 Literature Review

In this section, Turkey's economic development process will be discussed in detail within the framework of studies in the literature. In this context, this section will be organized under two headings. In the first part, the economic programs that Turkey has implemented since its establishment and the policies it has implemented for development will be explained, and the economic development process will be explained, and in the second part, the economic factors used in the literature in the analysis of economic development will be discussed in order to evaluate the data to be used in the application part.

3.1 History of The Economic Development in Turkey

3.1.1 Economic Situation in the Last Period of the Ottoman Empire and the Establishment of the Turkish Republic

European countries, in which the Ottoman Empire competed, made a transition from agriculture to trade in the process that started with geographical discoveries, and then they made great economic breakthroughs with the industrial revolution. However, due to the fact that the Ottoman Empire followed an economy based on agriculture and could not keep up with the industrial revolution, it fell behind in competition with European countries. This situation also caused the foreign policy of the country to be affected, and with the economic backwardness, the Ottomans fell behind in many other areas. In this process, European states started to get closer to the Ottoman Empire in order to meet the raw material needs for their industries and to market the products they produced to the Ottoman Empire, and by this means, they also started to make many concessions from the Ottoman Empire. XIX. Although the Ottoman Empire realized that it was behind in many areas and tried to make reforms and westernization, there were also many differences of opinion within the country on this issue. Due to the differences and political balances of the West, the Ottoman Empire sought an ally and chose Germany as an ally in this period. It has received the support of Germany both in the industrialization process and in many reforms since this date (Imamoglu, 2016).

It is seen that the Ottomans carried out some reforms in the financial system, especially since the 1839 Tanzimat period. After the Tanzimat period, changes were made in the tax system and some reforms were made in order to meet the public expenditures with taxes, and tax collection was simplified by connecting many tax items to a single tax item. I. Constitutional Monarchy and II. This system was continued until the Republican period by making some additions during the constitutional monarchy periods. However, the reform movements and the burdens of the wars started to shake the economic power of the Ottoman Empire, and from the 19th century, the capital of western countries began to slowly enter the Ottoman economy. The Ottoman state did not borrow from foreign countries until the 19th century and preferred the method of borrowing with high interest from the bankers located in the country, while the excess of expenditures created a pressure on foreign borrowing. Especially during the Crimean War that took place between 1853-1856, the Ottoman state had to take its first foreign debt when it was difficult to pay the debts it had taken from within the country. The Ottoman state made its first foreign borrowing in 1854 and from this date until the beginning of the First World War, it went to foreign borrowing a total of 41 times (Eroglu, 2010).

At the same time, the Ottoman state started to enter into trade relations with European countries since the 19th century, but while these relations worked in favor of industrialized European countries, it put the Ottoman state in a difficult situation both economically and politically. The first trade agreement signed by the Ottoman state was with England in 1838. With this agreement, the process of opening up to the outside of the Ottoman Empire in trade started, and with this process, the economy of the Ottoman Empire, which was closed until this date, gradually began to come under the domination of the West. After this agreement signed with England, agreements with other European countries started to be made in a short time. The changes in the import and export data of the Ottoman State after these agreements are shown in Table 1 (Kalabak, 2014).

Table 1. Ottoman Empire 1840-1912 Import-Export Data

Years	**Import(Thousand Ottoman Liras)**	**Export(Thousand Ottoman Liras)**	**Deficit(Thousand Ottoman Liras)**
1840’s	7.845	5.899	1.946
1873-1877	22.356	16.402	5.954
1900’s	20.822	12.202	8.620
1910-1912	36.436	19.967	16.739

Source: Kalabak, 2014

As seen in Table 1, while the Ottoman state's exports have increased nearly fivefold in the 70 years from the first commercial agreement, imports have not remained consistent, and the current account deficit has increased nearly eightfold by 1912. The Ottoman state was viewed by Western countries not just as a commercial market, but also as a site where they might invest their capital. The major purpose of foreign capital in this context was to be able to operate in their own nations by utilizing the Ottoman Empire's raw material resources. For this reason, foreign capital, which started to enter the Ottoman Empire from the second half of the 19th century, was used for the benefit of European states rather than contributing to the development of the Ottoman Empire by establishing factories (Kalabak, 2014).

It can be seen from Table 1 that the opening of the Ottoman Empire in trade and the agreements it has made have created a foreign trade deficit. In order to finance this deficit and meet the necessary borrowing needs, the Ottoman state paved the way for European-based banks to open branches within the country. While the opening of banks in the West was to provide financing to the industry, the Ottoman banks were opened as a financial tool in order to pay their debts. Due to the fact that the borrowed debts were not used for industry or development, it became impossible to pay these debts after a certain period of time, and the Ottoman Empire had to declare a moratorium in 1875. After the moratorium was declared, in 1881, an organization called Duyun-u Umumiye was established by the creditor countries in order to pay the debts regularly. With the opening of the Duyun-u Umumiye, there was an increase in foreign capital coming to the Ottoman Empire. While there were 19 foreign joint stock companies until the year Duyun-u Umumiye was opened, this number increased to 193 only between 1882 and 1914 (Eroğlu, 2010).

However, it should be noted that since the second half of the 19th century, foreign investors had many privileges compared to Turks. These privileges were frequently used in mining and in enterprises such as railways and electricity networks. However, these businesses and activities were not used for the development of the Ottoman Empire, but rather the incomes earned here were taken to their own countries. Information on investments made by foreign capital within the Ottoman borders is shown in Table 2 (Kalabak, 2014).

Table 2. Foreign Capital Investments in the Ottoman Empire Before the First World War

Investments	Investment Amount(Thousand Ottoman Liras)	Annual Net Income(Thousand Ottoman Liras)	Return rate
Railways	53310	1040	1,95
Electricity, Tram, Water	5700	170	2,98
Port and Pier	4710	160	3,4
Industry	6500	560	8,61
Trade	2660	-	-
Mines	3580	230	6,42
Bank and Insurance	8200	890	10,85
Railway Kilometers Paid by the State. assurance	-	420	-
Total	84660	3370	3,98
External Debts of the State	149480	13000	8,7
Grand Total	234140	16370	6,99

Source: Kalabak, 2014

Looking at Table 1, it is seen that the highest return on income is the banking and insurance sector with 10.85%. After the banking and insurance sector, government debt comes with 8.7%. As it can be understood from here, the most profitable investments for foreign capital in the last period of the Ottoman Empire come from financial support. The profits that foreign capital earns here also means the money of the Ottoman Empire going out of the country. This amount is more than 16 million Ottoman liras per year. When the 8 million lira foreign trade deficit of the Ottoman Empire is added to this amount, it is seen that 25 million Ottoman liras went out of the country annually. This figure corresponds to 12% of the Ottoman GDP (Kepenek and Yenturk, 2010).

Duyun-u Umumiye was used as a tool to make the Ottoman empire a colony of the West by acting like another state within the state, and it did not make any positive contribution to the Ottoman economic development. The European states turned the Duyun-u Umumiye into a pressure tool on the Ottomans. In this way, they established a great dominance over the Ottoman Empire politically and economically. Most of the taxes collected in the country were taken by Duyun-u Umumiye and the country was becoming an economic dependency. The main reason for the Ottoman borrowing in this period was the closing of trade deficits. For this reason, the Ottoman Empire did not have the opportunity to develop and industrialize economically in the 19th century, and it entered the First World War in 1914 under these conditions (Yucel, 2017).

The last period of the Ottoman Empire was spent with wars such as Tripoli, the Balkans, and finally the First World War, which put the economy under a much heavier burden. However, both the male population who died in the wars and due to the war both out-migration and out-migration had increased a lot, and the demographic structure had also changed and decreased. The lack of labor in agriculture, which constitutes the majority of GDP and exports, caused a decrease in agricultural products, therefore food shortages began to be experienced. The economic situation remaining from the Ottoman Empire after the First World War can be summarized as follows (Yucel 2017):

• Due to the wars, there was a great decrease in the male population and a large part of the population became orphans and widows. Due to this situation, labor loss occurred.

• 80% of the population is engaged in agriculture and most of the country's GDP is agricultural. However, due to the fact that the tools used in agricultural production are quite old, the yield is quite low. However, during the war, the number of animals decreased by 50%, wheat production decreased by 30%, and the reductions in many agricultural products reached 50%.

• There has been an increase in imports due to the commercial agreements made since the second half of the 19th century, and therefore the domestic production of many products has decreased. Domestically produced cotton woven products could meet 10%, wool woven products 40%, and silk products only 5%. The demand for products such as forks, knives, glass and porcelain was met entirely by imports.

• The first bank of the Ottoman Empire, Bank-ı Osmani (Ottoman Bank), was established in 1856, and this bank had an equal partnership with a French financial institution in 1863. In the following years, this bank also became the official bank of the Ottoman Empire. It became a state treasury in 1875. After this bank, a total of 16 more foreign banks were established. In 1866, Ziraat Bank was established as a local bank to help farmers.

The Ottoman Empire came to the brink of disintegration after the First World War that lasted between 1914-1918, and after the War of Independence, which was won with the National Struggle between 1919-1922 under the leadership of Mustafa Kemal Atatürk, it was replaced by the Republic of Turkey, which was founded on October 29, 1923.

3.1.2 1923-1929 Establishment and Restructuring Process

As aforementioned, the Turkish Republic inherited a terrible economic situation from the Ottoman Empire when it was founded. To look at it another way, the Republic's primary objective was to modernize the country and ensure its economic and political independence. Mustafa Kemal Atatürk, the country's founder and first President, was a genius who saw that economic independence was the key to the country's political independence. In fact, in a speech to the parliament before the republic was formed in 1922, he described the situation as follows (Yucel, 2017):

"Sirs, the aim of our struggle today is complete independence. Achieving full independence is only possible with financial independence. When the original of a state is deprived of independence, independence in all vital parts of that state is crippled. Because every state organ can only live with finance. The first condition for the preservation of financial independence is the compatibility and balance of the budget with the economic structure. Therefore, in order to keep the state structure alive, it is necessary to find solutions and measures to manage the country with income sources without resorting to foreign countries, and it can be found."

Ferit Bey, who was also the first finance minister of the Republic, expressed the situation taken over from the Ottoman Empire and the importance of industrialization in a speech as follows (Tezel, 1994):

"…the factory that we need the most is (again) the factory. Turkey works and produces, but others benefit from its products… we sell the primitive materials that we obtain by shedding hard work… we sell them out of pocket. Then foreigners change the shape of these materials and return them to us… We give an okka of wool for forty cents, and we get the same wool back by begging for one thousand two hundred cents a meter of cloth."

For all of this specific purpose, the "İzmir Economics Congress" was one of the first activities of the Republic of Turkey's first government, which has seen economic development as a key to the country's stabilization and full independence. Even before the Lausanne Peace Agreement was signed and the republic was declared, 5 months just after end of the War of Independence, an Economics Congress was decided to hold in Izmir, and a program for the country's economic development was created. On February 17, 1923, the İzmir Economy Congress was held, with leaders from every sector in present. The

Economics Congress made decisions that impact many fields. The following are some of the decisions taken (Kepenek & Yenturk, 2005):

• Children under the age of 12 not working or working 4 hours in light jobs,

• Employees taking one month off a year and being considered as one day off a week,

• Abolition of the tithe tax paid by the farmers,

• Improving communication opportunities in villages and towns,

• Establishing a factory for agricultural machinery used in agriculture and animal husbandry and training repair masters,

• Establishment of a commercial bank that will provide loans to traders,

• Full use of the cabotage right by restricting the trade of foreigners in our ports,

• Opening of new ports

• Suspension of imports for products that can be produced in the country,

• Establishment of an industrial bank that will provide loans to industrialists by supporting the industry

• Customs exemption for machinery to be used for industry.

It is seen that the majority of the decisions taken at the Izmir Economics Congress could be realized within a few years. The first of these was the establishment of İşbank, which was established a year after the congress and has the status of a semi-private semi-public bank. Tithe tax was abolished for farmers in 1925, and the National Savings Society was established in 1929 to encourage the production of domestic goods and to reduce imports (Kepenek & Yenturk, 2005).

In the first years of the Republican era, steps were taken to establish domestic banks that could support entrepreneurs and to nationalize the financial sector. The dominance of foreigners in the financial sector in the late Ottoman period and its consequences were mentioned above. In this context, one of the ways of economic independence, which is one of the priorities of the newly established state, was to ensure localization in the financial sector. For this purpose, within the first ten years, nearly thirty banks with domestic capital were established together with İşbank. In Table 3, changes in the banking system since the establishment of the Republic of Turkey are given for the first 25 years (Gungul, 2015).

Table 3. Share of Foreign, Private Turkish and State Banks in the Banking System (1924-1950) (%)

Years	Foreign Banks	Private Turkish Banks	Public Banks
1924	78	12	10
1924-1929	57	20	23
1930-1934	30	27	43
1935-1938	22	35	43
1939-1945	19	33	48
1946-1950	17	39	44
1950	14	41	45

Source: Tezel, 1994

Table 3 shows that, as a result of the choices made by the first government of the Republic of Turkey at the Izmir Economy Congress, significant progress has been achieved toward nationalizing the banking sector. Foreign banks' share of the banking system was cut from 78 percent in 1924 to less than 15 percent in 1950.

One of the topics addressed with the foundation of the Republic was public finance. Knowing the costs of running a budget deficit, the government adhered to rigorous policies to avoid running a deficit every year. Table 4 shows the government's fiscal status until 1929, when it rigorously adhered to the balanced budget idea.

Table 4. 1923-1929 Public Finance Data, Sectoral Ratio; GDP Data

Year	Income	Expenditure	Deficit	Agriculture	Industry	Trade	GDP
1923	111,3	105,9	+5,4	39,8	13,2	7,8	952,6
1924	138,4	131,6	+6,8	47,6	9,9	7,1	1023,8
1925	170,7	202,3	-31,6	48,6	9,7	7,2	1525,6
1926	180,2	172,5	+9,1	49	10,1	7	1650,5
1927	201,6	199,1	+2,1	41,4	13,0	8	1471,2
1929	224,2	212,8	+11,4	51,9	9,9	6,3	2073,1

Source: Gungul, 2015

During the establishment of the Republic and until 1929, the foreign trade deficit was the result of the inability to increase exports as much as the increase in imports. The high rate of imports of basic consumption products, which could not reach the stage of being produced within the country, prevented the closing of the foreign trade deficit. However, the high added value of the imported products and the country's export income only through the agricultural sector caused a difference in terms of export and import. Towards the end of the 1920s, the increase in production due to the mechanization of agriculture in the world also caused the prices of agricultural products to decrease, thus Turkey's trade deficit also widened (Yucel, 2017). In addition to these reasons, the restrictions in customs tariffs with the Lausanne agreement in the first 10 years of the republic and the instability in production are among the reasons for the foreign trade deficit. Table 5 shows Turkey's foreign trade data between 1923 and 1929.

Table 5. 1923-1929 Turkey's Foreign Trade and Balance (Million TL)

Years	Import	Export	Export/Import	Balance
1923	144,8	84,7	58	-60,1
1924	193,6	158,0	82	-34,7
1925	241,6	192,4	79	-49,2
1926	234,7	186,4	80	-48,3
1927	211,4	158,4	83	-53,0
1928	223,5	173,5	89	-50
1929	256,3	155,2	67	-101,1

Source: Gungul, 2015

With the establishment of the Republic, the main policies targeted by Turkey on the path of economic development were nationalization in all sectors as much as possible for the country to be fully independent, and the anti-inflationary money-credit policy, which preserves the value of the Turkish lira, in order to keep the public finances in balance. While the government was doing this, it was desired to implement a system in which both the private sector and the public took a role together, which is expressed as a mixed system. However, due to the scarce resources of the country, lack of trained manpower and some restrictions brought by the Lausanne agreement, it is seen that the desired goals were not fully achieved until 1929, the date when the first 5-year development plan was terminated.

3.1.3 1929-1950 Development Years

The legacy of the Republic of Turkey from the Ottoman Empire was an economic model based entirely on agriculture. For this reason, the founders of the country primarily had an understanding of the industrialization of the country. Due to the agriculture-based economy model, the great ranch is still financially dependent on foreign countries, and the way out of this situation was only through the development of the country's industry. For this reason, these statements were included in the country's first five-year development plan (Şahin, 2007):

“The big industrial countries easily agree to leave the agricultural countries as producers and sellers of raw materials at all times and to dominate the markets of these countries, despite the arguments and disagreements among them. For this reason, they will unite and use their political influence to prevent the agrarian countries from shaking off. Some agricultural countries will accept this in exchange for small concessions. This fact is our biggest incentive to establish the industry we need without wasting time. Turkey is absolutely against the role of the agricultural country that is being given to it.

As mentioned above, Turkey could not find the opportunity to reach its goal of industrialization to the extent it wanted at the end of the first 5-year development plan. However, between the years 1930-1939, a more statist economic policy was followed and industrialization was carried out by the state. However, the economic crisis called the Great Depression, which started in 1929 before 1930, affected Turkey to a large extent as well as the whole world.

The source of the 1929 Depression was the USA New York Stock Exchange. The beginning of the crisis, also known as Black Friday, started with the collapse of the US stock markets, and it affected first the developed countries and then the whole world. This crisis first caused a contraction in production, then a contraction in demand, and particularly sharp decreases in the prices of agricultural products. Turkey, of which nearly 80% of its exports are made up of agricultural products, has naturally been greatly affected by this crisis. For this reason, there was a great decline in Turkey's exports during the depression period. There are two other situations that make 1929 important for Turkey. The first of these is that it is the year in which the first installment of the debts remaining from the Ottoman Empire will be paid. The second is that the Customs restrictions arising from the Lausanne agreement were lifted on this date. Together with these two situations, the world economic crisis caused the Turkish Lira to lose value significantly in 1929. The Turkish lira, which decreased to 1004 kurus against a pound in mid-May 1929, decreased to 1039 kurus in October and to 1069 kurus in early December (Yucel, 2017).

The Global Depression affected Turkey the most in the field of agriculture. The great price drops in agricultural products and the contraction in exports caused great problems in the agricultural environment. Major economic problems such as the inability of farmers to pay their loan debts, the bankruptcy of commercial companies and industrialists are among the problems that the country experienced due to the 1929 depression. Since the 1930s, the gradual decrease of the effects of the crisis forced the government to take more serious steps in industrialization and the government switched to a statist economic model (Gungul, 2015).

The monetary policy of the first government of the Republic of Turkey was a policy to limit the money supply. Therefore, from 1924 to 1938, the money supply was around 2% on average. This situation continued until the Second World War began. However, during the war, this figure was increased to an annual average of 30%. The amount of money supply in circulation between the years 1923-1944 in Turkey is shown in Table 6.

Table 6. 1923-1944 Turkey's Money in Circulation (Million TL)

Years	Money in Circulation	Annual Change
1924	156	-
1926	159	0
1928	165	3
1930	169	1
1932	167	-2
1934	155	1
1936	175	7
1938	191	2
1940	365	43
1942	636	26
1944	939	23

Source: Gungul, 2015

Although GDP decreased during the Great Depression, a gradual increase is observed after the effects of the depression began to decrease. The national income, which was 1.2 billion TL in 1934, increased to 2 billion TL in 1939. It is seen that the government's efforts and policy towards industrialization have an impact on this increase. Because, within the GDP, there was a 172% increase in the industrial area in this period. The growth of GDP between 1930-1939 was 5%. In addition, per capita income increased from 109 TL to 119 TL in this 9-year period. As it can be understood from these data, from 1930 until the beginning of the Second World War, Turkey caught an industrialization trend and the country's economy attained a certain stability. The state of the country's foreign trade in this range of years is shown in Table 7.

Table 7. 1932-1939 Turkey's Foreign Trade and Balance (Million TL)

Year	Export	Import	Deficit
1932	86	101	+15
1933	96,2	74,7	+21,5
1934	92,2	86,1	+5,3
1935	95,8	88,8	+7

1936	117,7	92,5	+25,2
1937	138	114,4	+23,6
1938	144,9	149,8	+4,9
1939	127,4	118,2	+9,2

Source: Gungul, 2015

As seen in Table 7, Turkey did not have a foreign trade deficit until the Second World War after the Great Depression. The reason for this situation was the removal of customs restrictions applied in accordance with the provisions of the Lausanne Treaty since 1929 and the implementation of free customs policies. Since 1929, the government has implemented policies to close the foreign trade deficit and has been successful in this. As seen in Table 7, Turkey had a deficit of 4.9 million TL only in 1938 between these dates. In this period, imports were cut by half, and the share of imports, which was 15% of GDP between 1923-1929, was reduced to 7% between 1930-1939.

When we look at the public finances, it is seen that the balanced budget principle, which was followed between the years 1923-1929, continued to be complied with. Except for the year 1933, when there was a deficit due to the Great Depression, it is seen that the revenues and expenditures of the public budget were equal to each other and there was a budget surplus. The first administration of the Republic of Turkey followed a rather uncompromising policy regarding the public budget until the beginning of the Second World War. Turkey's public budget income and expenditure data for the years 1933-1939 are shown in Table 8.

Table 8. 1933-1939 Turkey's Public Budget Data (Million TL)

Year	**Income**	**Expenditure**	**Deficit/Surplus**
1933	198,6	205,4	-6,5
1934	241,2	228,8	+12,1
1935	266,8	259,5	+7,3
1936	270,8	265,8	+5
1937	317	310,7	+6,3
1938	329,3	314,7	+4,6
1939	388,3	394,4	-6,1

Source: Republic of Turkey Ministry of Finance

From the Great Depression to the beginning of the Second World War in 1939, it is seen that Turkey entered a development process. There was an increase in public investments and private sector investments, and the number of enterprises also increased in this period. In this period, while public investments are mostly focused on infrastructure such as railways and highways, private sector investments are mostly in the direction of construction, trade and agriculture sectors. In this period, an increase of more than two times was observed in the amount of raw materials used by the private sector. Again, there is an increase of more than three times in the rate of added value (Çavdar, 2003). The distribution of public and private sector investments in Turkey between the years 1933-1940 is shown in Table 9.

Table 9. 1933-1939 Turkey's Distribution of Total Investment (Million TL)

	Public Investments	**Private Sector**	**Total**
Industry Investment	154(%29,1)	58,4 (%11,2)	212,8 (%20,2)
Railway Investment	147,5 (%27,8)	-	147,5 (%14)
Hıghway Investment	132,4 (%25)	-	132,4 (%12,6)
Local Government Investment	94,4 (18,3)	-	94,4 (%9)
Agriculture Investment	-	104 (%19,9)	104 (%9,9)
Construction Investment	-	240 (%45,9)	240 (%22,8)
Trade/Service Investment	-	120 (%23)	120 (%11,4)
Total Investment	528,7 (%100)	522,4 (%100)	1051,1 (%100)

Source: Cavdar, 2003

The state was in the forefront of industrialization during the 1930s and 1940s. However, it appears that the government purchased certain international firms under the pretense of nationalization. The following businesses have been nationalized as a result of foreign investor purchases:

• Istanbul Dock and Warehouse Company

• Istanbul Water Company

• Izmir Tramway Management

• İzmir-Afyon and Manisa-Bandırma Railway Lines Operation

• Istanbul Telephone company

• Eastern Railways Lines Operation

During this time, the number of government entities within the realm of statism grew dramatically. Table 10 shows the number of government institutions between 1932 and 1939.

Table 10. 1932-1939 Turkey's Ratio of Government Institutions

Years	Government Agencies	The Ratio of Government Agencies
1932	31	2,1
1933	36	2,5
1934	38	2,7
1935	56	4,8
1936	86	7,8
1937	89	7,9
1938	104	9,4
1939	111	9,7

Source: Kasalak, 2012

With the end of the first development plan that Turkey had made, studies for the second development plan started and the Second Development Plan came into effect in 1937. In the Second Industrial Plan, there was a plan aimed at increasing the domestic capital with the support of the state. However, it was not possible for this plan to be successful due to the Second World War that broke out right after this plan was put into effect. Although Turkey did not actually take part in the Second World War, it was negatively affected by this process economically. The cessation of relations with many countries and the additional budgets allocated to defense are the main reasons for this. The country has increased its defense budget to 60% so that it can go to war at any time (Uzunkaya, 2020).

With the end of WWII, like all other countries, a new development plan was prepared, and 615 million dollars were asked from the European Development Fund for its implementation, but this request was denied because the proposed plan included socialist statism. This plan had to be scrapped, and a new program for US Marshall aid had to be developed, but the US insisted that the new program be based on agriculture. Under the presidency of Kemal Süleyman Vaner, the Chief Counselor of the Ministry of Economy at the time, a new plan known as the "Vaner Plan" was implemented. Thus, the liberal approach took its place in the Turkish economy for the first time. In this plan, the USA aimed to create a market for itself by insisting on the import of agricultural machinery, and it was successful in this. Thus, Turkey was included in the scope of Marshal aid and at the same time became a member of the Organization for European Economic Cooperation (OECD) (Kepenek & Yenturk, 1997).

3.1.4 1950-1960 Liberal Economy Period

1950 was a very important year in Turkey's politics and economic development process. Because in 1950, the Democrat Party in Turkey gained an overwhelming majority in the elections, thus the 27-year single-party period came to an end. Adnan Menderes became Prime Minister and was the determinant of the country's economy and politics for ten years. Adnan Menderes adopted a liberal economic model. He explained this situation as follows while describing the goals of his party in the parliament (Yucel, 2017):

"..... the basis of our economic and financial views can be expressed as, on the one hand, minimizing government interventions, on the other hand, narrowing the public sector in the economic field as much as possible and expanding the field of private enterprise as much as possible by giving security to it. One of the first consequences that will arise from following these principles will be to confine the establishment and management of the state, due to its nature and nature, only to businesses that cannot be handled by private enterprise and capital, and also to economic affairs that are in the nature of public service. Because, in our opinion, in an economic regime based on private property and personal freedom, the economic field should primarily belong to a private enterprise as an individual or company. The state's direct involvement in economic enterprises, taking on duties in the economic field as a supervisor or supervisor, should only be an exception and should be limited to absolute necessity."

The Menderes government continued its liberal policies until 1955 and made progress in the direction of development. However, since 1955, the growth rate has slowed down, and the external debt has also increased and the search for debt has begun. Therefore, the period of the Menderes government can be evaluated in two parts as the 1950-55 period of abundance and the period of 1955-60 as the period of poverty. With the liberalization of foreign trade since 1950, a great increase has occurred in imports, but this situation has caused foreign exchange problems since 1955. Because the export side was not enough to meet the imports, the foreign trade balance deteriorated to a large extent. Turkey has sought ways to find foreign debt since 1955, but has had difficulties in finding foreign debt due to the proposed stabilization programs. In the negotiations held in Paris in 1958, the prerequisite for the establishment of a Ministry of Coordination was brought in order to provide assistance, and in 1959 a committee under the chairmanship of Prof Jan Tinbergan started working to prepare a development plan.

Although targets were set for liberalization in Turkey between 1950-1960, there was an increase in imports and a disproportionate growth, as this could not be achieved and the production side remained weak. Therefore, the increase in borrowing has led to the deterioration of the country's economy.

The data of Turkey's foreign trade between the years 1950-1960 are shown in Table 11.

Table 11. 1940-1950 Turkey's Foreign Trade Balance

Years	Export	Import	Deficit
1950	263	286	-23
1951	314	402	-88
1952	363	556	-193
1953	396	533	-137
1954	335	478	-143
1955	313	498	-185
1956	305	407	-102
1957	345	397	-52
1958	247	315	-68
1959	354	470	-116

Source: Parasız, 1998

As can be seen from Table 11, Turkey had a foreign trade deficit every year between the years 1950-1960. Although there was no problem in closing this gap due to Marshall aids until 1955, problems began to be experienced as of 1955. This is also evident in GDP growth. The GDP, which increased between 1950 and 1955, started to decline from 1955 onwards. The GDP growth rate of Turkey between the years 1950-1960 is given in Table 12. Since 1955, the changing balances prompted the government to become more statist and to increase the state intervention in the economy, so the liberalization goal was left unfinished.

Table 12. 1940-1950 Turkey's GDP Growth Rate

Years	GDP(Million TL)	Gdp growth Rate
1950	38506	9,4
1951	43446	12,8
1952	48621	11,9
1953	54091	11,2

1954	52480	-3
1955	56642	7,9
1956	58428	3,2
1957	32995	7,8
1958	65984	4,5
1959	68521	4,1

Source: Parasız, 1998

When we examine the Democratic Party's economic policy, we can see that in its early years, it pursued policies aimed at bringing it closer to the western capitalist system and liberalizing foreign trade. It paved the path for foreign money and followed pro-import policies with the laws it passed. In the first period, agricultural productivity grew as a result of Marshall assistance, while agricultural areas increased as a result of mechanization of agriculture. The construction of infrastructure facilities like as highways, water, and energy has accelerated, and these investments have fostered a general sense of confidence, particularly in the first five years. However, since 1955, this optimistic mood started to deteriorate, and it shows itself in all economic data. Until 1950, policies that Turkey gave importance to industrialization were left in the background, followed by a growth model based on agriculture and the privatization of state factories did not achieve success in terms of general economic development. Since 1955, the country was quickly dragged into a currency crisis, which led the Democrat party to follow strict statist policies by moving away from the philosophy of liberalization. Since 1955, the Democratic Party has returned to statist policies, however, due to its debt burden, it had difficulty in forming a policy suitable for saving the country from depression (Yucel, 2017). In 1960, the Democrat Party administration was ended with the first military coup of the Turkish Republic and a new era began in the applied economic policies.

3.1.5 1960-1980 Planned Economy Period

Between 1950 and 1960, the country's development slowed due to disproportionate expansion induced by economic fluctuations, particularly since 1955. Despite the fact that the public's influence on the economy was lessened and greater liberalization targets were set during this time, success was not achieved. The lack of coordination among the projects being carried out, as well as the financial difficulties encountered during project execution, are some of the key causes of this predicament (Karluk, 2007). After the 1960 coup, the planned economy became the expectation of all public opinion, given that the main blunder made in 1950-1960 was the lack of plans and programs. As a result, since 1960, "planning" has been declared a fundamental principle for achieving economic development goals. One of the earliest projects undertaken for this goal was the founding of the State Planning Organization in 1960. (Uzunkaya, 2020).

The State Planning Organization issued its first report for the 1961 budget as soon as it was founded, and the 1962 program was designated as a transitional program to a one-year planning process. This program laid a foundation for transition and addressed concerns that needed to be addressed immediately. The SPO implemented a total of four development plans in the following period, extending the projected period through 1980. The following are some of the common characteristics of these development plans:

• The main data of these plans are economic and social structures.

• Its main determinants are economic growth and annual growth rates.

• Their priority is industrialization.

The first of these development plans came into effect in 1963. This plan mostly sets out medium and long-term goals and strategies, and sets out the targets for how the new era will be shaped. This plan basically laid out a 15-year strategy and set 15-year targets. The targets set by this plan for 15 years are briefly as follows:

• To provide a growth rate of 7%,

• To provide a balance between import and export in foreign trade,

• To observe the principles of economic justice in the society.

In the plan, it was emphasized that the investments that the state should make are the investments that cannot be made by the private sector. In addition, it was stated in the plan that investment priority should be given to sectors producing capital goods and exporting sectors in order to increase capital within the country (Bozkurt, 2011).

Between the years 1963-1967 covered by the plan, the annual average growth was 6.7% and was 0.3% less than the targeted growth rate. Among these years, the highest growth rate of 10.5% was realized in 1966. In the First Development Plan, the investment expenditures in GDP were targeted to be 19.4% by the end of 1967. However, although an increasing rate was achieved every year, the ratio of investment expenditures to GDP remained at 16.6% in 1967. However, the share of industry and service sectors in GDP increased during this period, and the share of agriculture decreased. As predicted, a transition has occurred in the workforce from the agricultural sector to the industrial sector (Bozkurt, 2011).

After the First Development Plan, the Second Development Plan, covering the years 1968-1972, was prepared to enter into force in 1968. In this plan, unlike the first plan, agriculture, mining, manufacturing industry, construction, services and the public sector were handled separately, and the plan was written under two headings, national and international. In this plan, it is seen that the industrial sector is given more importance than the other plan (Kongar, 1976). It gives a brief summary of the plan written by the Prime Minister of the time, Süleyman Demirel, in the preface of the plan (Yucel, 2017):

"The Second Five-Year Plan, which draws the main framework of our total development between the years 1968-1972, was prepared after long studies and was accepted after the meticulous and valuable examination of our assembly. In the Second Five-Year Plan period, our national income will increase by 7 percent every year and income per capita will rise from 2600 liras to 3200 liras. The plan is an important step towards moving Turkey from a rudimentary economic body that sells raw materials and buys finished products, to an industrialized body that manufactures and sells finished products. Thus, the share of our industry in the GDP will increase from 25.5 percent to 30.7 percent."

In this plan, similar to the first plan, it is seen that the growth target is determined as 7% per year. In addition, it is foreseen that the industrial sector will be the locomotive in reaching this plan. Average growth rates in agriculture and industry, the two dominant sectors of the economy, were kept at 4 percent and 12 percent, which is close to the previous levels. In the Plan, in which a rapid and stable development rate was envisaged, the value of the GDP from 85.1 billion liras in 1967 was increased to 119.4 billion liras in 1972, and a growth of 40.3% was targeted. In order to reach these targets, it is planned to increase the investments by 11.4 percent on average per year, and to invest 119 billion TL in order to achieve this. Thus, the share of investments in the National Product, which was 19.9 percent in the last year of the First Plan, was programmed to increase to 22.3 percent in 1972 (Yucel, 2017).

In the Second Development Plan, the contribution of the industry to the production surplus reached 10% with the effect of exports. Despite the evolution of the manufacturing industry, consumer goods had the largest share in production in the year the plan was completed. While the production of consumer goods was 63.3% in 1962, this rate was 52% in 1967 and 46.4% in 1972 (Bozkurt, 2011).

In the planned period starting from 1960, Turkey started to face foreign trade imbalance since 1964. The government, which went to the path of industrialization with imported inputs, started to experience an increasing shortage of money since the mid-1960s. In the industrialization process, the industry's dependence on imported raw materials has become the most fundamental problem for the country. Getting out of this inward-looking system called import substitution has started to become a problem. The fact that exports are limited to agricultural products, as in previous years, seems to lag far behind imports (Erdost and Berksoy, 1982: 54). For this reason, the government had to devaluate by announcing a new stability program in 1970. The stability program announced by the government briefly includes the following actions (Bozkurt, 2011):

• Turkish Lira was devalued by 67%.

• Liberation was made in exports.

• Interest rates were increased.

• New taxes such as property tax and business tax have been added to the tax system.

• High rate raises were made for the products of the Public Economic Enterprises.

Although the Third Development Plan was planned as the last part of the 15-year strategy under normal conditions, it was planned as a completely new beginning and became the first plan of the new period. The factors that caused this situation were the technological developments in the world and the experience taken from other plans, besides, the protocol for joining the European Economic Community with the Ankara Agreement changed the way of planning as a new situation. In the third development plan, the idea that the increase in national income alone is not a sufficient indicator for development prevailed, therefore, transforming the social structure into an industrial society was put among the targets. It was decided to make larger investments in the industry and at the same time, it was decided that the state should assume a leading role in industrialization. It is aimed to direct the private sector for long-term purposes with incentive policies (Han, 1999).

The objectives of the Third Development Plan are briefly as follows (Sahin, 2000):

• Resolving the negativities in the foreign trade balance with export and import substitution,

• Creating sustainable employment opportunities for unemployment,

• Increasing mechanization in order to increase productivity in the agricultural sector,

• Increasing productivity in society in general.

In the third development plan, the growth target was determined as 7.9%, but at the end of the plan, the growth rate remained at 6.5%. The growth rate of the agricultural area was targeted as 3.4% and realized as 3.3%. In the industrial sector, the value added target of 11.4% remained at 9.9%. By 1977, the country was faced with a shortage of foreign currency again, and the devaluation rate reached 50% (Sahin, 2000).

GDP, Population, agriculture and Industry growth rates between 1960 and 1980 are shown in Table 13.

Table 13. 1959-1977 Turkey's GDP, Population, Agriculture and Industry Growth Rate

Period	**Annual Growth rate(%)**			
	Population	**GDP**	**Agriculture**	**Industry**
1959-1961	-	3,1	-1,5	15,4
1963-1967	2,46	6,7	3,7	16,2
1968-1972	2,52	6,6	3,6	19,3
1973-1976	2,50	7	3,3	21,5

Source: State Planning Organization

As it can be seen from Table 13, although the plans made seem to contribute to the development of the country based on the data, in fact, only the growth rates of sectors and GDP cannot be considered as a sign of development. As a matter of fact, despite these data, the country came to the brink of a dead end once again in 1977. The foreign exchange shortage in 1958 was experienced again and the problems that were tried to be solved by taking temporary measures became inextricable. The main reason for this is that the imports for industrialization are much higher than the exports.

Some occurrences and external causes that occurred during the implementation of the first three programs appear to be an impediment to the country's progress. The most essential of these factors (Bozkurt, 2011) can be described as follows:

- 1974 OPEC crisis (5 times increase in crude oil prices)
- 1974 Cyprus operation and its financial costs
- Problems with unemployment and inflation in nations with which Turkey has business ties.

When we examine the public financial situation between 1960 and 1980, we can see that there is a gap between what was intended and what was achieved, and that the targets were not met. Table 14 shows information on plans produced between 1960 and 1980, as well as the current position.

Table 14. 1962-1978 Public Finance Indicators

Period	Public Income		Tax Burden		Additional Finance/Public Expenditures		Investment in Public Expenditures	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
1962	-	21,6	-	13,6	-	0,5	-	31,4
1963-67	26,7	23,1	16,8	13,2	2,6	2,3	39,7	35,3
1968-72	28,2	25,6	18,6	15,2	4,6	6,6	39,6	34,7
1973-77	27	23,7	23,1	17,6	5,9	21,6	43,8	38,8
1978	27,5	26	24,9	19,1	-	13,7	33,8	31,6

Source: Kepenek and Yenturk, 1994

The main reason why the public finances could not reach their targets was the problems arising from the State Economic Enterprises, which received 40-45% of the public investments. Investments made in State-owned Enterprises generally provided a return below their cost and the desired income could not be obtained. The reason for this is that investments made through State-owned Enterprises take a very long time and cost 2-3 times the projected costs. However, in this period, it is also observed that realism was avoided and planning mistakes were made (Kepenk & Yenturk, 1994).

It is observed that the public side outweighs the private sector in the third period development plan. The public has started to occupy an important place in the industry, especially through the State Economic Enterprises. In the period up to 1978, the public presence in the industrial sector continued to increase. During this period, State Economic Enterprises constituted 50% of the industrial area proportionally. The most important problem of the period when the Third Development Plan was implemented was the increase in foreign debt. From 1970 to 1978, Turkey's external debt increased more than 5 times and in 1978 the amount of external debt reached 10 billion dollars. However, the fact that more than half of the debts are short-term debts has put Turkey in a very difficult situation. The increase in foreign debts caused an inflation explosion in the country, and inflation, which was 52.6% in 1978, increased to 107.2% in 1980, two years later. This inflation figure, which emerged in 1980, is the largest inflation value to date (Yucel, 2017).

Although the fourth development plan was prepared and put into effect in 1978, the change of government in 1979 and the events that took place in 1980 did not allow the implementation of this plan. In 1980, there was a military coup once again due to the internal turmoil in Turkey, and 1980 marked the beginning of a new era in Turkey's development policies.

3.1.6 1980 and Later, Opening Period

The new government that took over the country, under the presidency of Süleyman Demirel, started to work on a new economic program. IMF officials also expressed that they are worried about Turkey's situation in this period and stated that they will provide assistance in case a program is put forward. On January 24, 1980, the government announced to the public the new stabilization program, which has an important place in the economic history of Turkey and is referred to as the “January 24 Decisions”. These decisions brought about a radical change and changed Turkey's development policy in a different direction. According to this program, Turkey was moving from an "import substitution" economy to an outward-looking economy. In this program, it was aimed to increase exports and to create a plan considering not only domestic demand but also world markets while preparing industrial plans. The January 24 decisions briefly include the following items (Sahin, 2000):

- Controlling inflation,
- Devaluation of the Turkish lira,
- Minimizing government interventions in the economy,
- Liberalization of foreign trade,
- Liberalization of the foreign exchange market and removal of controls,
- Providing import and export freedom,
- Determination of prices according to free market conditions,
- Reducing real wages,
- Reducing public expenditures,
- Ensuring the balancing of the budget by making a new tax reform.

After this program, Demirel government signed a Stand-by agreement with the IMF for the first time on 18 June 1980 with the longest duration and the highest credit, and obtained the opportunity to use a loan of 1,250 million dollars for 3 years. According to this agreement, reducing public expenditures and promoting exports were the main items. In Turkey, on September 12, 1980, a military coup took place once again due to internal turmoil and a new era began. However, the new governments also fulfilled the requirements of this agreement with the IMF (Yucel, 2017).

The effect of the January 24 decisions between 1980-88 showed itself especially in the field of exports. However, the budget balance could not be balanced despite the increase in taxes, and the principal and interest payments of the budget increased a little more every year. The ratio of principal and interest payments to tax revenues, which was 65.1% in 1988, reached 104.4% in 1993. Although the January 24 decisions created stability and optimism in the economy in the first years, they could not prevent the reoccurrence of economic crises in the following years (Fırat, 2009).

3.2 Economic Development

Although the discussions on the concept of Economic Development intensified with the Second World War, it basically dates back to the industrial revolution. The reason for this is that the concept of development is handled in direct proportion to industrialization. The shaping of development as a goal is directly proportional to the rise of capitalism. The industrial revolution, which emerged for the first time in England in the 18th century, brought with it the birth of the concept of development. In the field of economics, scientists have produced many approaches to development and economic growth. However, especially the second world war has been very effective in bringing the concept of economic development to the fore. Because the countries that were destroyed during the war and the economies that saw the bottom point needed a new development plan. However, today the concept of economic development is often used for developing Latin American, Asian and African countries. The aim of the approaches on economic development is to get these countries out of poverty and reach the level of improved welfare in the long run. In the middle of the 20th century, while reducing the share of agriculture and increasing the share of industry in the economy was used as an indicator of economic development, many social issues were also included in the concept of economic development in the 21st century. The first of these is the human development index. Today, economic development has become a concept that cannot be expressed only with economic indicators, and the quality of life of people has become an indicator of development (Ozcan, 2011).

There are some indicators that economist scientists have used to measure the level of economic development. Among them, the most used is per capita income or GDP growth rate. Since these data are measurable, they provide very important information in the comparison of countries. However, economists approaching the concept of development from a different perspective argue that the concept of economic development is a much more complex and multidimensional concept and that different measures should be used as a development indicator. Among these indicators, there are many different indicators such as the rate of people living in the city, literacy rate, and income justice (Ozcan, 2011).

As a result, economists have utilized a variety of indicators in empirical research investigating the concept of economic development. Because the notion involves multidimensional indicators, there are certain limits in the research. As a result, studies can't cover every facet of development, thus they rely on indices established specifically for this purpose. Some of these are the Global Innovation Index and the Human Development Index.

In this section, natural resources, investment and capital accumulation, foreign trade, foreign direct investment, technology, infrastructure, financial development, economic growth, tax and income distribution factors that are thought to affect economic development will be discussed.

3.2.1 Natural Resources

The term "development" is usually used to refer to a concept that is based on measures of industrialization and economic progress. Development is defined as the process of transitioning from agriculture to industrialisation, from villages to towns to cities, and from rudimentary tools to mechanized. Until recently, the stages of the development notion have been dealt with in a fairly conventional manner during the industrial revolution. As a result, the forms of development according to the sorts of industries alter over time. Iron and iron-related industries come first, followed by coal, and then engineering-related industries, which are followed by chemical and electronics, respectively. However, in light of all of these advancements, natural resources appear to be the most important raw materials. Therefore, there are always natural resources on the basis of economic development (Ozsabuncuoglu, 1999). However, natural resources alone are not sufficient, and at the same time, the efficient use of these resources for the benefit of the whole society is the basic requirement for development. In order for countries to develop with natural resources, it is imperative that they determine their sectoral priorities and create a planned development strategy (Han, 1999). Today, it is a fact that the efficient use of natural resources contributes positively to all other elements of development. Employment, investment, industry, trade and energy sectors all have the potential to develop with the efficient use of natural resources (Basol et al., 2005).

In order to use natural resources efficiently, first of all, it is necessary to have information about where and how many natural resources are in the country. There are differences between developed countries and other countries in this regard. In general, while the developed countries have information about the natural resources in the country and do their research on the fields where the resources can be used, it is seen that the underdeveloped and developing countries do not have enough information about the domestic natural resources. When we look at the world, it is seen that the developed levels of many countries, which are very rich in natural resources, are quite behind. The reason for this is that these countries lack the capital, qualified manpower and economic organization that can provide development with these resources. For this reason, having natural resources is not enough for development. First of all, it is necessary to know the inventory of natural resources well, and then to have a sufficient level of science and technology and manpower to use these resources. Only in this way can natural resources be used as a means of development (Baol et al., 2005).

3.2.2 Investment and Capital Accumulation

The impact of capital accumulation on development appears as an undeniable reality from classical economists' views. Capital accumulation is one of the most significant aspects of capitalism's evolution. The capital developed through capital accumulation includes not just capital resources, but also labor and intellectual capital. The dilemma of expanding funds to achieve the productivity of labor put forth is a reality that is as old as humanity. Due to limited availability of natural resources, the most productive use of the workforce and other existing capital elements is necessitated. With the commencement of the first industrial revolution in the 18th century, the substitution of labor for capital became one of the most fundamental aspects of economic development. However, capital accumulation can be achieved not only by the availability of capital, but also by the effective distribution of this capital. To summarize, capital is the situation of ensuring the most effective use of available resources due to the limitedness of natural resources.

Capital can be tangible resources as well as intangible resources. Therefore, it can be said that capital is also multidimensional. These capitals can be mentioned in many different types of capital, such as human capital arising from human knowledge and experience, and knowledge capital obtained from research and development. Adam Smith, one of the leading classical economists, gave special importance to capital accumulation in his approach to economic development. Smith states that capital accumulation and distribution of labor are the most important indicators for economic development (Ozcan, 2011).

The important difficulty with capital accumulation is that a share of current income is invested in order to improve future profits. Capital accumulation can be defined as the collection of new technologies and machinery, as well as investments in human education. It will be feasible to make more money in the future by enhancing the efficiency of the task to be done. As a result, securing the accumulation of both material and moral capital serves as a means of ensuring progress through the creation of new resources and increased productivity.

Capital accumulation alone is not enough, it also needs a proper investment plan. If there is no good investment plan, the capital available will not be evaluated well and the capital will melt down. This applies to both tangible and intangible types of capital. The transfer of educated people, which we encounter in most underdeveloped countries, to developed countries can be given as an example. In addition, it is one of the frequently encountered examples that countries with young and working population cannot use this capital well enough, so this situation tends to a negative side.

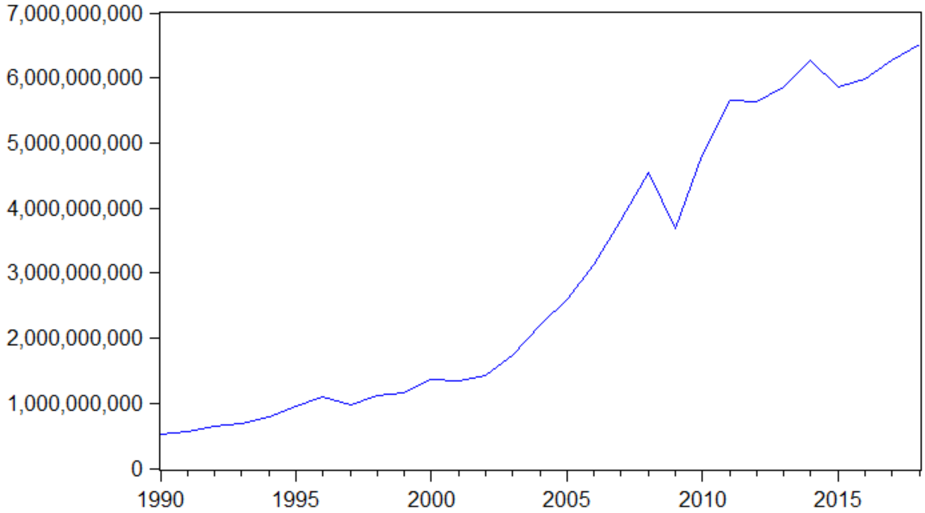
Countries plan how much GDP will be allocated to specific investments each year in their budgets. As a result, first and foremost, the money required for these initiatives must be determined. Capital must be increased before production can be increased. As a result, developing countries, conscious of the situation, prioritize investment in their budgets, but due to a lack of money, they typically rely on external debt to meet this need. Many studies have been published that look at the link between investments and economic development. These studies show that investments and capital accumulation have a beneficial link (Samaz & Yayla, 2018).

3.2.3 Foreign Trade

International trade, import and export data of countries are important building blocks of economic development. Especially in today's global competitive environment, it has become impossible to achieve development without foreign trade. In many studies and empirical analysis, researchers have revealed a positive relationship between foreign trade and economic development. The effects of foreign trade on development are expressed by Classical economists such as Smith and Mill. International trade can accommodate both goods, labor and technological transfers. Especially today, the concept, which is also expressed as the global value chain, reveals the importance of added value and value creation in foreign trade for countries. Countries are in a struggle to add the highest value to the products in order to achieve maximum efficiency with a good foreign trade planning in the global competitive environment.

Since the beginning of the 21st century, technological developments and the rapid globalization of the world have caused trade to move away from the traditional style and to find different channels for itself. The development of communication technologies and the ease of transportation provided different opportunities for companies to increase their profit rates. In particular, companies in the production sector have opened up abroad in order to reach cheaper costs and workforce, so there have been changes in traditional import and export definitions. It has also become impossible to write an exported product as an export item to a single country, as products enter and exit different countries from the design stage to the moment they are marketed. This new model, which includes a different approach from the traditional trade mechanism, is defined as Global Value Chains (GVC) in the literature. GVC is generally expressed as the contribution of different countries to a product or service from the design stage to the time it is marketed as a final product. After 2000, companies mostly shaped their production around GVC and sought to procure intermediate products and workforce from different geographies in order to reduce cost factors (Feenstra and Gordon 1997; Grossman and Rossi-Hansberg 2008). With the GVC, the products started to enter and leave different countries one or more times until they are finalized. The Global Value Chain in Foreign Trade has also provided many advantages to developing countries. Among the developing countries, countries such as China, India, and South Korea have made great strides in the last 20 years with the opportunities such as cheap costs and cheap labor they provide to the developed countries in the GVC, and by providing development opportunities, they have risen to the forefront in the trade of value-added products throughout the world.

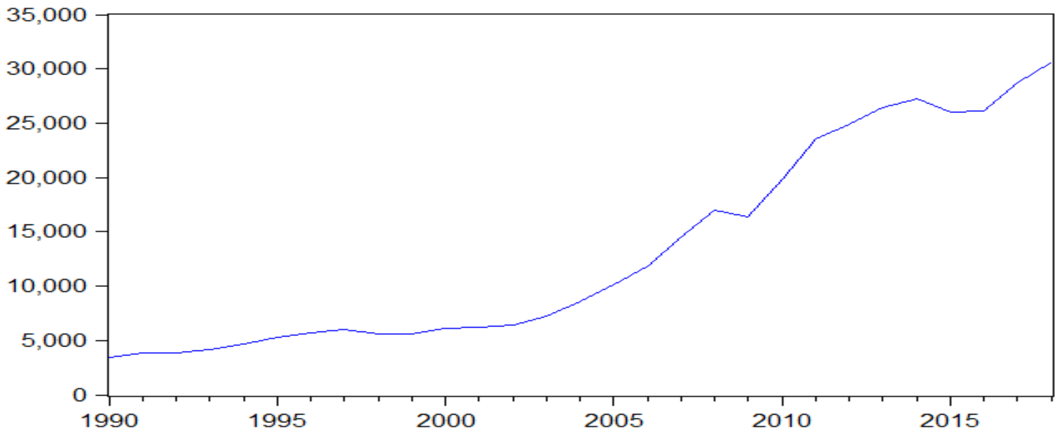
Figure 1. Global Value Chain Participation of Developing Countries (Foreign and Domestic Value Added Total US$)



Source: UNCTAD-Eora Galobal Value Chain Database

As seen in Figure 1, developing countries have reaped significant benefits from the Global Value Chain environment, particularly by taking advantage of low labor costs. Figure 2 also shows national income charts for the same nations.

Figure 2. Developing Countries' National Income Graph (2000 – 2018)



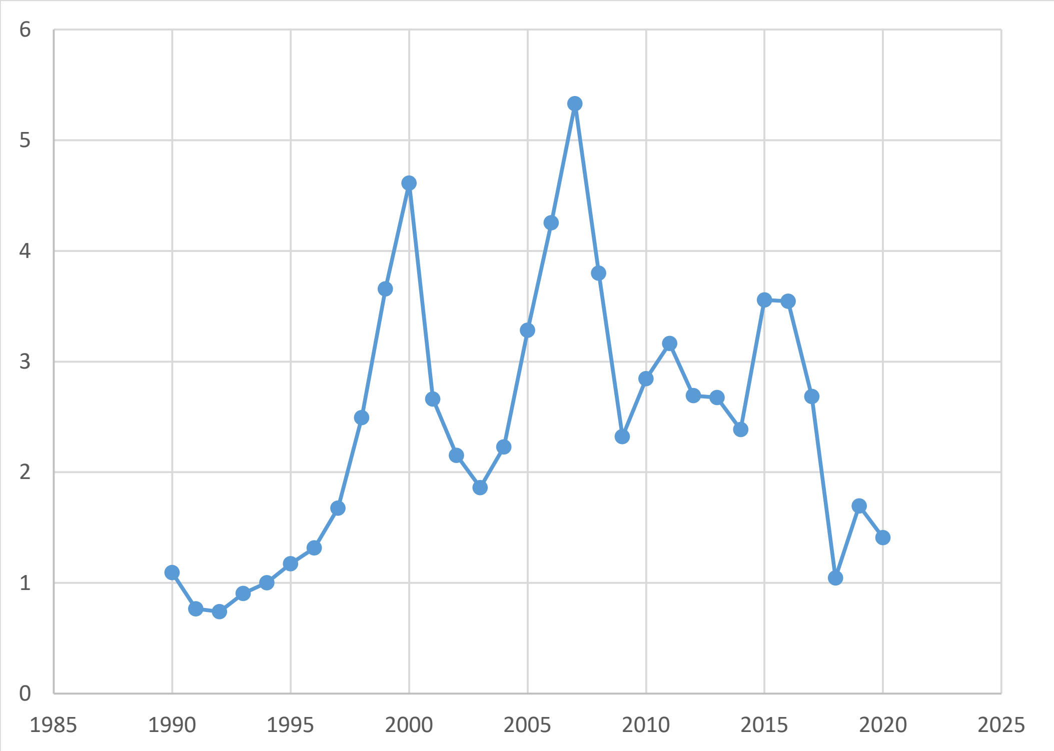
Source: World Bank Data Bank, 2022

As seen in Figures 1 and 2, foreign commerce has a significant impact on national income. Both graphs exhibit a similar pattern to each other, as can be seen.

3.2.4 Foreign Direct Investments

It is seen that foreign capital and especially foreign direct investments are in an increase throughout the world. In general, it is thought that foreign direct investments have a positive effect on the development of countries, and for this reason, especially developing countries apply incentive programs to attract investors. Foreign direct investments have many aspects that directly affect development such as employment, infrastructure and money inflows. While foreign investors receive high returns on their investments due to various advantages, the increased labor force and production of goods in the invested country due to foreign investments provide a double advantage. When the literature is examined, it is seen that researchers have determined a positive relationship between foreign direct investments and economic development in econometric analyzes made. The ratio of foreign direct investments in GDP all over the world is shown in Figure 3.

Figure 3. The World Foreign Direct Investment, Net Inflows(%GDP)



Source: World Bank Data Bank

As can be seen in Figure 3, there has been a great increase in the ratio of foreign direct investments to the country's GDP since the 1990s.

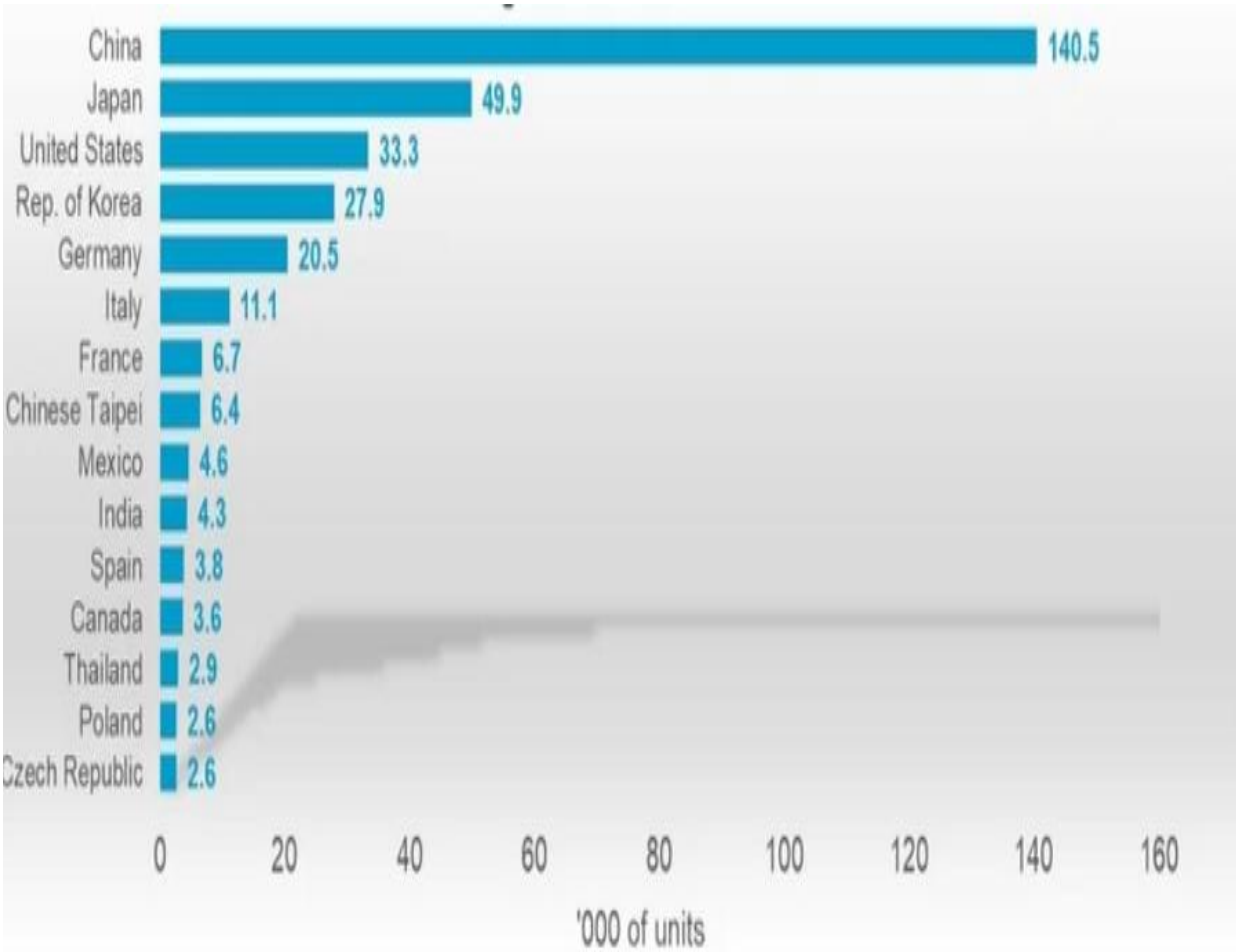
3.2.5 Technology

Keeping up with the technological developments and developing the country's technology provide many different advantages for the development of the country. The most important of these are the reduction of costs and the increase in efficiency. Therefore, one of the important elements of commercial and industrial competition between countries is technological development. Technology offers important opportunities for developing countries in terms of development. Because technology also has an advantage called "The Advantage of Latecomers". This advantage means providing a faster transition to technology without paying the high costs and costs paid by the producing countries (Savas, 1999).

Technology has different aspects in terms of development. One of these is the use of technology for production purposes within the industry and thus increasing efficiency. In addition, technology production is also very important in terms of development. Today, it is seen that especially the countries that export high technology make great profits in the competitive environment. The basic indicators of technological development are sub-parameters such as R&D investments, innovation investments and supporting entrepreneurship.

One of the biggest examples of technology development is the production and use of robot technologies, which provide great advantages in terms of efficiency in industrialization. In this respect, the situation of the countries producing this technology can shed light on development. In Figure 4, the 2020 report published by the International Federation of Robotics contains the robot technology production information of the countries.

Figure 4. Annual installations of industrial robots Top 15 countries



Source: IFR 2020 Report

As seen in Figure 3, among the countries that produce robot technology, there are countries that are at the forefront in terms of development. This situation is an indicator for us in terms of the relationship between technology and development.

3.2.6 Financial Development

Financial development is defined as the diversification of financial resources and financial instruments in a country. In summary, the state of development of financial markets is considered as financial development. Today, one of the criteria of development is the deregulation of the countries' finance and financial depth. Financial depth is a situation related to the extent to which the funds in the country can be transferred to the real markets. Studies have shown that economic development is directly proportional to the development of financial markets (Sasmaz & Yayla, 2018). Good financial management means establishing a good intermediary where capital owners and investors can be brought together. In other words, the main objective of financial development is to prevent the negativities that may cause the fund in the country to remain idle and to ensure that the fund in the hands of savers is valued to the advantage of both investors and savers.

Hermes and Lensink (2008) listed the contributions of financial development to economic growth as follows:

• In an environment where financial markets are diversified, it causes an increase in the phase of competition, thus causing savings to flow to financial institutions and hence to investors.

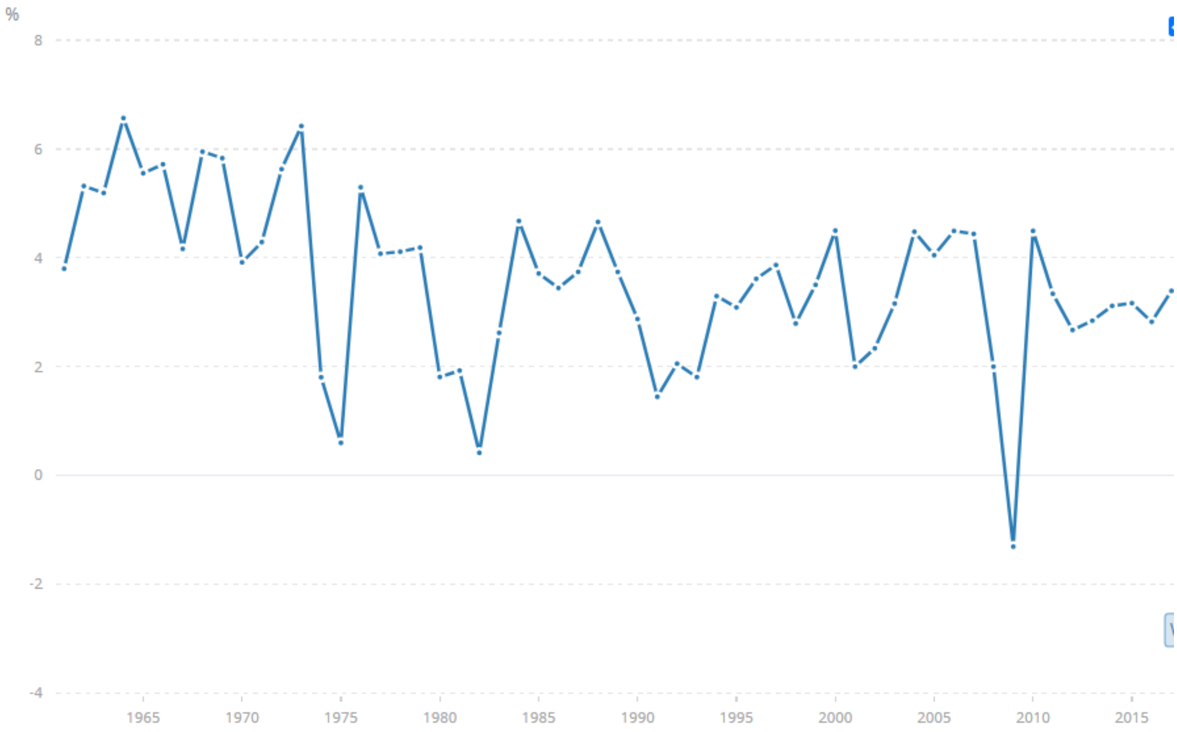
• The more efficiency and diversity there is in the financial markets, the greater the risk management processes and the inclusion of new financial instruments in the system, resulting in more profits for savers.

• Financial development also causes a decrease in capital costs, thus paving the way for an increase in investments.

3.2.7 Economic Growth

The concept of economic growth is often confused with economic development. However, although economic growth is one of the important indicators of economic development, it is not the same as economic development. While economic growth is quantitatively the growth of GDP and national income, economic development is a much broader concept. The definition of economic growth is generally expressed in the literature as "the increase in the GNP (monetary value found as a result of adding all the goods and services produced in the country to the production of the citizens outside the country)" in the literature. However, if this growth does not show a fair distribution among the citizens, as is frequently encountered in the economies of the countries, it does not provide benefits in terms of development. In order for economic growth to have a positive meaning in terms of development, the distribution of GDP between sectors and the rate at which citizens benefit from it are very important. For this, different variables such as economic growth, human development index and income distribution are also used in economic development studies. The Human Development index is an index that examines different variables such as education, health and income distribution besides economic growth and is published annually by the United Nations and is an important indicator for economic development (Sasmaz & Yayla, 2018).The percentage increase in GDP worldwide is shown in Figure 5.

Figure 5. The World Annual GDP Growth (%)



Source: World Bank Databank

Figure 6 shows that, since 1960, global growth rates have been declining. Table 15 shows the growth rates of the European Union, OECD countries, and the rest of the globe from 1990 to 2015.

Table 15. Euro Area, OECD Members and WORL GDP Growth Rate(1990-2015)

Year	Euro area	OECD members	World
1990	3,60	3,04	2,88
1991	2,68	1,31	1,45
1992	1,42	2,17	2,06
1993	-0,66	1,33	1,81
1994	2,46	3,17	3,30
1995	2,42	2,65	3,09
1996	1,69	3,15	3,61
1997	2,71	3,58	3,87
1998	3,04	2,96	2,79
1999	2,96	3,37	3,50
2000	3,86	4,06	4,50
2001	2,20	1,39	2,00
2002	0,94	1,59	2,34
2003	0,68	2,11	3,16

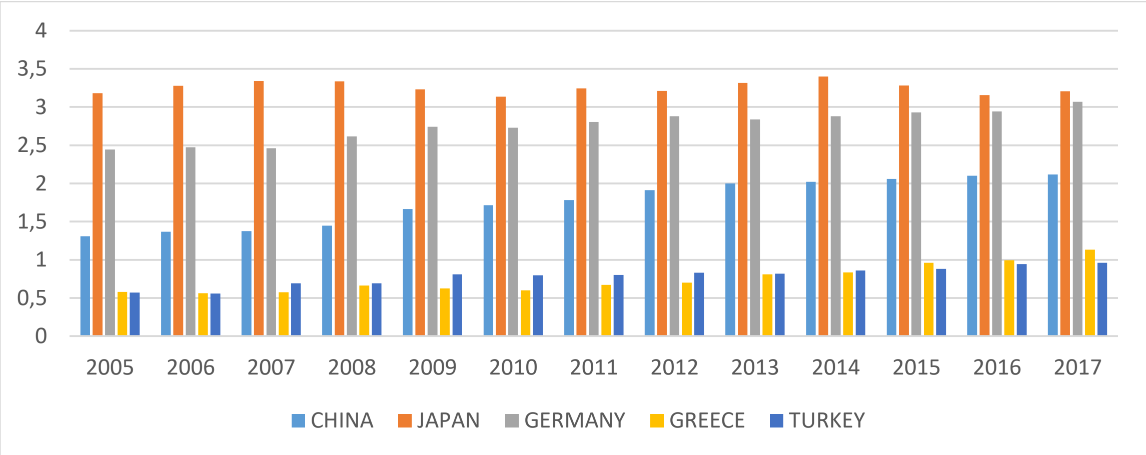
2004	2,29	3,28	4,48
2005	1,68	2,88	4,05
2006	3,23	3,10	4,50
2007	3,00	2,68	4,44
2008	0,42	0,29	2,00
2009	-4,52	-3,33	-1,31
2010	2,18	2,92	4,50
2011	1,72	1,89	3,34
2012	-0,84	1,37	2,67
2013	-0,22	1,53	2,84
2014	1,40	2,17	3,12
2015	2,06	2,59	3,17

Source: World Bank Data Bank

3.2.8 R&D Expenditure

An important pillar of technological development is R&D investments. It is seen that the R&D investments of the countries that are advanced in terms of technology are quite high compared to other countries. Therefore, R&D investments are also an important element in terms of economic development. R&D investments are of great importance for companies to advance in technology and provide competitive advantage. R&D leads to technological development, and technological development leads to efficiency. In this respect, together with the efficiency achieved, an increase in income can be achieved and an advantage can be achieved in economic growth and therefore in development. In order to make a comparison, the share of R&D investments of five countries in GDP is given in Figure 6.

Figure 6. R&D Expenditures of Selected Countries(%GDP)



Source: World Bank Databank.

As seen in Figure 6, countries such as China, Japan and Germany, which are at the forefront in terms of economic development and technological development, allocate much more shares to R&D investments in GDP compared to Turkey and Greece.

3.2.9 Income Distribution

Injustice in income distribution, which is one of the issues that countries focus on today, can cause social unrest and economic collapse. Income distribution is the distribution of the income generated within the country at a certain time among individuals, groups, in other words, among the factors of production. The concept of income distribution expresses the extent to which the income generated in the economy at a certain time is distributed by the decision units in the economy (Ulusoy et al., 2015: 46-47).

The distribution of income among individuals is as important as production as a result of human needs. Fair distribution of income is among the most important duties of the state. Income distribution, which is one of the main objectives of economic policy, is tried to be realized in all countries with different levels of development and different economic systems (Güçlü & Bilen, 1995: 160).

Barro and Sala-i Martin (1997), empirical theorists, highlighted how public investment has a significant impact on lowering income disparity. When we consider the wealth effects of government expenditure on education, health, and social security in this context, it is easy to conclude that the income distribution has improved.

Another approach to the relationship between income distribution and development is to increase demand in the redistribution of income. According to this theory, income distribution inequality lowers per capita income and so raises redistribution demand. Increased demand for redistribute income would almost certainly lead to social and political unrest, and investments would suffer as property rights would be jeopardized (Alesina ve Perotti, 1996). Furthermore, income disparity would induce economic units to intensify rent-seeking activities, which would have a significant negative impact on capital accumulation and development.

Regarding income distribution, the informal economy has an impact on development. For example, a large informal sector would result in lower tax collections and less social security spending. Reducing these types of expenditures would help to increase income disparity. Furthermore, lowering informal economy tax revenues would reduce public spending, limiting household income. This would also be a development issue.

3.2.10 Tax

In the process of achieving economic development, fiscal policy helps with public investment expenditures and current expenditures, while it can also affect the need for savings in the economy with the tax policy it will implement. For this purpose, the use of taxes is called incentive taxation or tax policy in financing economic development, while tax incentive policies are applied in the formation of savings and investments, especially in developing countries. With the incentive tax policies, it is possible to direct the funds in the market to private investments (Eker, 2001: 331). In other words, taxes can be used to provide income to the state as well as to realize economic stability, and in addition to these, it is desired to benefit from taxes in order to accelerate development today. (Nemli, 1979: 143).

4 EVALUATION OF ECONOMIC DEVELOPMENT IN TURKEY

In this section, the economic development of Turkey between the years 2001-2020 will be examined. The review will be examined on the basis of GDP growth rate, human development index, R&D Expenditures, Global Innovation Index, technology patents, which are considered as indicators of economic development.

4.1 GDP Growth Rate of Turkey

GDP, which is a measure of economic growth, is also one of the most important measures for tracking a country's progress. GDP and its growth rate, on the other hand, are fundamental indicators, and the distribution of GDP is critical in terms of development. Subheadings such as which industry receives the greatest proportion of GDP, how much of GDP is spent on investments, and how much of GDP is spent on R&D provide an opportunity to assess development. For the first time, Table 16 shows Turkey's GDP rates and GDP growth rates from 2001 through 2020.

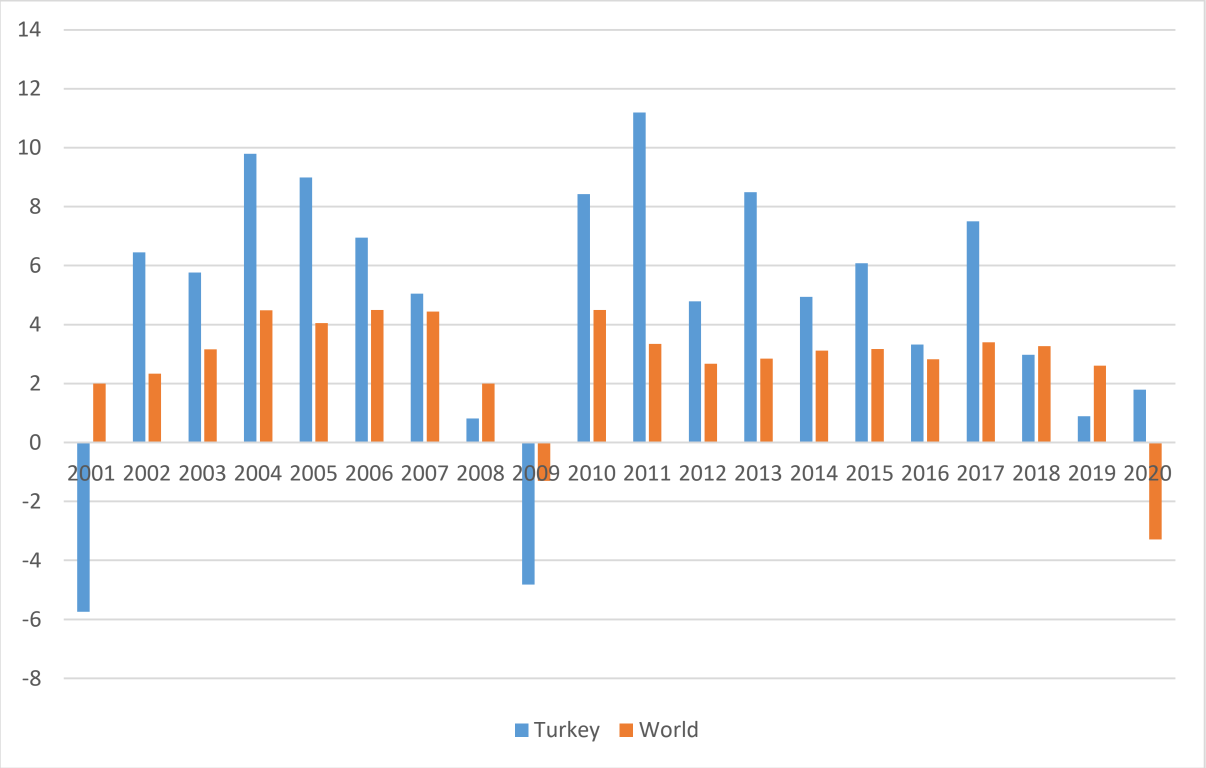
Table 16. 2001-2020 Turkey GDP and GDP Growth Rate Statistics

Year	GDP(US $)	GDP Growth Rate
2001	201.751.148.417	-5,75
2002	240.253.216.295	6,45
2003	314.592.428.076	5,76
2004	408.876.042.652	9,8
2005	506.308.311.477	8,99
2006	557.057.829.051	6,95
2007	681.337.335.022	5,04
2008	770.462.156.204	0,82
2009	649.272.568.774	-4,82
2010	776.992.599.947	8,43
2011	838.762.755.164	11,2
2012	880.556.375.780	4,79
2013	957.783.020.853	8,49
2014	938.952.628.604	4,94
2015	864.316.670.331	6,08
2016	869.692.960.366	3,32
2017	858.996.263.096	7,50
2018	778.471.901.665	2,98
2019	761.004.425.605	0,89
2020	719.954.821.683	1,79

Source: World Bank Databank

Table 16 shows that the GDP grew steadily until 2014, but then began to fall. The growth rates do not appear to be trending and instead follow a somewhat erratic path. Negative growth was recorded in 2001 and 2009 throughout the 2001-2020 period. The 2001 crisis and the worldwide economic crisis of 2008 are seen to be to blame for this negative growth. The pandemic-induced worldwide economic instability resulted in growth rates of 0.89 and 1.79 in 2019 and 2020, respectively. However, it is observed that there was a 2.98% growth in Turkey in 2018 as well, which resulted from the political turmoil in Turkey and the rapid rise in the dollar exchange rate. In terms of Turkey's GDP growth rates, the situation with the world's general growth rate will be useful in showing us the situation of Turkey. For this reason, Figure 7 shows Turkey's growth rates compared to the world's general GDP growth rates.

Figure 7. Comparison of Turkey's GDP growth rates and the World's GDP growth rates (2001-2020)



Source: World Bank Databank

When Figure 7 is examined, it is seen that Turkey has a growth rate above the world average between the years 2001-2020, except for the years 2001, 2009, 2018 and 2019. Especially in 2004, 2005, 2011, 2013 and 2017, a growth is observed that is well above the world average.

It was mentioned above that the GDP ratio is a key indicator. For this reason, it is useful to look at the sectoral distribution of GDP and the foreign trade balance of the country at the same time in order to examine the GDP. First, Table 17 shows the shares of Turkey's GDP between the sectors between 2001 and 2020. In order to compare, European Union and World GDP distribution will be added to the table, and a comparison of Turkey will be made with both the European Union and the world in general.

Table 17. 2001-2020 Sectoral Distribution of Turkey, EU and World GDP

	TURKEY			EUROPEAN UNION			WORLD		
	Industry	**Manuf.**	**Agri-culture**	**Agri culture**	**Manuf.**	**Industry**	**Agri culture**	**Manuf.**	**Industry**
2001	25,5	17,7	8,8	2,2	17,2	25,1	3,4	17,2	26,8
2002	24,6	16,9	10,2	2,1	16,7	24,7	3,3	16,7	26,3
2003	24,8	17,1	9,8	2,0	16,3	24,3	3,3	16,6	26,3
2004	25,1	16,9	9,3	2,0	16,1	24,3	3,4	16,5	26,7
2005	25,2	16,9	9,2	1,8	15,8	24,2	3,2	16,3	27,2
2006	26,0	17,1	8,1	1,7	15,8	24,4	3,2	16,2	27,7
2007	26,4	16,8	7,5	1,7	15,9	24,4	3,4	16,2	27,7
2008	26,1	16,3	7,4	1,7	15,3	24,1	3,6	16,0	28,1
2009	24,0	15,2	8,1	1,5	13,9	22,7	3,7	15,4	26,6
2010	24,5	15,1	9,0	1,6	14,5	22,9	3,9	15,9	27,5
2011	26,8	16,4	8,2	1,7	14,8	23,0	4,0	16,0	28,1
2012	26,6	15,8	7,7	1,7	14,6	22,8	4,0	16,0	28,0
2013	27,7	16,3	6,7	1,7	14,5	22,4	4,1	15,8	27,7
2014	28,1	16,8	6,6	1,7	14,7	22,4	4,1	15,9	27,5
2015	27,8	16,7	6,9	1,6	15,3	22,8	4,2	16,4	26,8
2016	28,1	16,6	6,1	1,6	15,4	22,8	4,1	16,2	26,2
2017	29,1	17,6	6,0	1,7	15,3	22,7	4,1	16,2	26,7
2018	29,4	19,0	5,8	1,6	15,2	22,7	3,9	16,3	27,1
2019	27,2	18,3	6,4	1,6	14,9	22,6	4,0	15,9	26,6
2020	28,0	19,1	6,7	1,7	14,6	22,5	4,3	15,9	26,0

Source: World Bank Databank

Table 17 shows the sector's contribution to the GDP of Turkey, the world and the European Union as a percentage. When the table is analyzed, it is seen that Turkey's industrial and industrial contributions are somewhat higher than both the EU and the World in general, but its agricultural contribution is quite high compared to the averages of the others. In addition to this, it is seen that the share of the industrial sector of Turkey increased by approximately 2.5% from 2001 to 2020, the share of the manufacturing sector increased by 1.5% and the share of the agricultural sector decreased by approximately 2%. It is observed that industrialization was achieved at a rate of 2% during these dates, but a very slow progress was achieved.

4.2 Foreign Trade of Turkey

The balance sheets that arise from the trade relationship of a country with other countries and provide the balance between the domestic and foreign markets are called the foreign trade balance. While a country provides foreign exchange income due to the goods, services and capital it sells to other countries, it also has to pay for what it buys. If a balance is not established between these two, there is a need for additional capital and this need is usually met through external debt. However, if economic planning and programs are not created to establish the foreign trade balance, countries may face economic crises (Seyidoğlu, 1999). Turkey's foreign trade statistics between 2001 and 2020 are shown in Table 18.

Table 18 . 2001-2020 Foreign Trade Statistics of Turkey

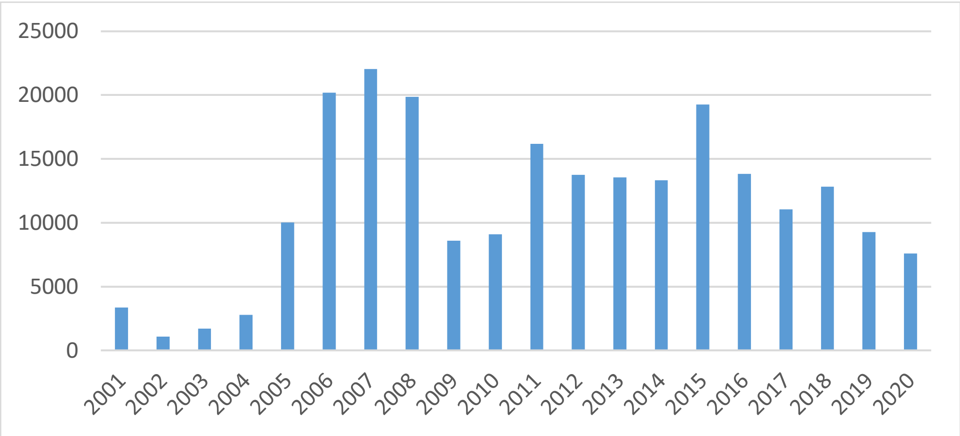
Year	Export		Import		Foreign Trade balance	Foreign Trade Volume	The ratio of exports to imports
	Value	Change	Value	Change	Value	Value	Change
2001	31.334.216	12,8	41.399.083	-24,0	-	72.733.299	75,7
2002	36.059.089	15,1	51.553.797	24,5	-	87.612.886	69,9
2005	73.476.408	16,3	116.774.151	19,7	-	190.250.559	62,9
2006	85.534.676	16,4	139.576.174	19,5	-	225.110.850	61,3
2008	132.027.196	23,1	201.963.574	18,8	-	333.990.770	65,4
2012	152.461.737	13,0	236.545.141	-1,8	-	389.006.877	64,5
2013	151.802.637	-0,4	251.661.250	6,4	-	403.463.887	60,3
2018	167.923.862	7,0	223.046.879	-4,6	-	390.970.741	75,3
2019	170.531.000	2,2	202.705.000	-9,1	-	373.236.000	84,6
2020	169.500.000	-0,9	219.000.000	9	-	388.500.000	77,3

Source: Turkey Statistic Institution

Every year, imports take up more space in Turkey's foreign trade than exports, as seen in Table 18. As a result, funding is required each year to close the deficit. The foreign trade imbalance, on the other hand, appears to be growing a little more each year. It was noted in the section on Turkey's economic history that Turkey has periodically encountered economic crises due to a foreign trade deficit since 1950. This issue is still present, as shown in Table 18. The main causes of this deficit are Turkey's agricultural exports, which do not contain high technology, and its imports, which include both energy reliance and high technology imports.

Foreign direct investments, which is one of the growth-influencing factors and one of the needs specially to close the current account deficit of developing countries. In this respect, it is very important to include this indicator in the analysis while observing the growth of the country's economy. Foreign direct investments entering Turkey between 2001 and 2020 are shown in Figure 8.

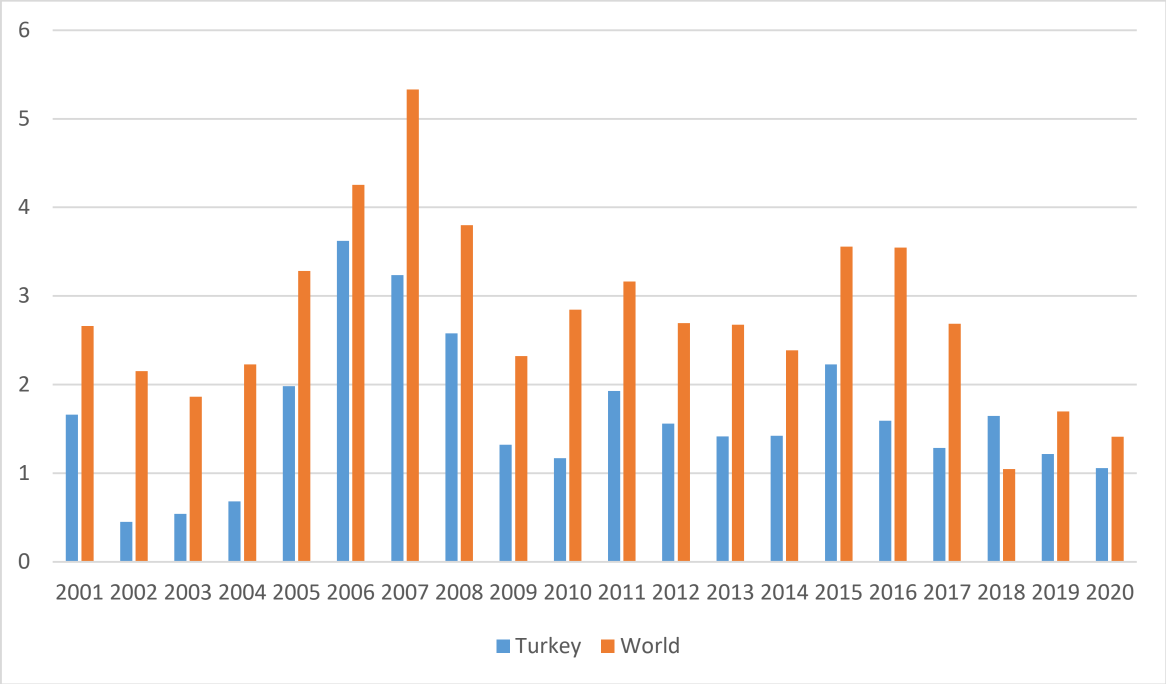
Figure 8. 2001-2020 Turkey Foreign Direct Investment Net Inflows (Million Dollars)



Source: World Bank Databank

From 2004 to 2007, the rate of foreign direct investments into Turkey increased about 20-fold, as seen in Figure 7. Although there was a drop, which was later attributed to the 2008 global financial crisis, it is still higher than previous years. The difference between Turkey's and the world's foreign direct investment is shown below in terms of looking at the situation of Turkey in comparison to the world between the years 2001-2020.

Figure 9. 2001-2020 Comparison Between Turkey and Turkey in Foreign Direct Investment Net Inflows (Million Dollars)



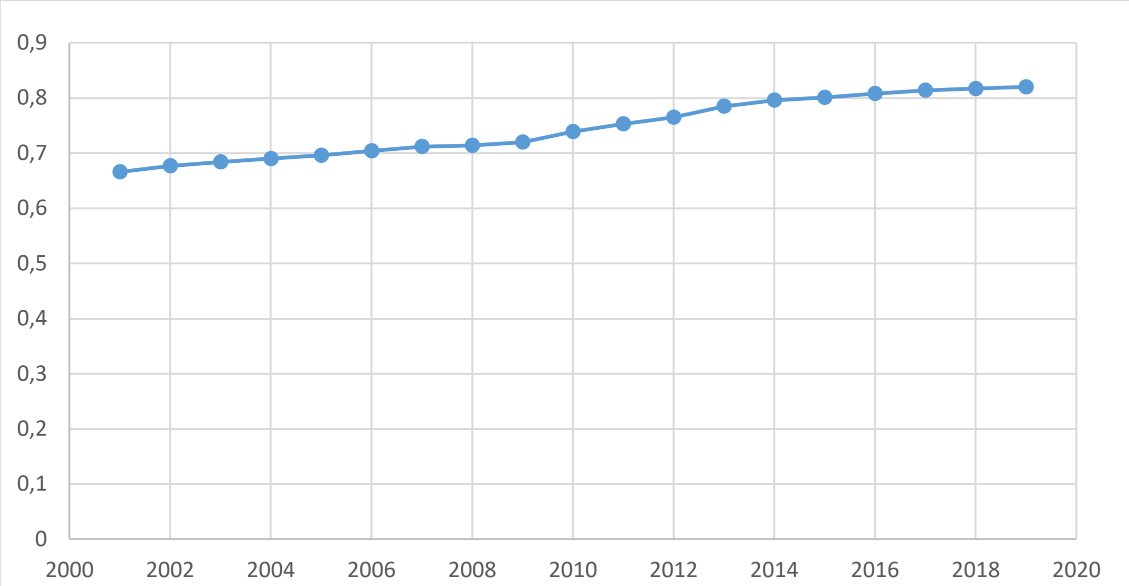
Source: World Bank Databank

When the figure above is examined, it is seen that Turkey lags behind the world in terms of foreign direct investment between 2001 and 2020.

4.1 Human Development Index

The concept of Human Development is a concept that has been used frequently since the 1990s. This concept is an indicator of today's human-based economy understanding, which states that economic development cannot be evaluated only with material criteria. With this concept, there was a need to create a new index used to measure the development levels of countries. In this index, which has been published regularly by the United Nations since 1990, there are levels such as long and healthy life, schooling rate, education and welfare level. The Figure showing the situation of Turkey in the Human Development Index is presented below.

Figure 10. 2001-2019 Human Development Index Scores of Turkey



Source: United Nations Development Program, Human Development Reports

In 2019, Turkey is ranked 54th out of 189 nations in the Human Development Index. Since 2001, there has been an increase in the index score. Inequalities between men and women, particularly in subheadings like as education, labor force involvement, and active participation in politics, keep Turkey's index score low. Despite the fact that the index score rises year after year, it is apparent that Turkey is not at a sufficient level of human development.

The main goal of economic development is to increase the level of general happiness of the people living in the country by increasing their welfare level. For this reason, it is thought that besides the human development index and economic indicators, people's happiness levels are also an indicator of the level of economic development. For this reason, it is considered that it will be useful to examine the happiness levels of people and to include them in the research in examining the development levels of countries. For this reason, the results obtained from the happiness survey of Turkish citizens, which are regularly conducted every year by the Turkish Statistical Institute, are shown in Table 19, as it gives an idea about the development level of Turkey.

Table 19 . Change of The Happiness Level of Turkey citizens between 2003-2021

YEAR	VERY HAPPY	HAPPY	AVERAGE	UNHAPPY	VERY UNHAPPY
2003	12,01	47,57	33,17	5,6	1,65
2004	9,35	48,73	29,77	9,54	2,61
2005	9,14	48,49	29,52	9,92	2,94
2006	8,78	49,05	30,29	9,05	2,84
2007	8,71	51,48	28,75	8,84	2,22
2008	8,23	47,52	30,34	11,43	2,47
2009	7,67	46,62	31,11	11,5	3,1
2010	9,16	51,99	28,09	8,75	2
2011	8,53	53,57	28,02	7,99	1,89
2012	8,5	52,45	28,89	8,32	1,84
2013	9,57	49,45	30,23	8,17	2,58
2014	8,07	48,19	32,01	8,9	2,83
2015	7,95	48,65	32,02	8,83	2,56
2016	7,56	53,77	28,26	8,84	1,57
2017	7,23	50,81	30,91	8,94	2,11
2018	6,9	46,47	34,53	9,73	2,38
2019	6,61	45,74	34,58	9,93	3,13
2020	8,77	39,44	37,29	10,02	4,48
2021	5,25	44,08	34,04	13,13	3,49

Source: Turkey Statistics Institution

Table 19 shows that Turkish citizens have experienced a significant decrease in their happiness levels since 2003.

In terms of economic development, it is ideal that economic expansion benefits all members of society equitably. In other words, one of the most significant conditions for the idea of development is the ability of all members of society to profit from the growth of the country's economy and a boost in the society's overall welfare level. One of the greatest handicaps for emerging countries is income inequality and the increasing of the gap between the rich and the poor. As a result, in this study, which looks at Turkey's economic progress, it will be important to look at the country's poverty statistics and income distribution.

Table 20 . Change of The Number of Poor People of Turkey citizens between 2006-2020

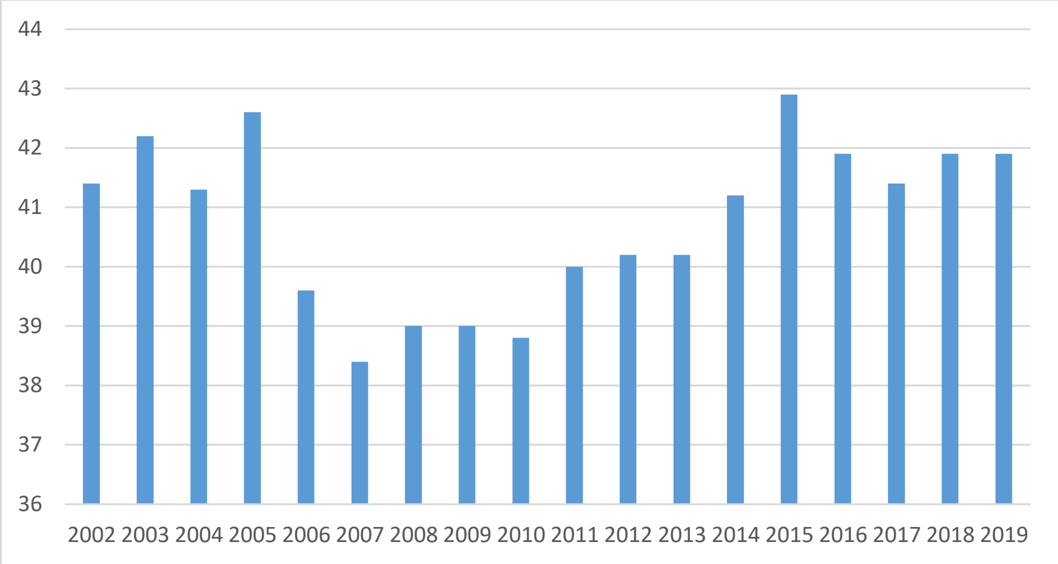
Year	Number of Poor People(Thousand)	Rate(%)
2006	8665,02	12,81
2007	6798,51	9,93
2008	7020,77	10,14
2009	7484,86	10,61
2010	7355,02	10,31
2011	7288,18	10,07
2012	7344,14	9,98
2013	6788,45	9,12
2014	6572,24	8,68
2015	6652	8,7
2016	6482	8,4
2017	5865	7,4
2018	6322	7,9
2019	6710	8,3
2020	7278,09	8,89

Source: Turkey Statistics Institution

In Table 20, the number of poor people among Turkish citizens since 2006 and the ratio of this number to the total population are given. This figure was determined by the Turkey Statistics Institution by calculating the poverty line as an income level below 40% of the median income level of the society. As can be seen from the table, although there is a decrease in the number of poor people in the society over a 14-year period, it is seen that this decrease is not at a significant level and the number of poor is quite high. Considering the fact that the public has to help poor people in accordance with the social state principle, it is a reality that this situation also brings an additional cost to the public.

The GINI index, which is used as a measure of income inequality, is also an important criterion as an economic development index. In the GINI index, as the number approaches 100, income inequality increases, and as it approaches 0, income inequality decreases. Developed by the Italian statistician Corrado Gini (1912), the Gini Coefficient is widely used in the economics literature to determine income distribution inequality and to compare various income distributions due to its simplicity and showing the distribution with a single coefficient (Yazgan, 2018). Examining Turkey's income distribution is thought to be important in terms of understanding the development situation. In Figure 11, the Gini index change of Turkey between 2002-2020 is shown.

Figure 11. 2002-2019 Turkey GINI Index Scores (0-100)



Source: World Bank Databank

While observed from Figure 11, it can be noticed that Turkey is in an average position in terms of income inequality, and that, although income inequality improved between 2006 and 2010, it has expanded since 2011.

4.2 R&D Expenditures, Patents and Global Innovation Index of Turkey

Innovation, which is one of the important building blocks of the country's development, is a very important concept for countries to keep up with technology, to gain economic advantage by providing efficiency in production, and thus to provide economic development. The most basic indicators of innovation are R&D investments and taptent numbers. In addition, the Global Innovation Index, which includes all indicators related to innovation, is an important index published annually by WIPO and shows the innovation status of countries. In this section, these parameters will be included in order to show the economic development status of Turkey. First of all, in Table 20, the Table showing the R&D expenditures of public, private sector and higher education institutions in Turkey is presented below.

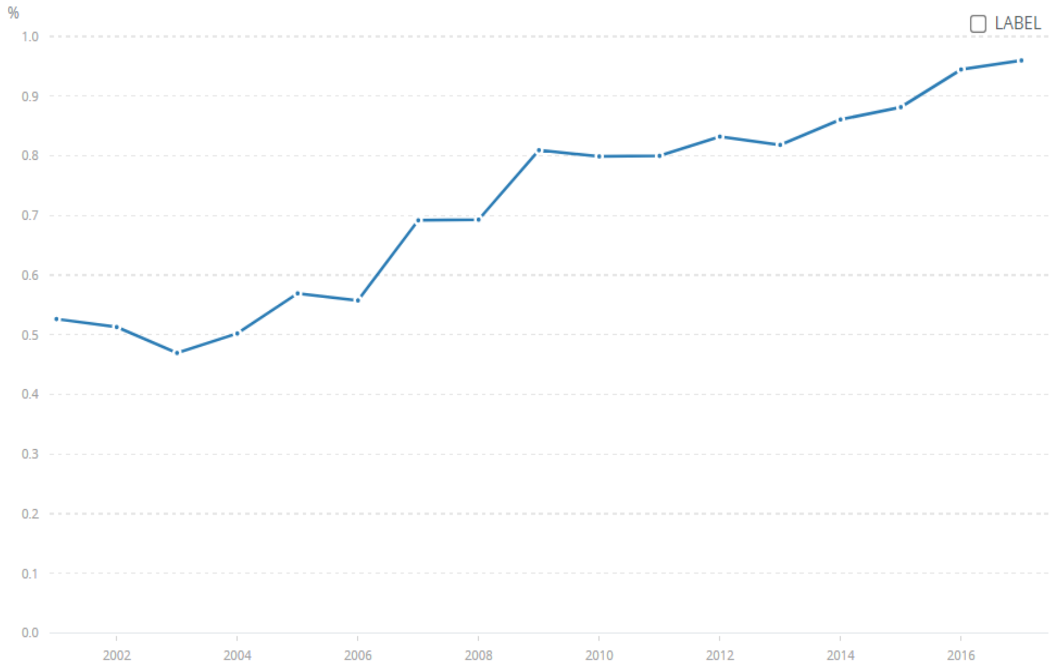
Table 21 . Turkey R&D Expenditures

		2015	2016	2017	2018	2019	2020
GDP(Gross Domestic Product) (%)		0,88	0,94	0,95	1,03	1,06	1,09
Total R&D Expenditure (TL-TRY)		20.615.247.954	24.641.251.935	29.855 477 805	38.533 672 884	45.953 691 096	54 956 827 217
Financial and Non-Financial Corporations(TL-TRY)		10 308 737 689	13 359 011 600	16 980 836 067	23 289 367 294	29 500 710 718	35 623 334 563
General Government(TL-TRY)		2 130 766 481	2 338 372 843	2 858 435 052	3 559 213 870	3 044 485 454	3 716 726 729
Higher Education Sector(TL-TRY)		8 175 743 784	8 943 867 493	10 016 206 686	11 685 091 720	13 408 494 924	15 616 765 925
R&D personnel (Headcount)		224 284	242 213	266 478	289 791	305 811	321 392
	Financial and non-financial corporations	77 551	83 873	101 404	118 867	129 798	144 674
	General Government (TL-TRY)	14 217	13 372	12 828	12 884	10 472	11 044
	Higher Education Sector(TL-TRY)	132 516	144 968	152 246	158 040	165 541	165 674
R&D personnel (TL-TRY)		122 288	136 953	153 552	172 119	182 847	199 371
	Financial and Non-Financial Corporations(TL-TRY)	66 667	72 579	87 918	104 376	114 931	130 279
	General government (TL-TRY)	12 328	11 799	11 345	11 379	8 886	9 439
	Higher education sector(TL-TRY)	43 293	52 576	54 289	56 364	59 031	59 653

Source: Turkey Statistical Institute

As seen in Table 21, it is seen that there has been an increase in Turkey's R&D expenditures in the last 5 years. However, when compared to GDP, it is seen that the share of R&D in GDP is not very high. The Figure showing the change in the share of R&D investments in GDP is also shown below.

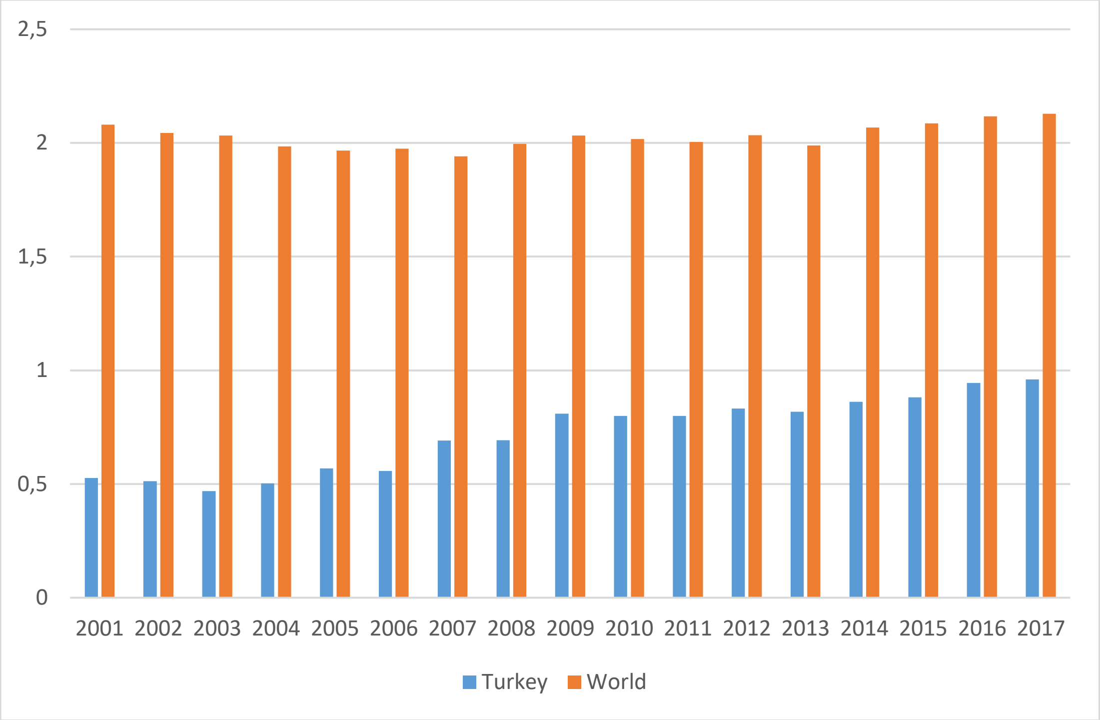
Figure 12. R&D Expenditures in GDP (%)



Source: World Bank Databank

As seen in Figure 12, although the share of Turkey's R&D investments in GDP has increased regularly, it has not exceeded 1% yet. In terms of comparison, it is thought that it would be beneficial to look at the R&D expenditures as a percentage of the total GDP in the world and the R&D expenditures in Turkey's GDP. For this reason, the graph comparing both data is presented below.

Figure 13. The Comparison Turkey and World R&D Expenditures in GDP (%)

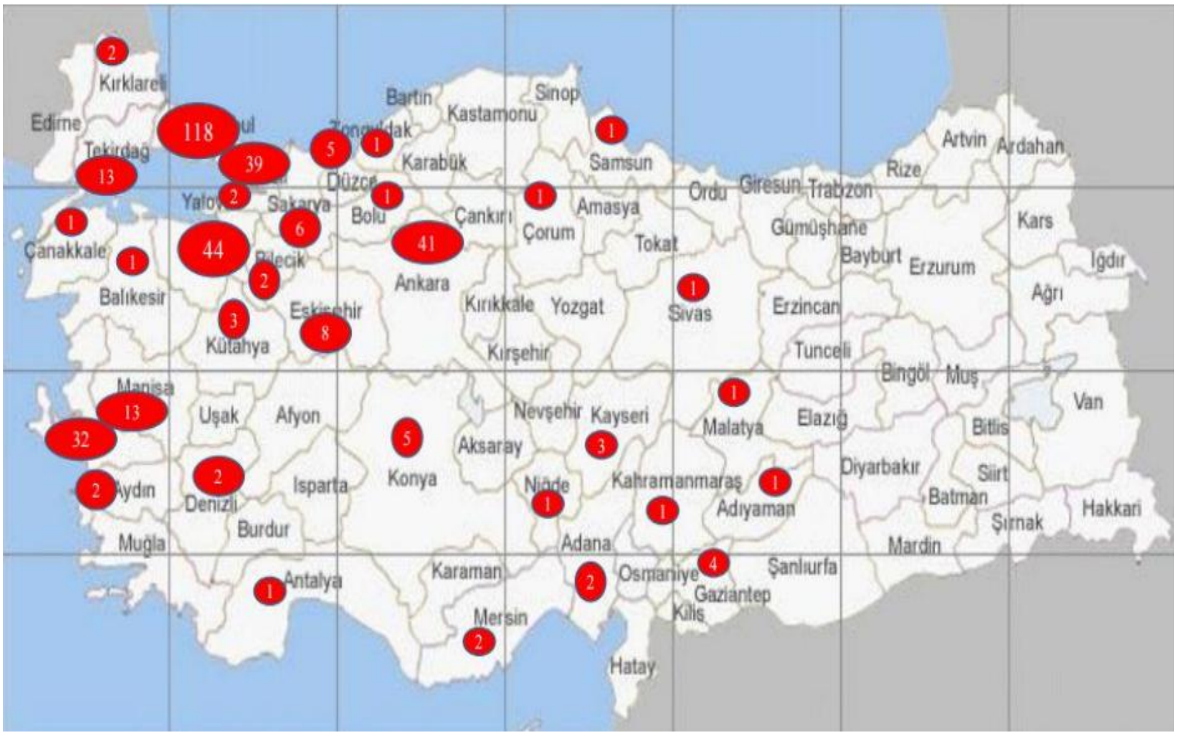


Source: World Bank Databank

When the figure above is examined, it is seen that Turkey is far behind the world in terms of R&D expenditures.

In addition to this, it is seen that R&D activities and R&D centers in Turkey are not equally distributed across all regions. Therefore, it cannot be said that the development stemming from R&D is fair. The biggest reason for this is the concentration of industrial and production activities in Turkey in the Marmara region. As a result, R&D centers have also concentrated on the Marmara region. At the same time, this situation causes the population, workforce, employment and development to be squeezed into one region and causes other parts of the country not to benefit equally from the development of the country. The representation of Turkey's R&D centers on the map is presented below.

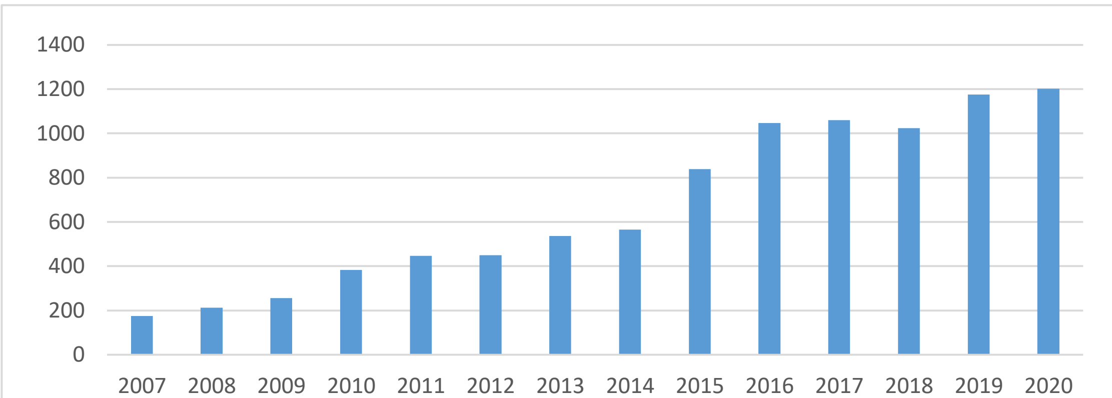
Figure 14. R&D centers of Turkey



Source: Bulut &Akcaci, 2017

The number of patents and high-tech exports are crucial markers of a country's development status. When we look at the developed countries, we can see that they have a significantly higher number of patents and high-tech exports than the rest. As a result, it is regarded that the number of technological patents and high-technology exports are two essential factors in assessing Turkey's economic progress. Figure 15 shows the number of Turkish technological patents.

Figure 15. 2007-2020 The Number of Technology Patents in Turkey Between 2005-2020

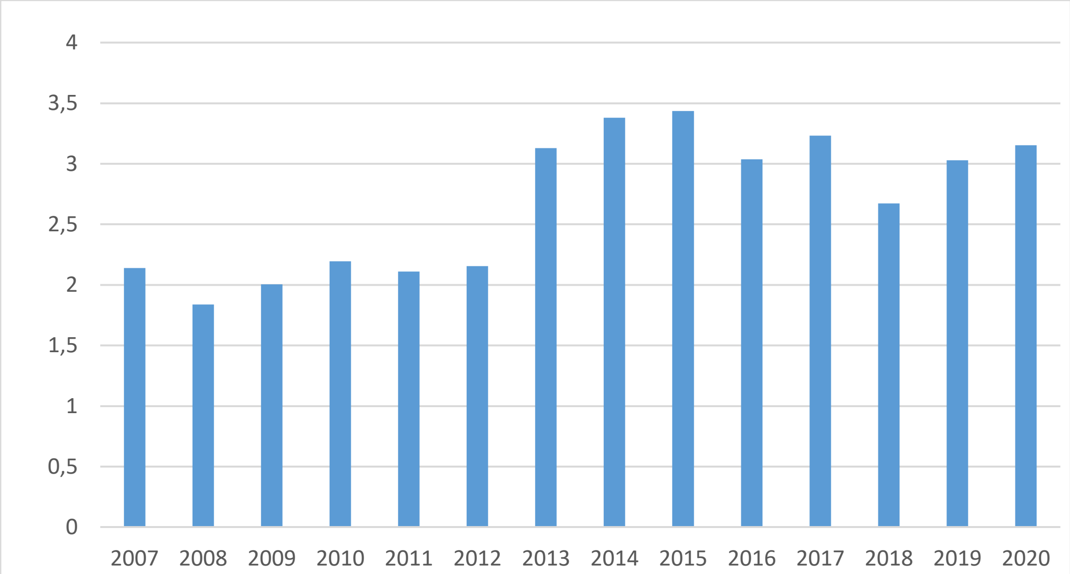


Source: WIPO

Figure 15 shows that the number of technological patents issued in Turkey has nearly doubled since 2007. This is a crucial indication for the country's long-term development. However, when compared to the number of industrialized countries, the number of patents is rather low.

Figure 13 shows data on high-technology exports as a percentage of overall production exports in Turkey. Exports products are categorised by OECD to 4 categories such as high, medium high, medium low and low technology. High-technology exports are products with high R&D intensity, such as aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery.

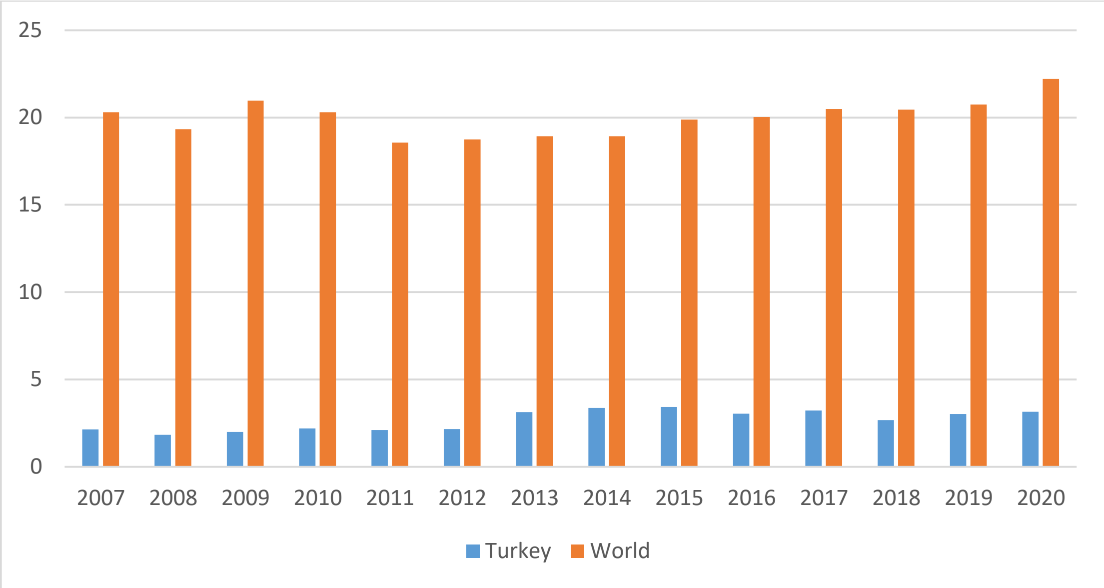
Figure 16. 2007-2020 High Technology Export of Turkey (% Manufactured Exports)



Source: World Bank Databank

As can be seen in Figure 16, Turkey's high technology exports have a very small place in total manufactured exports. This situation is one of the main reasons for foreign trade imbalance in Turkey. The import of this high-cost technology and the fact that the export items are relatively low cause an increase in the imbalance in terms of foreign trade. In order to compare with the world in general, the figure comparing the situation of Turkey with high technology exports among all products exported in the world is presented below.

Figure 17. The Comparison Between World and Turkey in High Technology Export of Turkey (% Manufactured Exports)(2007-2020)

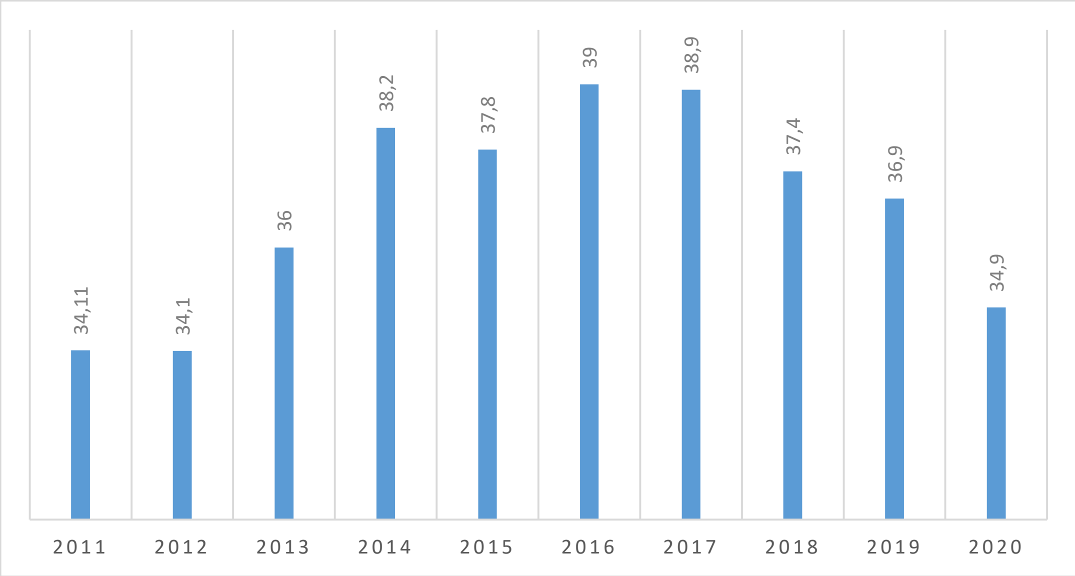


Source: World Bank Databank

When the figure above is examined, it is seen that Turkey is far behind the world in terms of high technology exports.

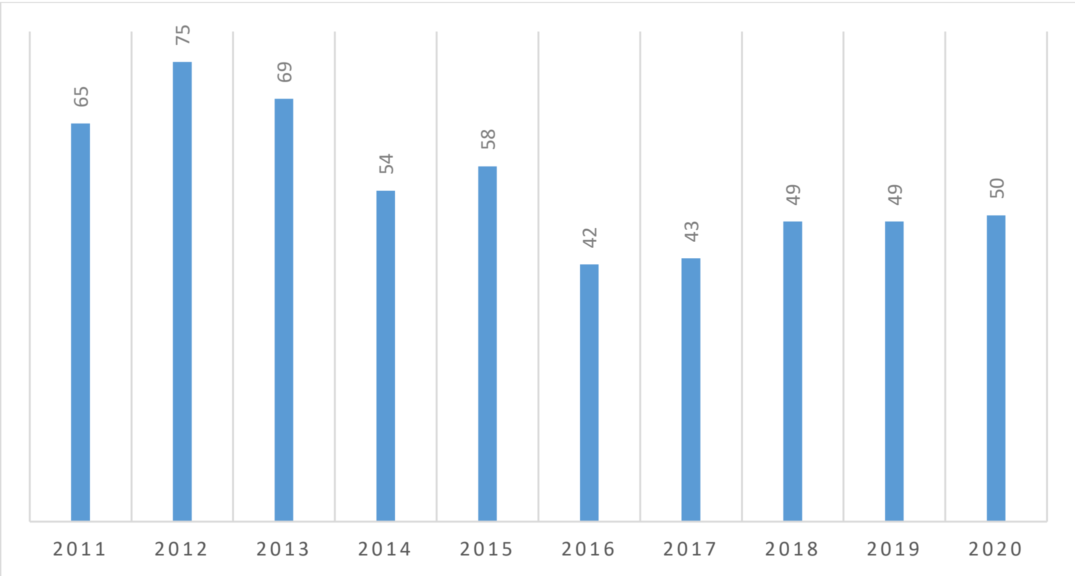
In order for countries to progress on the path of economic development, technology investments and advances in technology are essential. Because, thanks to technology, productivity will increase and trade volume will also grow. A measure of countries' technological progress is the Global Innovation Index published annually by the World Intellectual Property Organization (WIPO). In this index, the technological developments of the countries, the number of patents, the number of research and researchers, R&D investments are calculated by using many different variables. For this reason, it is an important indicator of how much the countries in the Global Innovation Revolution attach importance to economic development and how successful they are in this regard. The change in Turkey's Global Innovation Scores since 2011 is shown in Figure 18, and the change in its place in the world rankings is shown in Figure 19.

Figure 18. 2011-2020 Turkey Global Innovation Index Scores



Source: WIPO

Figure 19. 2011-2020 Turkey Global Innovation Index Ranking



Source: WIPO

Figures 18 and 19 show that, in conjunction with Turkey's R&D operations, the GII score and ranking have improved since 2011, but have been on the slide since 2016, when it achieved the highest score. The GII world ranking, on the other hand, is quite close to the ranking in the Human Development Index, despite the lack of a similarity in terms of criteria.

5 Results and Discussion

In this thesis, Turkey's economic history, the economic programs it has implemented and its development status since 1923, the year of its establishment, are included, and then the situation between 2001 and 2020 is examined over the economic development factors.

The economic policies that Turkey has implemented to ensure development since its establishment differ from each other, and different strategies are tried by governments according to the experiences gained. As it can be seen from the economic history of Turkey, it is seen that some years, especially in economic strategies, appear as breaking years. The first of these years is 1950, when the one-party regime came to an end. Since this year, Turkey has brought its economic policy to a liberal framework, opened up to foreign countries and started to increase its imports. However, he soon faced the negative sides of this policy and experienced an economic crisis in 1958. The coup in 1960 caused another breakdown. Since this date, Turkey has entered a planned period and the plans prepared in 5-year periods have shaped the course of the economy. However, the fact that Turkey's exports are much weaker than its imports and the deterioration in the foreign trade balance has often led to the need for additional finance, and the search for foreign exchange has left Turkey faced with giant balances. The military coup in 1980 was another breaking point. As of this date, the period of import substitution came to an end and an openness policy began to be implemented, and Turkey preferred to completely open up to the global market by completely removing import restrictions. This policy, which has been implemented since 1980, was not enough to solve Turkey's economic problems in general. As of this date, the foreign trade balance started to deteriorate more and the foreign debt of the country increased a little more every year for this reason. After 1980, two devaluations occurred in Turkey, in 1994 and 2001, and economic crises were experienced.

When we look at the economic development process of Turkey from 1923 to 2001, it is seen that the dependence of imports on exported raw materials and intermediate goods, and the importation of goods with higher added value in imports, despite the fact that agriculture is prominent in exports compared to industrial goods, causes the foreign trade balance to be opened continuously. For this reason, the country has constantly sought external resources, and this deficit has sometimes been tried to be closed with foreign direct investments, and sometimes with borrowings from the IMF and other external financial resources.

In the examination of the economic development status of the period from 2001 to 2020, three main headings were taken as basis. The first is economic growth data, the second is the human development index, and the third is innovation and R&D data.

Looking at the economic growth data, it is seen that the GDP growth rates have been positive since 2001, except for the years 2001 and 2009. From these dates, it is thought that the economic crisis that broke out in the USA in 2008 in 2009, when Turkey experienced an economic crisis in 2001, was effective. However, it is seen that these growth figures are not in a trend and give a rather volatile image. In the study, the GPD growth rate of the world was compared with the situation of Turkey, and as a result, it was seen that the growth rate of Turkey was above the world average in general, and that it grew faster than the rest of the world between the years 2001-2020, except for the years 2001, 2009, 2018 and 2019.

Looking at the foreign trade data, it is seen that the difference between exports and imports is constantly growing. When we look at the growth rates of Turkey between 1980 and 2020, it is seen that the current account deficit increases as the growth increases, and the current account deficit decreases while the growth decreases. Tunalı (2011) states that in order for economic growth to turn into a development, savings must increase, and therefore, the need for foreign capital must also decrease. In Turkey, on the other hand, growth increases savings, and consumption and foreign resource dependency increase with growth.

It is seen that there has been a regular increase in the human development index, which is frequently used when examining the development of a country, since 2001 in Turkey. However, despite this increase, the fact that Turkey ranks 54th among 189 countries in the world rankings as of 2020 presents a negative image for Turkey. Kaya(2018) examined the relationship between Turkey's human development index and developments in its financial markets, and concluded that these two variables move in parallel with each other in the long run. The researcher stated that in order for Turkey to make progress on the Human Development Index, it is necessary to increase the GDP per capita and improve its ability to access information.

In order to examine Turkey's development status, the country's happiness table and income distribution with the GINI index were examined in order to look at the social side of the economy. According to the happiness index, it has been observed that Turkish citizens have had a decrease in their happiness rates since 2003.

In addition, it has been observed that the income distribution in the GINI index has increased unequally, except for the years 2007-2010. With these data, although there has been a decrease in the number of poor people in the country since 2006, it is still a high rate of 8.89% in 2020. Kızılgol and Ondes(2020) stated in their study on the decrease in the happiness level of people in Turkey that the decrease in the level of happiness in Turkey is due to the low level of income and employment opportunities, therefore policy makers should take precautions in this regard. However, researchers emphasized that it is important to eliminate uncertainties and to give hope to people for the future in order for people to be happy.

Akalin et al. (2018) examined the relationship between Turkey's GINI index and economic growth in their research. Researchers have revealed that Turkey's economic growth has a reducing effect on income inequality. Researchers pointing out that it is important for the country to achieve a sustainable economic growth for this, stated that this growth will increase the unionization rate and prevent income injustice by minimizing tax evasion.

Doğan and Tatlı(2014) stated in their study that Turkey's human development index and poverty status have increased, although there has been an increase in Turkey's development index since the 1990s, it is far behind developed countries. In addition, researchers pointing out that Turkey's poverty rate is very high compared to the countries in its category, suggested that policy makers should primarily take initiatives to create job opportunities for poor people in order to prevent this situation. In addition, they stated that non-governmental organizations and local governments should take steps to support poor people, but this should be done by creating employment opportunities before social assistance.

Another parameter considered as Turkey's development criterion has been innovation. Innovation was evaluated on the basis of R&D investments, number of patents and Global Innovation Index. It has been seen that Turkey is in a progress in these topics, but when compared to developed countries, it has fallen behind. However, it has been observed that Turkey lags behind in exports of High Technology, which is seen as a result of innovation.

Dagli and Ezanoglu (2021) examined the effects of R&D investments, number of patents and high technology exports on national economies in their study. The researchers pointed out that these three elements play a key role in the rapid development of countries in their studies, and for example, between 1960 and 1994, other countries showed an average growth of 3.5%, while Taiwan, Singapore and South Korea showed 8.5%. They gave an example of growth. Emphasizing that these countries were in a similar situation to Turkey at the beginning, the researchers stated that the gap between the countries widened rapidly due to the investments they made in technology and R&D.

Dayanır et al. (2021), in their study to examine the economic growth effect of R&D Expenditure and Patent numbers, reached a conclusion contrary to the literature. The researchers concluded that the number of R&D and patents does not increase the economic growth, but the economic growth increases the number of R&D patents. As a result of their studies, the researchers emphasized that economic development cannot be evaluated only in terms of R&D and patent numbers, and that much more comprehensive policies should be followed for this. As a result of their research, they stated that economic development is directly related to education, foreign investor inflows and efficient use of investment, therefore policy makers should give importance to these issues and planning.

In this thesis, Turkey's economic development has been examined in many ways and it has been seen that the data presented are similar to other studies in the literature.

6 Conclusion

The economic development of Turkey has been studied in this thesis in a variety of methods. First, the economic position in Turkey in 1923, the year of its founding, was investigated, followed by an examination of the process that Turkey through from 1923 to present.

As a result, while making significant economic gains in several areas, Turkey has fallen behind its ambitions and industrialized countries. The following are the reasons for this:

• It is frequently shaken by economic crises due to the inability to produce sustainable solutions for the foreign trade balance,

• Although economic growth has been achieved, this growth does not cause savings growth,

• Inability to find a solution to income inequality,

• The economic development provided is limited to certain regions of the country and cannot be spread throughout the country,

• The continuous growth of the foreign trade deficit due to the inability to export high technology,

will be displayed.

As a result, in order for Turkey to achieve a regular development trend, it must first establish a foreign trade balance. For this, it is necessary to make plans to increase the added value in export products, and to increase incentives for R&D and technological developments. In order for income distribution to be more equitable, it is necessary to create job opportunities for poor people, and to focus on regional incentive practices in order to spread industrial development throughout the country.

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