MIDDLE INCOME TRAP: CASE OF TURKEY

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Abstract

The concept of middle income trap is a notable issue in terms of economies especially for countries which are in middle income economy group. Some dynamics make countries remain at middle income level for a long period. Observation of slower growth rates in Turkey compared to previous years notably after the 2008 crisis created concerns about Turkey whether the country is in the middle income trap.

In the framework of information above, the purpose of this study is to help to uncover the question whether the economy of Turkey is in middle income trap. In this context - dynamics that are evaluated as signs of middle income trap will be observed and interpreted to determine the issue and various studies reflecting different results will be examined.

Key words: *middle income, Turkey*

1. INTRODUCTION

Middle income trap concept has been brought to the literature of economics by the report published by the World Bank in 2007. The report highlights that East Asian middle income countries witnessed significant rates of economic growth. But as it is observed in Latin America and Middle East countries; same policies based on factor accumulation will cause worse results. Because marginal productivity of capital will decline. So a strategy change is a must for a country that belongs to middle income group. Three transformations are expected to happen in middle income countries to reach the level of high income country group. First diversification of production will slow and increase afterwards due to specialization in production and employment, innovation capacity is expected to be higher than investment capacity in the economy and education system is redesigned to increase the ability of the country producing new products or production processes. These are the factors that help countries not to get stuck in middle income level.

Turkey is in the upper middle income group with 9950 $ Gross National Income (GNI) level calculated by the World Bank. Turkey experienced a high growth performance since 2002 and reached to upper middle income level after almost 30 years. Following the global economic crisis a contraction observed in the economy as it was the case almost in all countries. After 2009 propensity of economic growth in Turkey has been started to fall down again. These improvements raised concerns about the middle income trap existence in Turkish economy. This paper initiates to make a general descriptive assessment about middle income trap case in Turkey with the help of existing literature and selected indicators.

In this context; part 2 is prepared to review selected studies about middle income trap existence and escaping from it. Part 3 explains the different approaches in determining middle income trap existence via secondary resources. Part 4 interrogates the existence of middle income trap existence in Turkey considering the developments in the economy in selected periods. Part 5 summarizes the conclusions and policy implications of the paper.

2. LITERATURE REVIEW

Middle income trap issue is a new research area in economics. In this part of the paper selected studies are reviewed in terms of methodology and conclusion.

Felipe, Abdon and Kumar (2012) review the historical data and create a formula reflecting the necessary duration to determine if a country is in the income trap or not. Based on the calculations of the author;

the necessary duration of existence in lower-middle income trap and upper middle income trap is 28 years and 14 years respectively. And Turkey was in lower middle income trap until 2005 and has been in upper middle income trap since 2005 considering the data obtained by the authors.

Gürsel and Soybilgen (2013) research the components of GDP increases in Turkey in terms of employment rate and labor productivity using quarterly data of 2005-2013 period. Authors conclude that labor productivity in Turkey has been decreasing and almost stopped. This situation is the main prove that Turkey is at the threshold of middle income trap.

Agenor and Canuto (2015) questions the possible solutions of production restrictions which lead to middle income trap issue. Authors highlight that access to advanced infrastructure as a public policy will be more effective in escaping from middle income trap rather than innovation subsidies financed by government. Another implication of the paper is about labor distortions. Misallocation of talent is another reason of middle income trap existence.

Alçın and Güner (2015) indicate that Turkey was in low-middle income group in 1955-2005 years and has been in upper-middle income group since 2005. Turkey takes the third place after Bulgaria and Costa Rica in terms of duration in middle income group. Authors give some suggestions for Turkey to reach high income level such as factor productivity increase, added value increase in service sector, nationalization of investments, increasing innovativeness, etc.

Atalay (2015) accepts the interpretation that Turkey is in the middle income trap. The author compares data concerning the research and development, share of technology in exports and human capital index of Turkey, Japan, and South Korea and concludes that human capital investment is the key to get rid of the trap. Increasing research and development, obtaining more patents and increasing the share of scientific publications are necessary measures. Employment of students while they are in education period will contribute to decrease human capital investment costs.

Eryılmaz and Eryılmaz (2015) make a general assessment of middle income trap issue and investigate the policy implications suggested in the literature. Authors highlight the importance of government incentives on large scale firms for research and development. The paper suggests an overcoming strategy from the trap. The strategy covers research and development incentives, government support and changing in competitive strategy of large scale firms.

Huang (2015) investigates if China can continue to achieve rapid growth rates and jump into high income group countries. Author suggest that necessary reforms are needed for China to exit from middle income group such as improvement in the education and research ability, liberalization of financial system and existence of a more transparent political system.

Lee and Narjoko (2015) reviews the studies based on microdata concerning productivity, globalization and innovation in South East Asia region. Authors indicate that globalization of trade and foreign direct investment is crucial to escape from middle income trap. Government supports are notably should be directed to not only exporters but also potential exporters including small and medium enterprises (SMEs).

Cetinkaya (2016) reviews economic structure of Turkey and researches if there is a middle income trap danger for Turkey using 1960-2015 GDP per capita data. The author evaluates two criteria to determine whether Turkey is in the middle income trap and indicates that the necessary duration which is 14 years have not passed since Turkey has been in middle income group so Turkey is not in the middle income trap. Author considers 2001-2002 crisis years of Turkey interpreting the income trap occurrence.

Dabus, Tohme and Caraballo (2016) investigate the economy of Argentina using a modified general equilibrium model for the period of 1870-1960. In the framework of Argentinean case, authors conclude that decreasing returns of production, high dependence on agricultural products may lead a country to fall in trap. Countries where achieved technological development and started to export mostly industrial products rather than agricultural products escaped from the trap in South East Asia.

3. CONCEPT OF MIDDLE INCOME TRAP

As a very brief definition, middle income trap concept means the countries that transformed into middle income economies from low income economies by achieving high economic growth rates in the past but could not transfer from this group to high income economy group conversely due to low economic growth rates achieved after the middle income group achievement. Several propositions have been suggested to explain the existence of middle income trap and overcoming from it. Study prepared by Eichengreen *et.al.* (2013) observe a growth slowdown in countries that are in middle income group which have 10000-11000 GDP per capita and 15000-16000 GDP per capita. Authors explain the growth slowdowns observed in these countries due to decreases in total factor productivity. Another calculation to investigate the existence of middle income trap is described by Felipe *et.al.* (2012). Based on the calculations, the country is in the middle income trap if the duration of that country taking place in lower middle income group is more than 28 years and taking place in upper-middle income group is more than 14 years. For countries that are in lower income group, 4.7% growth rate on average is necessary to avoid from the trap. Average growth rate for countries in upper middle income group to avoid from the trap is 3.5%. Some economists of middle income countries highlight that there are structural reasons behind getting stuck in middle income group. Another reason is the hassles that middle income countries have to struggle with. One of them is competing with low wages of low income countries and second of them is technological advantages of high income countries. Middle income countries cannot compete with low wages due to increased wages in them because of increased income and these countries do not have the necessary innovation system to compete with the countries belong high income group (Luiz, 2016:4-5).

The interpretation above regarding the reasons why middle income countries are assessed in such a trap is firstly declared in the report published by the World Bank titled as "An East Asian Renaissance: Ideas for Economic Growth" at 2007. It is suggested for middle income countries that experience slower economic growth compared to more reach or poorer countries to do something different in their economy. In some papers reasons to be in middle income trap is investigated behind the stages of economic growth through economic growth convergence hypothesis. Factors that support economic growth investment ratio, human capital accumulation, government policies and infrastructure conditions have substantial contributions of a country's economic growth at the early stages of economic development, when the income is lower. As economy develops contribution of mentioned factors in economic growth process start to decrease. Diminishing marginal productivity of capital forces middle income countries to implement different policies to increase their income anymore. These different policies are government policies reflecting that support of the economy transform into a structure of knowledge-intensive production from commodity production structure and correction of income distribution. Worsening income distribution is an obstacle for China, Malaysia and India to achieve faster growth rates (Ozturk, 2016:728-729; Schneider, 2013: 169-170).

Other criteria in the literature to understand if a country is in the middle income trap or not is the calculation of GDP per capita based on purchasing power parity (PPP) and estimate the data to the GDP Per Capita of the US. If GDP per capita of a country is between 8%-36% of GDP per capita of the US based on PPPs, the country is assessed as in middle income trap (Alçın & Güner, 2015:29).

Table 1. Classification of Countries Regarding World Bank Atlas Method

	GNI Per Capita	Number of Countries
Low-Income Economies	Below 1025$	31
Lower Middle Income Economies	1026-4035	52
Upper Middle Income Economies	4036-12475	55
High Income Economies	12476$ or more	79

Source: https://datahelpdesk.worldbank.org/

Table 1 illustrates the income classification determined by the World Bank using Gross National Income (GNI) atlas method. 107 countries are in middle income group. Turkey is in the upper middle income economies. World Bank report published in 2013 indicates that there were 101 middle income economies in 1960 and only 13 of them reached to high income economy groups by 2008.

Table 2. Major Countries Reached Upper Middle Income Level in 1962-2012

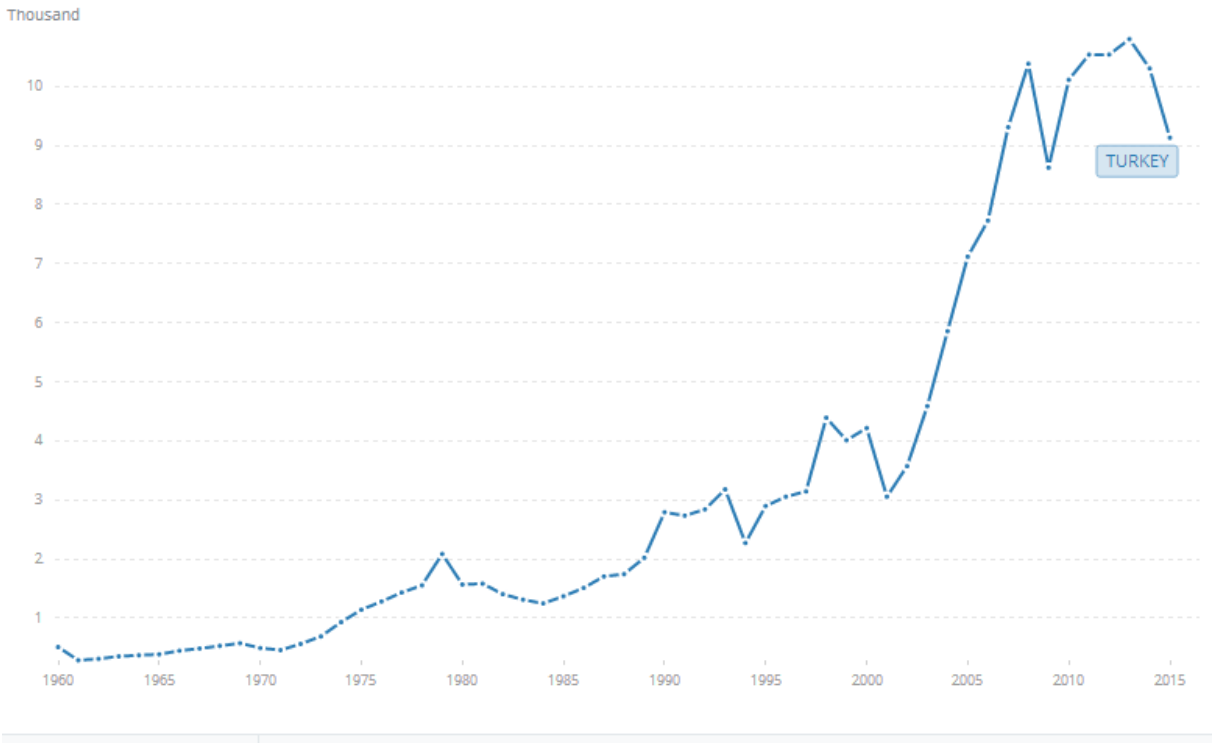
	Number of Years Participated as a Low Income Country	GDP Per Capita Growth As a Low Income Country	Year Became Lower Middle Income Country	GDP Per Capita Growth As a Lower Middle Income Country	Year Became Upper Middle Income Country	GDP Per Capita Growt As an Upper Middle Income Country	GDP Per Capita Growth on Average (1962-2012)
Botswana	19	13.43	1981	4.8	2004	7.43	8.38
Brasil	13	11.03	1975	3.84	2006	14.13	7
China	40	6.33	2002	14.81	2010	13.94	10.11
Ecuador	13	10.18	1975	3.87	2010	7.91	5.62
Costa Rica	14	7.34	1976	4.34	2003	7.71	6.74
Colombia	17	6.5	1979	4.51	2007	11.15	5.1
North Africa	11	7.11	1973	3.71	2005	8.52	5.16
Malaysia	16	7.58	1978	4.63	2003	9.08	6.4
Mexico	12	8.46	1974	4.58	1999	6.24	5.9
Peru	29	2.52	1991	8.23	2009	9.23	5.11
Thailand	26	8.1	1988	5.64	2010	9.49	7.1
Tunisia	17	8.55	1979	4.39	2009	1.56	5.43
Turkey	13	7.84	1975	4.43	2004	10.57	6.19

Source: Yaşar & Gezer, 2014:134

4. IS TURKEY IN MIDDLE INCOME TRAP?

Concerns about Turkish economy regarding the middle income trap case have been on debate due to slower growth rates compared to previous years after the contraction of 2008 global economic crisis.

Figure 1. GDP Per Capita in Turkey, Current US Dollars



Source: http://data.worldbank.org/

Figure 1 illustrates the trend of GDP per capita in Turkey. 2001-2008 periods are the most brilliant period for Turkey. But it is not possible to say the same thing for the last three years, namely 2013-2015. Regardless of the contraction in 2009 due to the global crisis, economy of Turkey experienced a slower growth rates in 2010-2013 years and this propensity became contraction after 2013, decreasing the GDP per capita at 9130 $. 2002-2008 performance in GDP per capita is the result of high investments, relatively high increases in non-agricultural employment and relatively high increases in productivity. Additionally, high appreciation of Turkish liras against dollar contributed to GDP per capita to rise. In recent years it is not possible for Turkish liras to appreciate against US dollar because of drawing back the liquids from the market and high current deficit of the Turkish economy (Gürsel & Soybilgen, 2013:2).

Table 3. Duration of Turkey in Different Income Levels

	GNI Per Capita	**Turkey's Position According to Latest Classification**
Low-Income Economies	Below 1025$	1967-1974
Lower Middle Income Economies	1026-4035	1975-2004
Upper Middle Income Economies	4036-12475	2005-
High Income Economies	12476$ or more	-

Source: http://data.worldbank.org/

Table 3 reveals that how many years of Turkey stayed in different stages of income classification regarding the latest GNI data obtained from the World Bank. In terms of GNI per capita Turkey was in lower middle income group for 29 years. This situation means that Turkey was in lower-middle income trap as well based on the calculations of Felipe *et.al.* (2012).

Table 4. GNI Trend in Turkey

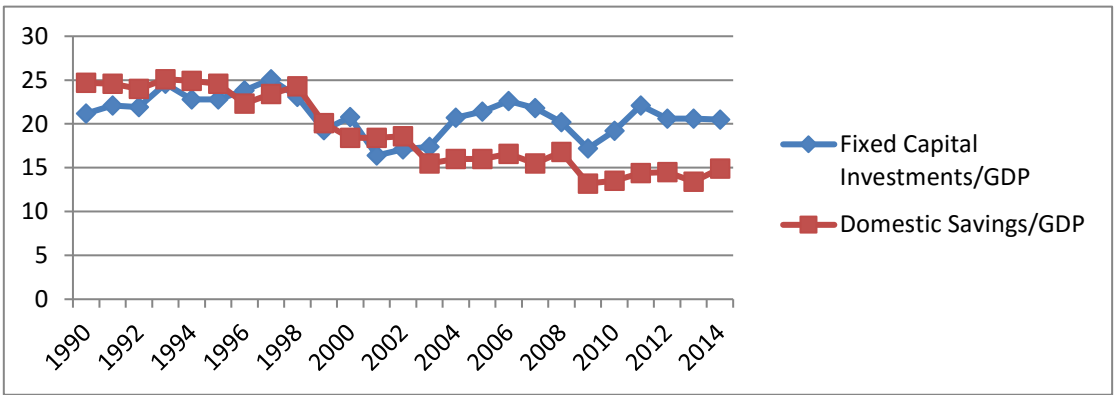
Year	**GNI Per Capita**	**Change compared to previous year**
1967	470	-
1975	1120	138.30
1985	1310	16.96
1995	2850	117.56
2005	6510	128.42
2006	7520	15.51
2007	8510	13.16
2008	9350	9.87
2009	9140	-2.25
2010	9960	8.97
2011	10450	4.92
2012	10700	2.39
2013	10800	0.93
2014	10630	-1.57
2015	9950	-6.40

Source: http://data.worldbank.org/

Because classification of income groups introduced by the World Bank is based on GNI, it is worth to observe the GNI trend of Turkey. Table 4 indicates that there is a growing slowdown in GNI performance of Turkey beginning from 2010, which can be evaluated as a different sign of middle income trap. The last two years are striking because slow growth performance transformed into shrinking. These last two years are the years which employment productivity has stopped according to (Gürsel & Soybilgen, 2013).

Cetinkaya (2016) identifies 4 criteria as indicators of falling into middle income trap; increasing gap of investment and savings, slowing of development in manufacturing industry, stopping the diversification in industry and weakening of working conditions in labor market. All of them or some of them is observed in a country which is in middle income trap.

Figure 2. Investment/Savings Gap in Turkey (1990-2014)



Source: Alagöz & Ceylan, 2015:228

Figure 2 indicates the investment/savings gap in Turkey as an indicator of middle income trap existence. The trend illustrates that there are two periods the gap is widen. The first period is 2002-2009 period and the second period is 2010-2014. The second period is remarkable because this period also reflects the GNI per capita and GDP per capita reductions as observed in Table 4 and Figure 1 previously. According to the data in Alagöz and Ceylan (2015), there is a sharp increase at the ratio of domestic savings to the GDP. This sharp decrease widens the gap between savings and investment.

Another indicator described above is the slowing development of manufacturing industry. A report prepared by Mckinsey Global Institute about manufacturing in the world indicates that Turkey has worsened in terms of global nominal manufacturing value added. In1990 Turkey was in top 15 countries ranking 13th place in the world, in 2000 Turkey was in the 15th place and in 2010 Turkey was no longer among top 15 countries regarding the mentioned ratio.

Turkey has reached an acceptable position in terms of industry diversification. Even though the country is not in top 15 countries according to the McKinsey report; Turkey is a country that has a potential to produce a wide variation of products notably compared to previous years. The issue of labor market is controversial. The main problem of the market is the inelastic structure and a significant defense exits to protect the current situation (Eğilmez, 2012).

5. CONCLUSION

Turkey is a country that was in lower middle income group for 50 years since 1955 and has been in middle income group for almost 11 years. In other words; Turkey is at middle income level approximately for 60 years. There are different approaches in the literature to determine whether middle income trap exists in the economy. Turkey was in lower middle income trap according to the results of paper prepared by Felipe *et.al.* (2012) and Yaşar & Gezer (2014). Regardless of the global and national

crises Turkey faced the economy has nearly completed the necessary duration to be assumed as middle income trap, which is 14 years. On the other hand; there is no developments in Turkish economy regarding the stages explained in Gill & Kharas (2007), namely the first report of the World Bank that middle income trap concept is examined. Furthermore, three of four indicators to observe the middle income existence reveal the strong possibility of trap occurrence. So the conclusions require taking of sudden measures or reforms to make Turkish economy reach to high income level of countries.

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