Chapter 11

# Comparative Analysis of Macroeconomic Performance in the Case of E7 Countries ⊃

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**Abstract**

Macroeconomic indicators are generally used to analyze and evaluate the general economic performance of a country. The macroeconomic indicators in question include GDP, GDP per capita, unemployment rates, inflation rates, interest rates, etc. In this context, the main objective of this study is to examine the macroeconomic performance of seven emerging countries (E7), that is, Brazil, China, India, Indonesia, Mexico, Russia, and Turkey, and to reveal the macroeconomic situation of these countries, thereby contribute to the relevant literature. For this purpose, selected macroeconomic indicators were used in the study, and the macroeconomic performance was analyzed comparatively with the help of table and graphs. As a result of the study, in the light of the data, it can be said that China is the country that shows the best performance among the other E7 countries, while Turkey is the country with the lowest macroeconomic performance compared to other E7 countries.

## 1. INTRODUCTION

Macroeconomic indicators provide information about the general economic situation of a country. The indicators in question include economic growth, GDP per capita, employment rates, unemployment rates, inflation rates, interest rates, foreign trade balance, current account balance, etc. These indicators provide an overall analysis of a country's economic performance.

Macroeconomic instability negatively affects society. For example, if the macroeconomy is unstable, economic growth will be affected negatively and the environment of trust will be shaken. Investments, which are an important driver of economic growth will decrease, thus creating a negative impact on

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new employment opportunities that investments can create. To give another example, if inflation rates are high, the purchasing power of individuals will decrease, thereby negatively affecting the country's economy. Therefore, macroeconomic stability is important for the sustainable development, economic development and social welfare of a country.

The main goal of policy makers is to establish a strong economic structure with economic stability. These basic objectives are to increase output by expanding production volume, reduce unemployment by creating new employment areas, and ensure price stability, current balance and public income-expenditure balance by preventing price fluctuations. The success of these goals is reflected in the economic performance level of the countries (Koşaroğlu, 2021: 204). For this reason, countries need to see the gaps in their development policy making and determine the reasons behind the periods in which they exhibit low economic performance. Interpretation of macroeconomic variables is significant in determining the economic structure and determining the strengths or weaknesses of the macroeconomic policies followed (Ekinci Hamamcı and Şahinoğlu, 2020: 729). As a matter of fact, the macroeconomic performance of countries reflects how successful the policies they implement and the targets they set have been met (Orhan and Göçeri, 2019: 169).

The aim of this study is to evaluate the macroeconomic performance of seven emerging countries (E7) with selected macroeconomic indicators and to reveal the macroeconomic situation of these countries in general. Although there are studies examining the macroeconomic performance of different countries or country groups in the literature, not many studies have been found evaluating the macroeconomic performance for the E7 countries. Therefore, this study aims to fill this gap in the literature. Besides, this study is considered to be important in terms of identifying and presenting the macroeconomic performances of the E7 countries in order to provide ideas for policies that can be implemented. However, the fact that each country has different historical, structural and economic characteristics should be taken into account. In this context, the literature review will be included in the section following the introduction. Then, the macroeconomic performance of the E7 countries will be evaluated with the help of table and graphs. The study will be concluded with a conclusion and general evaluation.

## 2. LITERATURE REVIEW

In the economic literature, the macroeconomic performance of different countries or country groups has been evaluated and compared. However,

there are not many studies conducted for E7 countries. This section includes some studies evaluating the macroeconomic performance of countries.

Güran and Tosun (2005) investigated the macroeconomic performance of Turkey for the period 1951-2003 using data envelopment analysis. According to the results obtained, it was concluded that Turkey's macroeconomic performance generally decreased and that macroeconomic performance had an unstable structure, especially after 1980. It has also been stated that the years with the worst macroeconomic performance were the crisis years. In their study investigating the macroeconomic performance of BRICS countries and Turkey, Ağır and Yıldırım (2015) concluded that Turkey performed worse than other countries. Benlialper et al. (2015) examined Turkey's economic performance by comparing Turkey with similar country groups and countries taking into account the period between 2002 and 2014. According to the results obtained, the relative performance of the Turkish economy is either close to the average or below the average in all periods and sub-periods except for one or two variables. It was also concluded that Turkey is one of the most fragile country among the countries considered. It was stated that during the period under consideration, Turkey was among the countries with the lowest relative performance and that Turkey did not have particular success in basic macroeconomic indicators. Koşaroğlu (2021) compared the macroeconomic performances of E7 countries using ENTROPY and ARAS methods. The study covers the period 2010-2019. According to the weight coefficients obtained from the ENTROPY method, the current account deficit was found to be the most effective criterion on macroeconomic performance. The findings obtained from the ARAS method showed that the country with the best economic performance is China, while the country with the lowest economic performance is Brazil. Nalçakan (2022) examined the macroeconomic situation of Turkey during the COVID-19 pandemic. According to the results, it was concluded that macroeconomic data deteriorated. Yöyen (2023) revealed the macroeconomic performance of the Turkish economy for the period 2003-2022. For this purpose, Turkey's macroeconomic performance index was calculated using economic growth, inflation, unemployment, current account balance and budget balance data. According to the findings, while Turkey is not in a bad position in unemployment and current account deficit variables compared to the past two decades, the country has shown a poor performance in economic growth, inflation and budget deficit variables. As a result of the calculated macroeconomic performance index, it was concluded that the last five years of the Turkish economy have been the worst five-year period in the last two decades. At the same time, Turkey's macroeconomic performance,

which was compared with other countries from around the world was found to have not performed successfully compared to these countries; and it was concluded that Turkey has a negative economic outlook in its 100th year.

## 3. MACROECONOMIC PERFORMANCE OF E7 COUNTRIES

Emerging Seven (E7) countries, consisting of Brazil, China, India, Indonesia, Mexico, Russia, and Turkey are countries with a high rate of development (Yavuz Tiftikçigil et al., 2018). Hence, it is considered important to evaluate the macroeconomic performance of these countries. In this context, in this section, the macroeconomic performance of E7 countries with selected macroeconomic indicators is evaluated with the help of table and graphs.

*Table 1: Total Population of E7 Countries, 2023*

| Country | Total Population | Population Growth Rate (%) | Urban Population (% of Total Population) | Rural Population (% of Total Population) |
|---|---|---|---|---|
| Brazil | 216.422.446 | 0,51 | 87,79 | 12,21 |
| China | 1.410.710.000 | -0,10 | 64,57 | 35,43 |
| India | 1.428.627.663 | 0,81 | 36,36 | 63,64 |
| Indonesia | 277.534.122 | 0,74 | 58,57 | 41,43 |
| Mexico | 128.455.567 | 0,74 | 81,58 | 18,42 |
| Russia | 143.826.130 | -0,29 | 75,33 | 24,67 |
| Turkey | 85.326.000 | 0,41 | 77,46 | 22,54 |

*Source: World Bank, https://data.worldbank.org (Accessed: 07.09.2024).*

Population is the number of people living in a particular region or country at a particular time. The size and structure of a population are significant in many issues such as the development of countries, economic growth, the distribution of national income and the increase of welfare (Tıraş et al., 2023: 3312). Table 1 shows the total population of E7 countries for 2023. When the table is examined, the most populous country among the E7 countries in 2023 is India, while the country with the least population is Turkey. The population growth rate was highest in India. India was followed by Indonesia and Mexico. Russia and China are the countries with the lowest population growth rates in 2023. Most of the E7 countries, except India, and more than 50% of them live in urban areas.

*Graph 1: Economic Growth Rates (GDP) of E7 Countries*
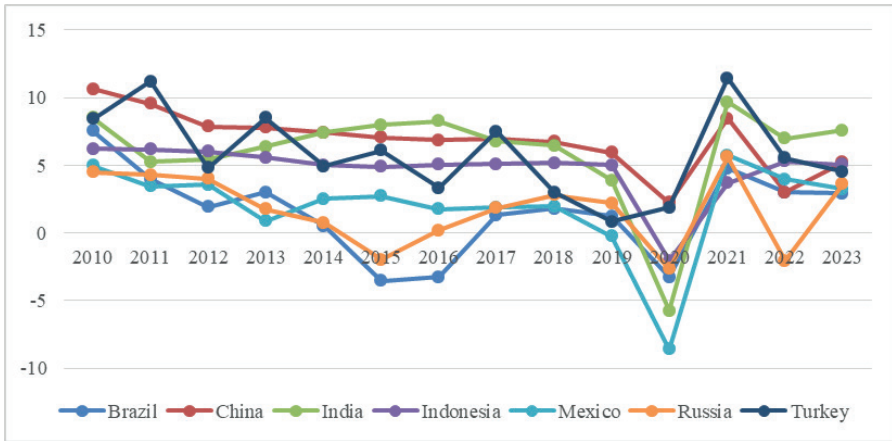


*Source: World Bank, https://data.worldbank.org (Accessed: 06.09.2024).*

When evaluating a country's economic performance and making comparisons with other countries, economic growth rates are usually taken as a basis. The main goal of countries is to achieve economic growth. Economic growth, which is a quantitative change, can be expressed as the real increase in production and per capita income (Taban and Kar, 2014: 4). Graph 1 shows the growth rates of E7 countries between 2010 and 2023. When the growth rates of the E7 countries are examined, it is seen that there is generally a fluctuating trend. In 2020, all E7 countries except China and Turkey experienced negative growth. This situation can be attributed to the COVID-19 pandemic. There has been a decline in the growth rates of all E7 countries from 2010 to 2023. While India and China showed the best performance in terms of growth rates in 2023, Brazil and Mexico were the countries with the lowest growth rates. Turkey has been observed to be the country with the fourth highest growth rate among the E7 countries.

*Graph 2: GDP Per Capita of E7 Countries (Constant 2015 US$)*
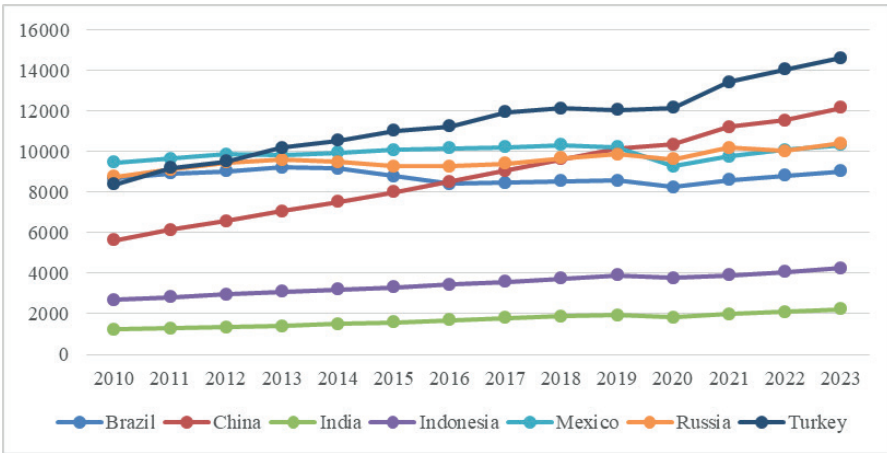


*Source: World Bank, https://data.worldbank.org (Accessed: 06.09.2024).*

Although not sufficient on its own, GDP per capita is often used as an indicator of a country's standard of living. Graph 2 shows the GDP per capita values of E7 countries for the years from 2010 to 2023. According to the information in the graph, there is an increase in the GDP per capita of all E7 countries during the period considered. As of 2023, the country with the highest GDP per capita is Turkey. Turkey is followed by China. On the other hand, India and Indonesia are seen to be the countries with the lowest GDP per capita, respectively.

*Graph 3: Unemployment Rates of E7 Countries*
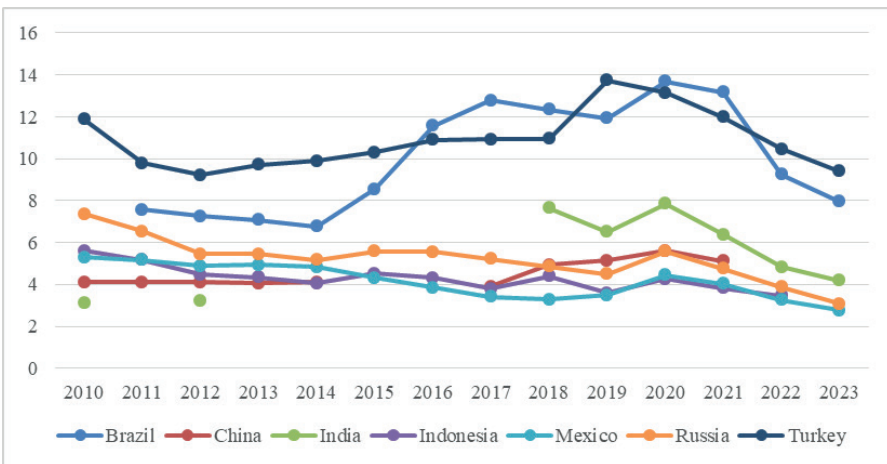


*Source: World Bank, https://data.worldbank.org (Accessed: 06.09.2024).*

According to ILO, a person is considered unemployed if the person is not working, currently available for work and seeking work (Byrne and Strobl, 2001). Unemployment is the situation where people who want to work but cannot find a job. The phenomenon of unemployment, which is a serious macroeconomic problem that directly affects individuals, brings with it many problems, including economic, social and psychological. Because job loss not only reduces the standard of living of individuals, but also creates uncertainty and insecurity about the future, which negatively affects the individuals.

Although the data for Brazil, China, India and Indonesia are not complete, graph 3 shows the unemployment rates of the E7 countries for the period 2010-2023. When the graph is examined, Turkey is the country with the highest unemployment rates among E7 countries, except for the periods 2016-2018 and 2020-2021. It is seen that Brazil is the country with the highest unemployment rates in 2016-2018 and 2020-2021 periods. In contrast, the country with the lowest unemployment rates in 2023 was Mexico.

*Graph 4: Inflation Rates of E7 Countries*
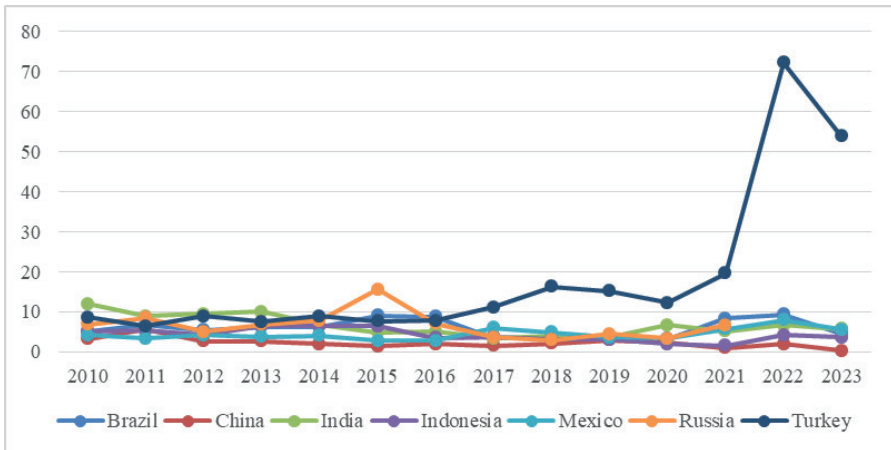


*Source: World Bank, https://data.worldbank.org (Accessed: 06.09.2024).*

Inflation can be defined as the continuous increase in the general level of prices of goods and services in an economy. A country's high inflation rate affects society both economically and socially. As a matter of fact, high inflation rates reduces the purchasing power of individuals and lead to deterioration of income distribution. In this connection, the inflation rates of E7 countries for the period 2010-2023 are given in graph 4. While China

was the country with the lowest inflation rates in the aforementioned period, Turkey has been the country with the highest inflation rates, especially since 2017.

*Graph 5: Misery Index of E7 Countries*
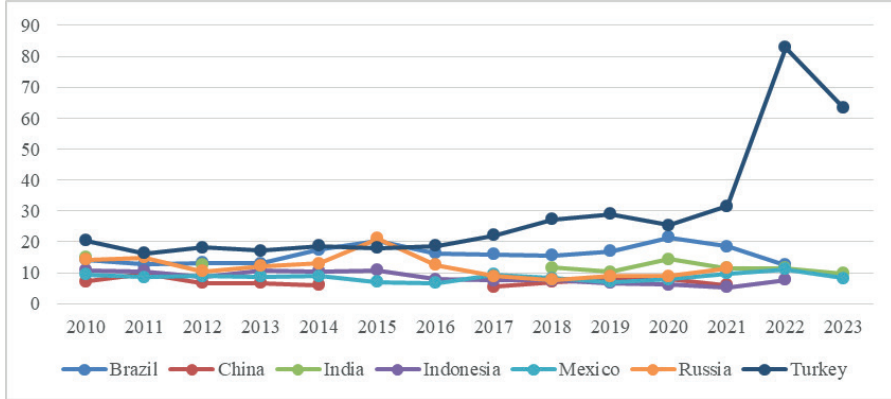


*Source: Calculated by the author.*

The misery index is widely used to measure the macroeconomic performance of a country. The misery index was created by Arthur Okun and later developed by Barro and Hanke. In this study, the Okun Misery Index, which was developed by Okun in the 1970s and obtained by adding the unemployment and inflation rates is calculated. Within this framework, the misery index values of E7 countries between 2010 and 2023 are shown in graph 5. When the graph is evaluated in general, it is seen that while the other E7 countries except Turkey follow a more horizontal course, Turkey's misery index value is higher than the other E7 countries and it exhibits the worst performance in this regards. The reason why Turkey has high values in the index is due to both high unemployment and inflation rates.

*Graph 6: Interest Rates of E7 Countries*
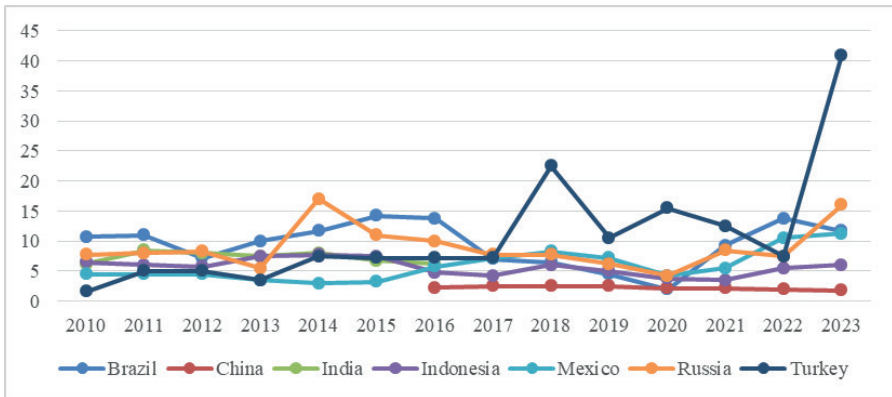
Graph 6 shows the interest rates of E7 countries between 2010-2023. While the country with the highest interest rate in 2010 was Brazil, the country with the lowest interest rate was Turkey. In 2023, it was observed that China was the country with the lowest interest rate, while Turkey had the highest interest rate, and there was a big difference compared to other E7 countries.

*Graph 7: Current Account Balance of E7 Countries (% of GDP)*
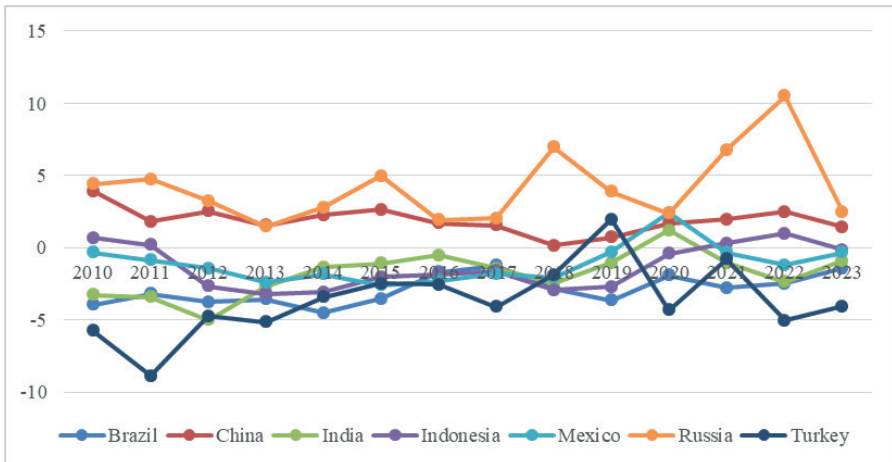
The current account balance, one of the important indicators of macroeconomic performance, is a record of a country's international transactions with the rest of the world (OECD, 2024). Graph 7 shows the current account balance values of E7 countries for the years 2010-2023. The current account balance in E7 countries follows a fluctuating course. When the graph is evaluated in general, Russia and China were the two countries with a current account surplus in the period in question. It has been observed that Turkey is the country with the largest current account deficit among the E7 countries with its current account deficit between the periods considered in general.

*Graph 8: External Debt Stocks of E7 Countries (% of GNI)*
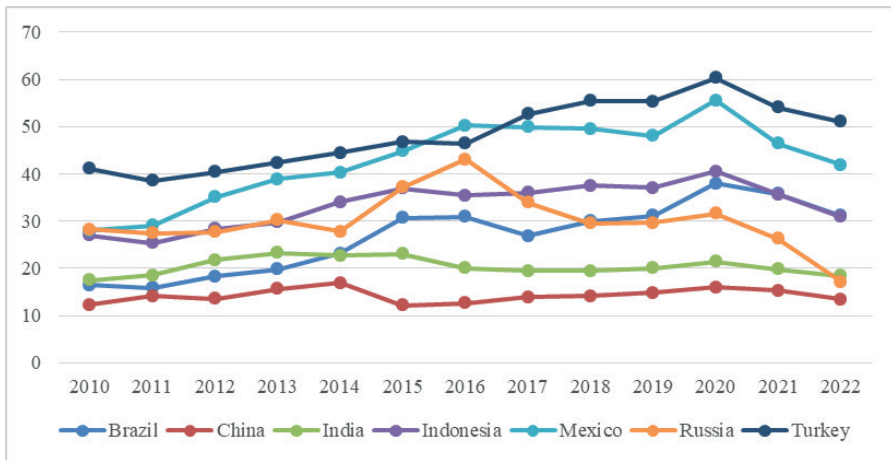


*Source: World Bank, https://data.worldbank.org (Accessed: 07.09.2024).*

Graph 8 shows the external debt stocks of E7 countries for the years 2010-2022. The graph shows that the external debt stock of other E7 countries, except Russia, increased from 2010 to 2022. When the graph is evaluated, while China is the country with the lowest external debt stock both at the beginning and at the end of the period under consideration, Turkey has the highest external debt stock by years except for 2016.

*Graph 9: Savings of E7 Countries (% of GDP)*
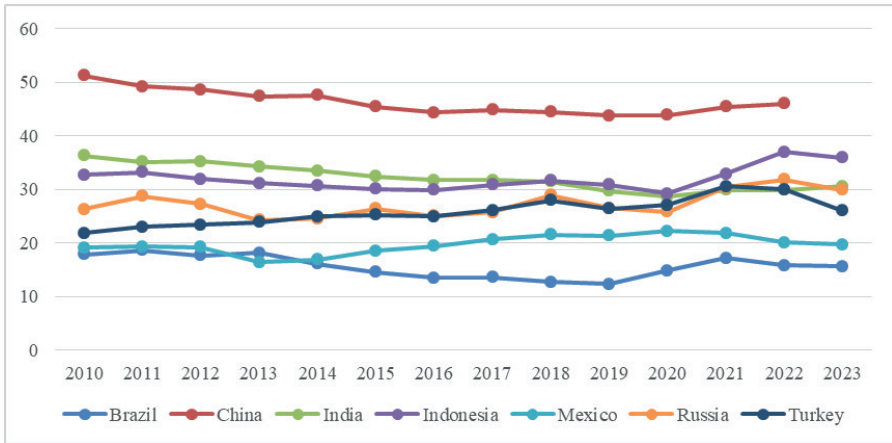
Savings are important to be able to transform them into investment in an economy. Graph 9 shows the savings of E7 countries from 2010 to 2023. Due to data availability, China's data is up to 2022. As can be seen in the graph, China has the highest savings rates. Conversely, savings rates in Brazil and Mexico are observed to be lower than those of other E7 countries.

*Graph 10: Foreign Direct Investment Inflows of E7 Countries (% of GDP)*
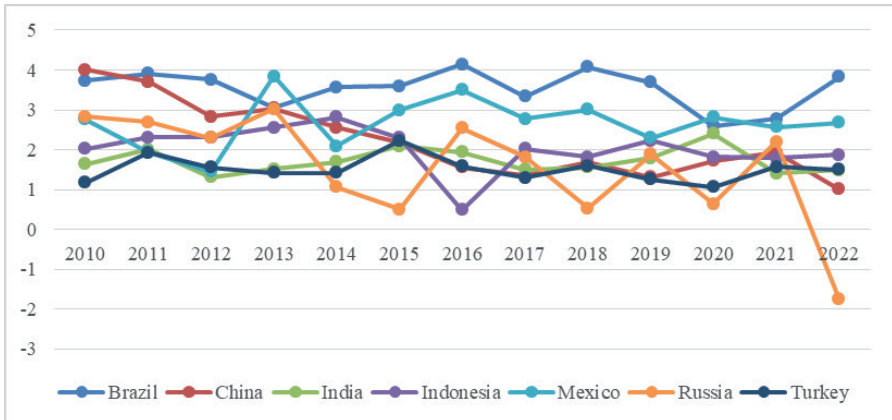
Foreign direct investment, which has a positive influence on production, employment and economic growth can be expressed as the establishment

of a new company in foreign countries, either alone or with partners, by expanding the production of a company outside the borders of the country where the main center is located (Kurtaran, 2007: 367). Foreign direct investments of E7 countries between 2010 and 2023 are shown in graph 10. In the light of the information in the graph, it is seen that there is a fluctuating trend in foreign direct investment inflows of E7 countries. However, the country with the highest ratio of foreign direct investment to GDP in 2010 was China with 4%, while the country with the lowest ratio of foreign direct investment to GDP was Turkey with 1.17%. Looking at 2023, Brazil is the country that attracted the highest rate of foreign direct investment with 3.82%, while Russia had a negative value (-1.76%).

*Graph 11: Foreign Trade Balance of E7 Countries (% of GDP)*
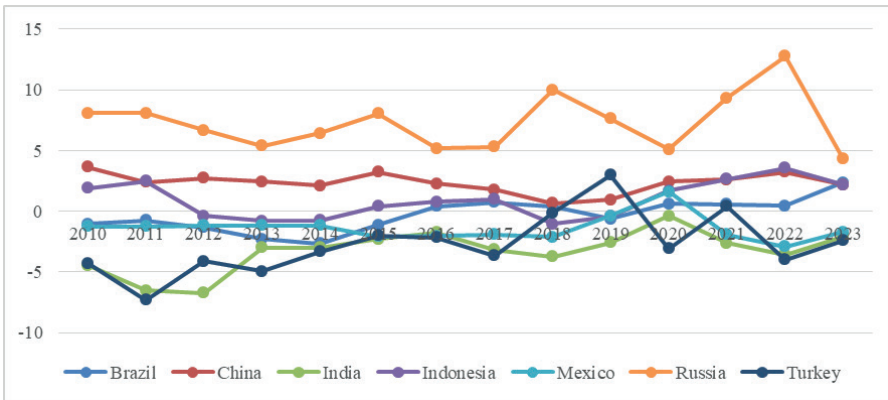


*Source: World Bank, https://data.worldbank.org (Accessed: 06.09.2024). Calculated by the author using export and import data.*

Imports are goods and services purchased from other countries, while exports are the sale of goods and services produced within the country to other countries. The difference between exports and imports is the foreign trade balance. If exports exceed imports, the country has a trade surplus, and if imports exceed exports, the country has a trade deficit. A country's trade surplus contributes positively to the country's economic growth. The foreign trade of E7 countries is given in graph 11. Accordingly, only Russia and China have always had a foreign trade surplus among the E7 countries throughout the period under consideration. Although the foreign trade of other countries varies, it has been observed that the countries with the largest foreign trade deficit are Turkey and India.

## CONCLUSION

In this study, the macroeconomic performance of Brazil, China, India, Indonesia, Mexico, Russia and Turkey, which are called emerging seven (E7) was evaluated. When China's macroeconomic performance is examined in the light of the information obtained from the data, the country can be evaluated as the country that generally shows the best performance in terms of macroeconomic performance among the E7 countries. China, which has the highest growth rates among E7 countries after India, has also shown good performance in terms of GDP per capita. China has the lowest interest rates among the E7 countries. However, China, which has the lowest inflation rate, also has low values in terms of the misery index. China has a current account surplus and is also the country with the lowest external debt stock compared to other E7 countries. Moreover, it is the country with the highest savings rate among the E7 countries and has consistently had a trade surplus as of the period covered. It can be said that China showed the lowest performance in foreign direct investments. Because China was the country that attracted the least foreign direct investment after Russia in 2022.

When India's macroeconomic performance is examined, despite having the highest growth rates, India has not been able to show the same successful performance in GDP per capita. As a matter of fact, India's GDP per capita is the lowest among the E7 countries. India's unemployment rates have been seen to increase from 2010 to 2023, and in 2023, India became the third country with the highest unemployment rates after Turkey and Brazil. India, which managed to reduce inflation rates from double digits in 2010 to single digits in 2023, is still the country with the highest inflation rates among the E7 countries after Turkey. Although the country has improved in terms of misery index by years, it became the country with the highest misery index after Turkey and Brazil in 2023. The interest rate figures for India which is up until 2016 show that the interest rates were the same as at the beginning of the period. India has always had a deficit in its current account balance except for 2020. Although its external debt stock has increased from 2010 to 2023, it is a country with less external debt stock than other E7 countries. There was a decrease in savings from the beginning of the period to the end of the period under consideration. When foreign direct investments are examined, there has been a decrease from 2010 to 2023, and in 2023 it became the fifth country that attracted the most foreign direct investments among the E7 countries.

Considering Indonesia's macroeconomic performance, Indonesia, which had the third highest growth rates among E7 countries in 2023, has not

been able to show the same performance in GDP per capita, although its growth rates have increased by years. In fact, Indonesia has the lowest GDP per capita after India. In terms of current account balance, Indonesia had a deficit in 2023 and its external debt stock increased from 2010 to 2023; at the end of the period, it became the country with the third highest external debt stock. Although data is not complete, Indonesia has seen a decrease in unemployment rates and also a decrease in inflation rates. Thus, Indonesia has the lowest misery index among the E7 countries. Indonesia's interest rates have fallen from 2010 to 2023, making it the country with the lowest interest rates after China. It has become the country with the highest savings after China among the E7 countries. Despite there was a decrease in Indonesia's foreign direct investments between 2010 and 2023, it became the country that attracted the third highest foreign direct investment in 2023. At the same time, in 2023, it has become the country with the highest trade surplus after Russia and Brazil.

When Russia's macroeconomic performance is evaluated, it can be said that there has been a decline in growth rates and that it ranks fifth in growth rates among the E7 countries, but it has shown a more successful performance in GDP per capita. When unemployment rates are examined, it is seen that Russia's unemployment rates have decreased from 2010 to 2023 and that it became the country with the lowest unemployment rates after Mexico in 2023, while inflation rates have not changed much over the years. There was an increase in interest rates from 2010 to 2023 and at the end of the period it became the country with the second highest interest rates after Turkey. Russia is the country with the highest current account balance compared to other E7 countries and has consistently had a surplus. In terms of external debt stock, it is seen that there was a decrease from 2010 to 2022. When savings rates are examined, they decrased from 2010 to 2023. Russia, which shows the most successful performance in foreign trade, has attracted the least foreign direct investment among E7 countries.

When Mexico's macroeconomic performance is examined, there has been a decline in growth rates from 2010 to 2023, and it has shown the lowest performance after Brazil in 2023. Mexico, which ranks higher in GDP per capita, stands out with its successful performance, especially in unemployment rates. Because Mexico's unemployment rate is the lowest among E7 countries in 2023. However, it is the country with the third highest inflation rates. There has also been a rise in interest rates by years. When the current account balance and external debt stock are examined, it is seen that the country has a current account deficit and is the country with the highest external debt stock after Turkey. Although there has not been

much change by years, Mexico's savings are at the lowest level after Brazil. Mexico, which attracted the most foreign direct investment after Brazil in 2023, could not show a successful performance in foreign trade in the same year and had a trade deficit.

When Brazil's macroeconomic performance is examined, it is seen that the country has underperformed in many indicators. Brazil, which has the lowest growth rates among the E7 countries in 2023, does not rank high in GDP per capita either. Besides, it is the country with the highest unemployment rates after Turkey. There was a decrease in inflation rates from 2010 to 2023. However, Brazil has the highest misery index value after Turkey, in particular due to high unemployment rates. Interest rates also increased from 2010 to 2023. When the current account balance is examined, Brazil has always had a current account deficit by years; and in 2023, it is the country with the highest current account deficit after Turkey. Brazil's external debt stock increased from 2010 to 2023, and in 2023 it became the fourth country with the highest external debt stock. However, Brazil is the country with the lowest savings. On the other hand, Brazil has become the country that has attracted the most foreign direct investment. At the same time, there has been an improvement in the foreign trade balance by years and a trade surplus was achieved in 2023.

It can be said that Turkey's overall macroeconomic performance is the lowest when compared to other E7 countries. Despite Turkey's high growth rates and GDP per capita, unemployment rates remained high. In addition, Turkey has displayed a low performance compared to other E7 countries in terms of inflation, misery index, current account balance, external debt stock and foreign trade. It is very important for Turkey to improve these macroeconomic indicators.

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