Middle Income Trap and Turkey: Ways of Getting Out

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Abstract

The main problem of developing countries in today's economy is that they cannot increase their per capita income above a certain level. This situation is expressed as middle-income trap. Being stuck at a certain level of gross domestic product per capita for long years, raised the question of whether Turkey is caught in the middle-income trap.

Aim: To assess the situation in Turkey in terms of middle-income trap concept and to provide recommendations.

Method: The concept of middle-income trap will be defined, relevant literature will be presented, exit strategies brought in the literature will be presented in conjunction with Turkey's current data.

Findings: Whether or not in the middle income trap, there are important steps to be taken by Turkey in order to become a developed country economy: These can be listed as increasing the savings rate and investment in R & D and innovation, improving the quality of education, ensuring fairness in income distribution and in particular raising the level of technology used in the manufacturing industry

Keywords: Middle Income Trap; GDP Per Capita; Economic Growth; Turkey.

1. Introduction

The middle-income trap (MIT) has long been one of the most debated issues in the economy and has been one of the problems of developing countries. Although it is argued that the exit from the middle-income trap passes through growth rates, the high growth rate may not indicate that economic development is achieved. Although a country's growth figures are high, many economic indicators such as inequality in income distribution, quality of education, per capita income, R & D and savings level may not be sufficient. Turkey has realized significant increases in gross domestic revenue but could not bring it to a sufficient level. Many factors can be cited as the cause of this situation. The aim of this study is to evaluate the middle-income trap within the framework of Turkey's position and the discuss the policies that should be implemented to exit the trap.

2. Middle Income Trap Concept

The concept of middle-income trap was first used by World Bank experts Gill and Kharas in a report published by the World Bank in 2007 entitled "An East Asian Renaissance: Ideas for Economic Growth". Gill and Kharas define the middle-income trap as the status of middle-income countries to remain at this income level for a long time and inability to move to a higher income group. In other words, countries caught in the middle-income trap lose their comparative advantage in industrial products against low-income countries where wages are relatively low and cannot compete with high-income countries that produce and export high value-added products based on innovation. (Gill & Kharas, 2007:4-5)

In recent years, the concept of middle-income trap has become a frequently used term in the field of development policy. The concept has beeen defined in different ways by different researchers. Some economists argue that the concept refers to a process, while others limit the phenomenon to various economic thresholds. The concept has even been described in some research as capturing a leading country (USA). Other definitions are based on stagnation or painfully slow growth rates at absolute income levels.

In the context of the development strategy or microeconomic determinants of growth, some authors have focused on the specific position of middle-income countries (MICs) in the global supply chain. The basic idea is that revenues and wages in MICs are so high that they require abandoning low-skilled labor-intensive activities, but that MICs are not yet able to develop national innovation systems or accumulate sufficient physical and human capital to compete with more sophisticated products in high-income countries. (Gill ve Kharas, 2007; Shijin et al, 2012; Xiaohe, 2012; Flaeen et al, 2013). Aiyar et al. (2013) described the middle-income trap as a special case of growth slowdown and investigated the determinants behind these slowdowns.

When the concept was first proposed, it was discussed what middle income level should be considered and some researchers identified twenty percent of per capita income of USA as middle income level (Woo,2011; Lin ve Rosenblatt, 2012). Today, as is generally accepted, the World Bank's classification of income per capita is taken into account in determining the income levels of countries. The World Bank has been publishing countries' economic indicators since 1987, as well as determining income groups. According to 2017 data, this classification is as follows.

Table 1. Classification of Income Groups for 1987 and 2017

	1987	2017
Low Income (LI) Economies	<=480 $	<=995 $
Lower-Middle Income (LM) Economies	481-1.940 $	996-3.895 $
Upper-Middle Income (UM) Economies	1.941-6.000 $	3.896-12.055 $
High Income Economies (HI)	>6.000 $	>12.055 $

Source: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
(Date of access: 23.02.2019)

However, in some studies dealing with the middle-income trap, different criteria and threshold values have been identified. For example, Eichengreen et al. (2012), defined the middle-income trap as the slowdown or stagnation in growth. According to this approach, the following three conditions must be fulfilled in order to determine whether countries are in the middle-income trap (Eichengreen et al, 2012):
  i) Average growth rate of 3.5% and more in the seven-year period before the slowdown in growth occurs,
  ii) At least two percentage points decrease in the average growth rate in the seven-year period following the slowdown in growth,
  iii) Per capita income is more than $ 10,000 in terms of purchasing power parity and 2005 prices.

Eichengreen et al. also investigated the conditions under which the country would not be caught in the middle-income trap and put forward the following three conditions (Aydın and Yalın ,2018):
  i) Based on 2005 fixed prices, per capita income should be around $ 16,740,
  ii) This value should correspond to 58 percent of the per capita income of the leading country,
  iii) The share of manufacturing industry in employment should be 23 percent.

On the other hand, Felipe et al. (2012) grouped countries into 4 different income levels. According to this distinction, the countries whose income is less than 2000 dollars are determined

as low, the countries which are between 2000-7250 dollars as low-middle, those between 7250-11750 dollars as high-middle and those who have more than 11750 dollars as high income. Felipe et al. also determined whether a country is in MIT (Middle Income Trap) according to the number of yearscountry spent in the middle-income group. Accordingly, if a country has remained at low-middle income level for 28 years and more, it is caught in the low-middle income trap, and if it has remained at high-middle income level for 14 years and more, it is caught in the high-middle income trap. It is also one of the results of the study that the average per capita income growth rate required for a low-middle income country to escape from the trap should be 4.7 percent and that of a high-middle income country at least 3.5 percent.

Table 2. Economies That Moved from Lower-Middle Income Group to Upper-Middle Income Group

| Country	Continent	2010 GDP per capita	No. of years in LM	No. of years in UM until 2010	Yaers left to fall into MIT	Average Growth (%) 2000-2010	Ave. growth (%) to reach $11,750
Thailand	Asia	9,143	28	7	7	3.5	3.6
Bulgaria	European	8,497	53	5	9	4.7	3.7
Hungary	European	9,000	51	10	4	2.4	6.9
Turkey	European	8,123	50	6	8	2.3	4.7
Costa Rica	Latin America	8,207	54	5	9	2.9	4.1
Mexican	Latin America	7,763	53	8	6	0.7	7.2
Oman	Middle East	8,202	33	10	4	1.4	9.4

Source: Felipe vd., 2012:22

According to the study; Turkey was among the low-income countries before 1953, it rose to lower-middle income status in 1953, remained at the same level until 2005. Also, in the Felipe study, 23 countries that passed from upper-middle income to high-income group were discussed. The average time spent between these two groups was calculated as 14 years. (Felipe et al, 2012). It has left 8 years for Turkey to fall into the trap as of 2010, this time is up as for today, but Turkey still has not been able to achieve this status. On the other hand, MIT has been considered as a process in some studies and the concept has been defined within the stages of concept development (structural change) process.

3. IncomeTrap Process: Symptoms and Causes

The most important studies that treat MIT as a process are Ohno (2009) and Agenor et al. (2012) studies. Ohno (2009) examined the growth stages of the countries in East Asia in five stages. The first stage is an economic structure in need of agriculture and external resources called poverty trap. It is stated that this situation can be avoided primarily by making foreign capital investments in the light manufacturing industry.

Figure 1: The Process of the Middle-Income Trap
Middle income trap
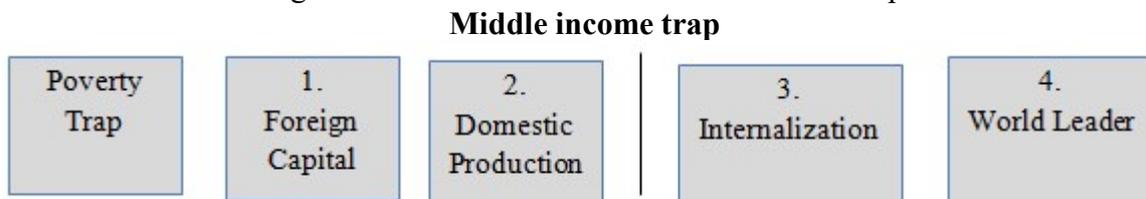
According to Ohno, low-income economies become dependent on foreign aid at the outset and production activities are concentrated in mining and agriculture sectors. In the first stage, all processes from production to technology and marketing are held by foreign companies, and the country participates in production by importing basic raw materials and by providing unskilled labor and land. At this stage, income of poor countries increases but domestic value remains low. This internal value created is obtained by foreign companies. In the second stage, the growth in production achieved by attracting foreign capital into the country will activate domestic production. In this process, the value created by competition is growing. Countries such as South Korea and Taiwan have succeeded in leaping to the third stage. However, there are countries such as Malaysia and Thailand, who are caught in the so-called 'glass ceiling' MIT because they cannot jump from this critical threshold. The third stage is the hardest stage and it needs internalization of knowledge and skills with human capital. A country in this stage will be successful with the replacement of foreign companies by local companies in many fields such as technology, marketing and production. Internal value will increase, external dependence will decrease. The country will be able to compete by exporting products. In the last stage, the country will be able to compete with the world's giants by being capable of producing innovative products. Only USA, Japan and the central countries of the European Union reached the fourth and final stage. However, it is not possible for all countries to proceed in the same way. Some countries cannot attract enough capital, and some cannot move from one stage to another. At this point, middle income trap emerges (Ohno, 2009: 28-30).

Another study in which MIT is considered as a process was conducted by Agenor et al. (2012). According to the authors MIT consists of the following stages:

1) In the initial phase, a low-income economy produces agricultural production using more labor-intensive technology. Moving to the middle-income economies group, it shifts from the agricultural sector to the low-cost manufacturing sector.

2) At this stage, with the imported technology, the productivity level of the labor force increases and acceleration in growth is realized.

3) Over time, the unskilled labor transferred from agriculture to manufacturing becomes excessive and unabsorbable, hence productivity growth slows down and growth becomes stagnant.

4) When the country reaches the middle- income level, there are two phenomena that threaten the economic structure: The increase in the real wages in the manufacturing sector increases the cost and decreases the profits due to import substitution policies.

5) As a result of these two cases, growth slows down and the country is trapped. It can't rise to upper income level. It is claimed that this growth problem called MIT will be overcome by maturing the infrastructure, improving the labor market, strengthening property rights and encouraging 'innovation' based production (Aydın and Yalın, 2018: 8).

However, this transformation may take many years to come true, and countries that do not make the necessary reforms may remain in the same income group for many years. Economic growth has become increasingly difficult with globalization. In the post-war period, although many countries rapidly reached middle-income status, few of them were able to achieve high-income levels. On the contrary, many countries have fallen into the middle-income trap. Factors and advantages (low-cost labor and easy technology adaptation) that provide high growth in the rapid development stages of these countries have disappeared when they reach the middle-income level; upper-middle income levels have forced them to find new sources of growth. Low-income countries are able to compete in international markets by producing labor-intensive, low-cost products using technologies developed abroad. High productivity gains result from the reallocation of labor and capital from low-yielding agriculture to high-yielding production. When countries reach the middle-income level, unemployed rural labor force decreases, wages rise and adversely affect competitiveness. The increase in productivity resulting from sectoral reallocation of resources and

technology competence is eventually depleted and increased wages make the export of labor-intensive products less competitive in the international arena. If countries cannot increase productivity through innovation (instead of continuing to rely on foreign technology), they will set themselves up. As a matter of fact, according to the World Bank's China 2030 report published in 2013, only 13 out of 101 middle-income economies were able to reach high income levels by 2008. These countries are Equatorial Guinea; Greece; Hong Kong SAR; Ireland; Israel; Japan; Mauritius; Portugal; Porto Rico; Republic of Korea; Singapore; Spain; and Taiwan (China 2030: 12).

There are various signs and characteristics of the economies caught in the MIT:

i) **Low Savings and Investments:** While the population growth rates of the countries falling under the MIT are at high levels, they are very low in countries with high income levels (HIL) and even negative in many of them. High population increase the denominator of disposable income per capita ratio and as a result, disposable income per capita of the countries falling into the MIT and the saving rates depending on these results can be realized at very low levels.

ii) **Slow Development and Lack of Diversification in the Manufacturing Industry:** When the economic growth of the countries that reach HIL is examined, it is observed that the main sector is industry.The share of high value-added industries such as basic heavy industry, arms industry, aircraft manufacturing, energy production, electronics industry using silicon products such as computer/mobile phone, TV, etc. and software industry is high and also increasing in the total production of HIL countries Whereas in MIT countries, the investments made in the sectors that HIL countries have abandoned (automotive industry, assembly industry, light communication industry, spare parts industry, textile industry and mainly service sectors) is accelerating; in this last case, net added value / total production ratio, which is already low in MIT countries, is falling further.

iii) **Weak Conditions in The Labor Market:** As for the sharing of added value (national income) in MIT countries, while the share of labor power is low and the share of capital is high, the opposite is seen in the HIL counties. This results in low savings rates and hence the problem of lending in the financial sector and the difficulties in financing investments in MIT counties (Eğilmez, 2012).

4. Turkey's Status in the Framework of Middle-Income Trap

Turkey was located in the lower middle-income class with 44 countries as of 1987. World Bank data of 218 countries (2017 data) are presented in the table below. With $ 10.940 income per capita Turkey is currently located in the upper - middle income group.

Table 3: Comparison of Turkey with Other Income Groups :2017 Data

	Number of Countries	Population (Million)	GNP (Billion $)	GNP per capita ($)	Growth (%)
World	221	7.530.4	78.068.8	10,366	3.2
Turkey	-	*80.7*	*882.9*	*10.940*	*7.4*
Low income	31	732.4	545.0	744	5.7
Lower-middle	53	2,972.6	6,296.5	2,118	5,3
Upper middle income	59	2,576.2	21,103.4	8,192	4.8
High income	78	1,249.1	50.132.5	40.136	2.2

Source: http://wdi.worldbank.org/table/WV.1 (Erişim Tarihi:23.02.2019)

Although Turkey, with national income per capita of $ 10.940, is currently above the average in the upper-middle income group, still has not reached the upper income level. Looking at the table, we can see that as the income level increases, the growth rate and population density decrease. For example, high-income countries constitute 35% of the total number of countries, 15% of the total population and 63% of the world's GDP. This shows the importance of a qualified, working population.

The following comparison can be made between Turkey and the emerging countries which get over the middle-income trap.

Table 4: Comparison of Turkey with Middle Income Countries Out of the Trap

	Year country passed to upper middle income group	Year country passed to high income group	Average growth between two periods (%)	Population growth between two periods (%)	Increase in GDper capita between two periods (%)
Chile	1993	2012	5.18	23	315
Croatia	1995	2008	4.24	-0.5	155
Panama	1998	2017	4.01	41	235
Slovakia	1996	2007	4.97	0	197
Average	0	15	4.6	15	225
Turkey	2005	-	5.78	19	61

Source: https://data.worldbank.org/?locations=PA-HR-CL-SK-TR

According to this table; during the last 12 years from 2005 to 2017, Turkey has increased income per capita by 61% while this rate averages to 225 % for the countries which came out of the middle income trap. According to this table it can be said that the most important point negatively affecting Turkey is population. Although the population increased more than that of Turkey in Chile and Panama, their national income has also increased at high rates. It's noteworthy that Turkey has fallen behind at this point.

5. Ways of Getting Out of the Middle-Income Trap

The solutions to overcome the middle-income trap may differ for each country. The strategies in the study are prepared over the problems Turkey has been facing. By the increases to be made in saving rates, investments made in manufacturing industry, R & D and innovation as well as increasing the level and quality of education and solving the injustice problem in income distribution, development will be felt by all individuals and will lay a solid foundation for sustainability of growth (Eğilmez, 2012; Yeldan et al., 2013: 164).

5.1. Increasing Economic Growth

Economic growth is the most important indicator for countries that want to get rid of the middle-income trap. Since it is known that economic growth is the first condition of exit from the middle-income trap, countries should focus on the factors affecting economic growth and development. These factors can be listed as: geography, trade, population, capital and natural resources (Temel, 2016: 3)

According to TurkStat data, Turkey shrank by 3% in the fourth quarter of 2018. The average dollar rate in 2018 is calculated as 4.72, and the value of GDP in dollars makes 784 billion dollars with this calculation. It can be seen that the national income, which was 851 billion dollars in 2017, decreased by 7.8% in 2018. The income per capita also decreased from $ 10.546 in 2017 to $ 9.632 in 2018. The decrease is 8.6% compared to the previous year. The economist Mahfi Eğilmez explains the conditions affecting this downturn as follows growth and development. These factors can be listed as: geography, trade, population, capital and natural resources (Temel, 2016: 3)
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5.2. Increase in Saving Rates

Table 5. Fourth Quarter Comparison of 2017-2018

	2007	2017
Turkey	0.23	0.26
Singapore	0.52	0.50
South Korea	0.33	0.36
Greece	0.13	0.10
Israel	0.24	0.24
Hungary	0.18	0.27
Slovakia	0.24	0.23

Source:http://www.mahfiegilmez.com/2019/03/turkiye-slumpflasyona-girdi.html (Date of access:20.03.2019)

Savings remain at low levels due to low income level, and capital accumulation comes to a standstill when savings remain low. As a result of this situation, a decrease in investments is observed. Development will be stronger as savings and investments are increased. It is observed that the saving rates of the countries in the middle-income trap are at a low level compared to other countries. In the World Bank report updated every year, Savings/GDP rate is %37 for upper-middle income countries whereas this ratio is % 25 for Turkey.

Table 6. Ratio of Savings to Total Income by Countries

	Fourth Quarter of 2018 (%)	Meaning
Decline in industrial production	7,4	Decrease in production - negative impact on growth
Decline in retail sales	0,9	Decline in demand - negative impact on growth
Decrease in consumer confidence index	10,6	Demand decline - negative impact on growth
Increase in unemployment	17,5	Demand falls with the increase in the number of unemployed
Decline in economic confidence index	19,5	Deterioration of expectations - decline in investment, production and demand
Decrease in loan / deposit ratio	2,5	Positive for inflation - negative for growth
Currency basket rate increase	36,5	Positive for exports and tourism - negative for debt and production
Indicative Interest increase	60,5	Negative exchange rate increase for production and investment and positive for inflation
CB average interest rate increase	88,2	Negative impact on loan interest due to resource cost
CDS premiums increase	126,3	Increased risk increases the cost of outsourcing. Negative impact on production and growth

Source: (https://data.worldbank.org/indicator/NY.GNS.ICTR.GN.ZS?end=2017&locations=TR-SG-HU-SK-JP-KR-IL-GR-IE-CL&start=2007, 2019)

Foreign savings are needed when savings are lower than investments. From the perspective of savings and investments, there are two options. The first option is to invest up to savings, the second option is to meet the need of investment with foreign capital. Turkey, due to inadequacy of direct and indirect capital in meeting the investment rate, has preferred external borrowing (Eğilmez, 2013).

States can choose to use domestic and foreign borrowing as well as taxes and emissions (coining) for financing. It is not possible for developing countries to develop without the need for external financing. Since capital is a scarce production factor, the inadequacy of savings is compensated by external borrowing. Provided that external debt is used in accordance with the

purpose of borrowing, it will contribute to the national economy. Otherwise, it will be a burden for the country's economy (Ülgen, 2005: 21). Each country uses debt financing for particular periods, but Turkey also has to endure the thick of the currency risk on borrowing funds denominated in foreign currencies and in case of any rise in currency rates, this negative exchange difference adds up to the debt burden.

The World Bank categorized the total of 217 countries in terms of debt burdens fort he 1990-2005 period as:

-Heavy debtors-Medium debtors-Debtors

Turkey, moderately indebted from 1990 to 2004 has been located as heavily indebted in 2004 and 2005 (World Bank, 2019).Turkey's external debt for 2018 is 448,4 billion dollars, according to third quarter data. The ratio of this debt to GNP is 53.8%. In other words, it can be said that 53,8 TL of the each 100 TL income obtained in a year is made with debt. In this context, the amount of debt per capita ($ 1.571 in 1998 and $ 5,600 in 2017) increased by 3,56 times in 19 years.

5.3. Development of Manufacturing Industry

Turkey must achieve competitive strength in the manufacturing industry in order to reach a certain level of economic growth. Domestic production in the manufacturing industry will have a positive impact on development by increasing savings (Özen, 2015: 1). One of the reasons why Turkey is in middle income trap is its inability in producing high value-added products in the manufacturing industry.

In order to take a closer look at the state of the manufacturing industry, capacity utilization rates need to be examined. Capacity Utilization Rate is the ratio of the amount of production realized by the manufacturer to the amount to be physically produced at maximum degree. Generally, this ratio does not occur as 100%. For a number of reasons production is always incomplete. While the average capacity utilization of the manufacturing industry was 81,98% in 2007, this rate is 76,5 % in 2018. As of 2019, capacity utilization rate has fallen to the lowest level of the last six years.

5.4. Import Addiction in the Manufacturing Industry

The use of imported goods by the manufacturing enterprises during the manufacturing phase leads to an increase in the foreign trade deficit. The factors that push companies to import are as follows: relatively expensive domestic intermediate and investment goods, lack of quality, lack of production, technology used, attractive foreign financing (TCMB, 2009). The increase in the import dependency ratio in the manufacturing industry results in an increase in imported goods and investments which is more than the increase in production. Therefore, it causes a decrease in the share of domestic industry. The increase in imports leads to a decrease in savings, an increase in the current account deficit and a dependency on manufacturing. The fact that the manufacturing industry does not show stable growth and that the sectors with high import dependency are the leading sectors increase the current deficit. (Özlale and Karakurt, 2014: 28,24)

Another problem for the Turkish manufacturing industry is its concentration in the low or medium low technology group. The table given below shows high technology exports between 1990-2017.
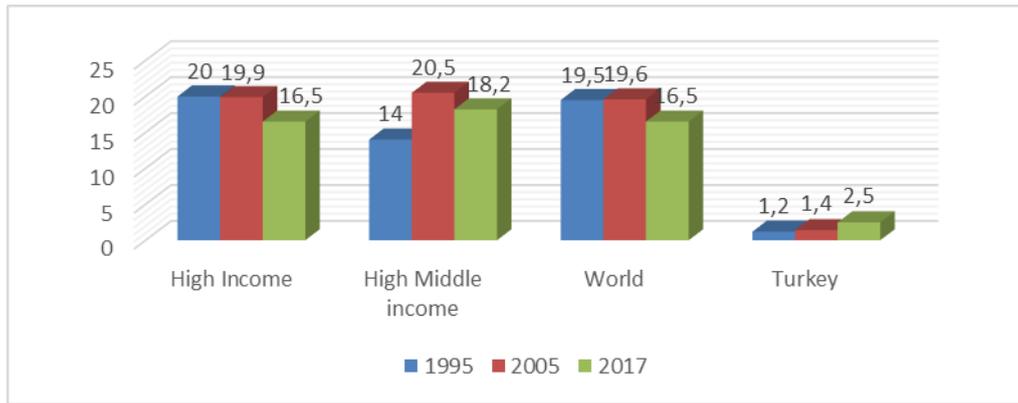
Figure 2. Ratio of High Technology Exports by Total Exports

Turkey's high-tech exports has long been seen as a problem. The high-income group's ratio of high-tech exports to total exports was 16.5% in 2017. The average of the upper-middle-income countries including Turkey has been realized as 18,2% whereas this ratio is only 2,5% for Turkey. Turkey is also located below the world average. As can be seen from the figure, Turkey underperforms relative to its income group.

It's clearly seen that; Turkish manufacturing industry is unable to capture the developments in the world, concentrated in low- and medium-tech products, and in the position of an importer of high-tech products. (Eşiyok, 2013: 8).

5.5. Increasing R & D and Innovation Investments

According to the researches, the increase in the R & D activities makes a positive contribution to the productivity of countries. It is expressed that investments made to increase the R & D knowledge accumulation will turn into new technologies or more efficient use of existing physical and human resources. R & D is defined by OECD as conducting creative activities based on a systematic basis that increase human, social and cultural knowledge and using this knowledge in new applications (Erkiletoğlu, 2013).

There is a difference between R & D and innovation. According to the Fraskati Guide; research and experimental development (R & D) are creative works carried out on a systematic basis to increase the knowledge of people, culture and society and to use this knowledge to design new applications. Innovation in practice is defined as all sorts of novelty that creates added-value and turn into money whereas R & D is defined as scientific and / or technological activities, whose results are not necessarily expected to turn into money (Eşiyok, 2013: 2).

Pessoa (2010) explained the relationship between R & D and economic growth as follows: Scientists find an idea, and if the idea turns into a product it passes to the production process and a new market will be created. What should be done with the new market is to increase demand. The increase in demand, will also increase competition and exports. From this point economic growth will naturally follow. (Pessoa, 2010: 152) Globalization, which started in the 1980s and continued with the 1990s, has shown great progress in R & D as in all fields. As a result of the increasing competition, the results of R & D studies have become easily communicable with the increasing access to the internet. Many studies have shown that technology has a high share in the transition to welfare society. (Çakmak, 2003: 4)

According to a study published by the World Bank, R&D expenditures of countries as a percentage of GDP are given in the table below.

Table 7. Comparison of Turkey's R & D expenditure (% of GDP)

	2000	2005	2010	2016
High income	2.301	2.241	2.394	2.505
Upper-middle income	0.706	0.883	1.193	1.782
World	2.087	1.985	2.040	2.310
Turkey	0.468	0.569	0.799	0,940

Source: https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=TR-1W-XT-XD (Date of Access: 25.02.2019)

According to the study; Turkey's ratio of R&D spending to GDP in 2000 (% 0,468) seems very low relative to other groups. This situation has not made much progress in 2005 when Turkey passed to the upper-middle income group and in the eleven years onward.

In the latest data published by TURKSTAT , total R & D expenditure increased to 29.8 billion dollars in 2017 and its share in GDP is announced as % 0,96.

Turkey's R & D spending in 2017 is $ 29.8 billion   while some overseas companies almost reach this amount standalone. South Korea's domestic firm Samsung has spent $ 15.3 billion in 2018 for R&D (PWC, 2019). The reasons for this may be the number of researchers and patent purchases.

Table 8: Turkey's Comparison with Country High-Income Group in terms of Number of Patents and Researchers

	Purchase of patents by years		Number of researchers per million by years	
	1997	*2016*	*1997*	*2016*
Turkey	1530	6848	309	1.163
Singapore	6336	10980	3.094	6.729
South Korea	67.359	163.424	1.985	6.856
Greece	350	646	-	2.652
China	2385	13.885	383	1.096
Israel	2886	6419	-	8.250
Japan	401.618	318.381	5.135	5.338
Ireland	940	287	2.058	4.422
Chile	2572	2907	-	430
Hungary	1625	665	1.141	2.671
Slovakia	1802	335	1.880	2713

Source: (http://uis.unesco.org/apps/visualisations/research-and-development-spending/ (Date of Access: 25.02.2019)

"Global Competitiveness Report" published in 2018 describes the position of Turkey in terms of innovation and competitiveness. According to the report; Turkey is on rank 66 in "Innovation and Diversity" title and on rank 106 in 'Building Competitive Advantage" title among 137 countries.

5.6. Improving the Efficiency of Education

The complete structuring of the education system is important in terms of creating qualified human potential. With the increase in education, development can take place. In today's world competition is increasing and high-income countries show their differences with education. (Aydin et al, 2012: 24). The effect of education level on income has been the subject of many studies. We can explain the relationship between education and income with the report published by TurkStat in September 2018. According to the report; while 25,4% of illiterate and 21.7% of those who do not finish a school are poor, this rate is 11.7% for under-high school graduates and 5,5% for high school graduates. Higher education graduates, on the other hand, have the lowest poverty rate with 1.5%. (TURKSTAT, 2018)

When the government expenditures on education are taken into consideration, the table that emerges is as follows:

Table 9. Share of Education in Total Budget

	2000	2015
Turkey	2.5	4.3
High income countries	4.8	4.3
Upper-middle income countries	3.9	5.3
Israel	6.1	5.9
Nicaragua	3.0	4.1
Mauritis	3.8	4.9
Spain	4.2	4.3
Chile	3.8	4.9
Finland	5.7	7.1

Source: https://databank.worldbank.org/data/ , 2019)

According to the Global Competitiveness Report, other notable aspects of education are listed as follows: Among 137 countries, Turkey has 105th rank for the quality of primary education criteria and could not derive itself from the group of Mozambique, Nicaragua, Tanzania, Ethiopia and Cambodia. When we look at the primary school enrollment rate of students, Turkey has been placed in 82nd rank with 94.1 percent score. The country's 103rd place in the capacity to attract talent component shows the inefficiency in the labor market (http://www3.weforum.org/docs/GCR2017-   2018/ (Date of Access: 25.02.2019)

5.7. Achieving Justice in Income Distribution and Social Welfare

The main objective of economic policies is to increase the welfare level of a country. The extent to which increased income changes the living standards of individuals and the extent to which this income is equally divided into different strata of society is the most important issue to be examined in this context. Inequalities in income distribution will be problematic for ensuring social and economic justice.

National income, which is not evenly distributed across all layers of the population and accumulates in the hands of a certain mass, will create inequality of opportunity in the long term and affect the economy negatively on many issues (Karakayalı and Dilber, 2013: 209-210). The most well-known method used to show the inequality in the distribution of income or wealth among the population is the Gini coefficient method. The gini measure ranges between "0 and 1. In a society, if the income is shared fairly, the Gini coefficient is equal to "0 and if the income is possessed by only a certain group, the Gini coefficient is equal to "1 ". When the individual income distribution in Turkey is examined, the results according to Turkstat report published in September 2018 are as follows.

Table 10: Analysis of Income Distribution in 20% Tranches

	2016
Turkey	0.40
Hungary	0.29
South Korea	0.29
Greece	0.33
Spain	0.34
Israel	0.35
European union	0.31
OECD	0.32

Source: http://www.tuik.gov.tr/ (Date of Access: 25.02.2019)

In the table, the first 20 percent shows the poorest and the last 20 percent shows the richest group. In line with the above data, the lowest 20 percent received 6.3% of the total national income. Whereas, the highest 20 percent achieved 47.4% of the total income. The P80 / P20 ratio in the table shows the difference in income between the richest and the poorest 20%. This difference was 7,5 times in 2017. The increase in the Gini coefficient from 0,404 in 2016 to 0,405 in 2017 reveals a worsening in the justice of income distribution.

Table 11: Gini Coefficient by Countries and Groups

20% individual groups	2016	2017
Total	100	100
Top 20 percent	6,2	6,3
Second 20 percent	10,6	10,7
Third 20 percent	15,0	14,8
Fourth 20 percent	21,1	20,9
Last 20 percent	47,2	47,4
P80 / P20 Ratio	7,7	7,5
Gini Coefficient	0,404	0,405

Source: https://data.oecd.org/ , (Date of Access: 27.02.2019)

Achieving justice in the distribution of income goes through tax policies and structural reforms. If the weight of the indirect taxes such as Special Consumption Tax (SCT) and Value-Added Tax (VAT) collected from all segments at the same rate is high among total taxes collected, this may create injustice in income distribution. Direct taxes such as corporate tax have positive effect on income distribution. As a result, because they are based on expenditure, not on the level of income earned, indirect taxes lead to a social injustice (Eğilmez, 2012).

Conclusions and Recommendations

By entering an open market economy model after the 1980s, Turkey has göne into competition with the rest of the World. In the increasingly globalized World, Turkey's primary goal was to become a high-income country. However, being in the low- middle income level for 51 years and being stuck at the upper-middle income level for 15 years affected the competition with other countries. This situation as well as the decline in national income per capita puts Turkey in a tight position.

The low savings rates have increased Turkey's current account deficit and caused to become dependent on imports. The results of the current savings policies will be examined in the coming years. However, with the inclination to saving, expenditures will decrease and national income will be affected negatively. High income countries first increased their savings in order to get out of the middle-income trap and then invested in sectors such as industry and technology. These countries have opened a new market for themselves by searching for high value-added products. The emergence of new products will be possible with the support of R & D, innovation investments and the manufacturing industry. At the same time the establishment of research centers in universities, increasing the incentives to patent and innovation may allow Turkey to take part in the global market. Technology exports can be increased with incentives and reforms. The fair share of the income that will be raised as a result of improvements in all these issues will demonstrate the sustainability of growth and development. Unfair distribution of income in Turkey is more than most countries. This situation can be healed by decreasing the rates of indirect taxes and by increasing the rates of taxes on wealth, controlling inflation and reducing unemployment. One of the most important factors affecting income level is education. When analyzed in terms of the quality of education, Turkey lags behind many countries. It is known that high-income countries have made all these reforms rapidly for sustainable growth and development.

To summarize, in order to get rid of MIT, the following suggestions can be made:

- Priority needs to be given to investments in education and to provide a free environment for educational institutions to reach contemporary and scientific levels. In our opinion, education is one of the investment areas which a country should not economize.
- Arrangements should be made in favor of labor power in the sharing of value added between the labor power and capital in order to increase the desire for work. The capital should be taxed and this practice should be followed in a correct and patient manner.
- In the organization of production, the sectors with high added value should be emphasized and these sectors should be strengthened with realistic and accurate incentives prepared by the state. A plan that does not create social problems should be prepared for the elimination of inefficient, competitively lost business lines and the use of national resources in the right areas should be ensured.

- A separate plan and program should be prepared for technology production, and domestic technology products should be used while making fixed capital investments of high value added businesses. As this aim cannot be achieved in the short run, medium and long term plans should be made and patiently implemented

- All these issues should be understood as a country problem and implemented with national awareness and unity that is far from politics. One of the secrets of countries such as China and South Korea, which succeeded in this matter in a very short period of time, is the ability to create national awareness and the correct investments they made in education.

- Population growth should be carefully controlled.

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