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EFFECTS OF THE 2008 GLOBAL CRISIS ON THE TURKISH ECONOMY AND FISCAL POLICIES APPLIED TO PREVENT THE CRISIS

Supervisor: Chiara Dal Bianco, PhD

Candidate: Sinem Metin

ID Number: 2040065

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Firma dello studente

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INTRODUCTION

This thesis analyzes the repercussions of the 2008 global financial crisis on Turkey's economy and assesses the fiscal strategies employed to alleviate its effects.

Chapter 1 starts by discussing the concepts of financial crises and detailing the progression of crisis models, establishing the theoretical groundwork. It delves into various forms of financial crises, such as currency crises, banking crises, and debt crises, along with the systemic and real sector crises that may emerge. Furthermore, it offers a thorough examination of key crisis models, ranging from early-generation models that focus on fixed exchange rate systems to more intricate models designed to account for crises like the Asian Financial Crisis.

In Chapter 2, the dissertation investigates several historical financial crises from around the globe, including the Great Depression of 1929, the ERM crisis, and the crises in Mexico, Argentina, and Russia. This chapter seeks to provide context by exploring the root causes, policy measures, and consequences of these crises, with particular emphasis on the global crisis of 2008 that began in the U.S. and eventually affected economies across the world.

Chapter 3 explores fiscal policy as a mechanism for averting economic crises. This chapter examines the goals, tools, and strategic applications of fiscal policies, especially emphasizing discretionary fiscal measures and automatic stabilizers as key components in handling and alleviating economic instability.

Chapter 4 examines the distinct impact of the 2008 global crisis on Turkey's economy, along with the fiscal measures Turkey adopted in reaction. In this section, the discussion highlights how Turkey utilized public spending policies, tax reductions, and labour market assistance to mitigate the negative consequences of the crisis on growth, employment, and economic stability.

Finally, Chapter 5 evaluates the outcomes of these fiscal policies implemented from 2008 to 2017, focusing on their effects on important economic measures like budget balance, public spending, revenue generation, and debt levels. This chapter offers a thorough analysis of the results and provides perspectives on the effectiveness of Turkey's response to the crisis.

I. THE CONCEPT OF FINANCIAL CRISIS AND FINANCIAL CRISIS MODELS

1.1. Financial Crisis Concept

Most people define a crisis as the disruption of the status quo or an unforeseen adverse event. In the language of economics, a crisis is characterized as an interval after an era of economic expansion that can be either brief or extensive in nature. Stated differently, it is a phase of decline or inaction that comes after an era of expansion and wealth (Yilmaz et al., 2005).

These days, we hear the word "crisis" a lot in various scientific domains and in our daily conversations. The word "crisis," which derives from the Greek word "krisis," is commonly employed in literature to allude to ideas like turbulence, unhappiness, and rapid and deteriorating development (Aktan ve Sen, 2001).

A crisis typically develops suddenly, with little time for preventive measures, even in situations where there are some warning indicators. A crisis is indicated when random items, services, factors, or exchange rates exhibit prices or quantities that differ from the predicted range (Kibritcioglu, 2001). Certain groups perceive these differences as a danger, but others see a chance to act now and take precautions before the problem gets worse. Thus, one could contend that the concept of a crisis is not inherently negative.

An abrupt and unexpected series of events that significantly harm a country's economy, especially its financial markets, is called a financial crisis.

A financial crisis is characterized by a state of fear and anxiety brought on by the possibility of bankruptcy or by actual bank and business insolvency in the economy. The imbalance in bank and firm balance sheets, which is mostly brought about by monetary imbalances, is one of the most significant features of financial crises. From the perspective of stock market investors, a financial market departure happens when there is a feeling of mistrust in that specific market. Widespread financial irregularities lead to investor mistrust, which in turn makes banks and businesses nervous and ultimately triggers a financial crisis.(Akalin and Ucak, 2008).

A financial crisis is characterized by an inability to repay bank debt, which results in a precipitous drop in the value of money, volatility in the financial markets, and fluctuations in the prices of assets such as foreign currencies and dividends (Acar, 2012). Whether economic

instability leads to a financial crisis will depend on how well the state's financial system works and the steps taken to address these imbalances. All of these factors have a major role in determining how susceptible the economy is to crises. Therefore, the best way to understand financial crises is as the result of either financial or economic imbalances, which are closely linked to the economies' increased vulnerability (Sayım vd., 2004).

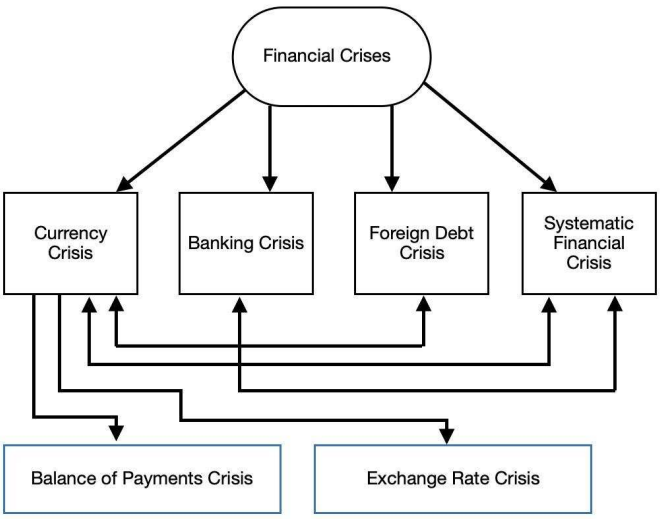
Financial markets play an important role in the economy by efficiently diverting funds from units with surplus capital to those in need of funds in order to achieve optimal resource allocation. Because of the increased productivity in the real economy, this encourages economic growth. The financial system accomplishes these goals through financial markets and the institutions that function within them (Cevis, 2005).

After defining the term, in the following sections, I present the many types of financial crises.

1.1.1. Financial Crises Types

The literature classifies the financial crises that have occurred from the 1980s and 1990s to the present, especially those that have affected emerging nations, into four major types (Delice, 2003). However, it might be difficult to distinguish clearly between these crises because they frequently happen one after the other. Emerging markets are more likely to experience systemic financial crises, currency crises, banking crises, stock market crises, and crises involving external debt (Figure 1.1.).

Figure 1.1. Types of Financial Crises



Source: Delice, Guven. "Financial Crises: A Theoretical and Historical Perspective". Erciyes University Faculty of Economics and Administrative Sciences Journal, 20 (2003)

1.1.1.1. Currency Crises

Currency crises are also known in the literature as foreign exchange crises. It occurs as a result of a sudden and unexpected change in the exchange rate or capital movements. It mostly occurs in countries that implement a fixed exchange rate system. Market actors are shifting their demands from assets shaped by the national currency to those shaped by foreign currencies. As a result, the foreign exchange reserves of central banks are depleting. As a result, a currency crisis is occurring (Turgut, 2006). When a speculative attack occurs on a country's currency, and this results in a sharp depreciation of that currency, a currency crisis emerges because the central bank has to sell large amounts of reserves and significantly raise interest rates to protect the national currency (Delice, 2003).

Currency crises can occur in all exchange rate systems. In countries that implement a fixed exchange rate system, the currency crises that arise manifest themselves in the significant depletion of foreign exchange reserves necessary to maintain the fixed rate. Currency crises in countries implementing flexible exchange rate systems occur when fluctuations exceed acceptable limits. For this reason, financial crises are divided into two categories. In countries that implement fixed exchange rate systems, the currency crises that arise are referred to as balance of payments crises. These crises arise due to the declines in foreign exchange reserves. The crises that arise in countries implementing a flexible exchange rate system are referred to as currency crises. An important point to note here is that the factor causing the crisis is not the decrease in foreign exchange reserves, but rather the fluctuations in the exchange rate (Delice, 2003).

The determinants of currency crisis can be grouped into five main categories (Kibritcioglu, 2000);

- Weak macroeconomic indicators and flawed economic policies,
- Insufficient financial infrastructure,
- Moral hazard and asymmetric information,
- Erroneous feelings and intuitions of creditors and international organizations in the market,
- Unexpected events and coincidences.

Before the exchange rate changes, there should have been a depreciation in one or several of the relevant determinants; however, this has led economic actors to initiate a speculative attack against a national currency that has not yet depreciated. Afterwards, there was a flight

from the national currency to foreign exchange. While addressing the pressure reflected in the current exchange rate; it has been preferred by those who shape the economic policies of the country to either choose one of the options of a significant reduction in Central Bank reserves, a major devaluation, or serious increases in domestic interest rates, or to appropriately combine two or all three of these measures (Kibritcioglu, 2001).

1.1.1.2. Banking Crises

The deterioration of banks' capital structures, the imbalance in balance sheets, the decrease in the recovery rate of loans, fluctuations in the stock market, and excessive volatility in exchange rates are causing banking crises. Banking crises generally stem from the deterioration of bank balance sheets. The erosion of trust in the banking system is leading depositors to suddenly withdraw their deposits from banks. For this reason, the liquidity problems of banks are reaching critical levels (Cevis, 2005).

One aspect of banking crises is that banks nearing bankruptcy or at risk of failing lose their ability to meet their obligations, that is, their debts. The other aspect is that the state is forced to support banks on the verge of collapse through large-scale interventions (Oktar and Dalyanci, 2010).

According to the International Monetary Fund, banking crises arise for three reasons. The first of these is caused by actual or potential bank deposit withdrawals. What is causing banks to defer their obligations in the second instance? Lastly, the bank failures were caused by the government's attempt to prevent the crisis by providing large amounts of financial support. Banking crises last longer than currency crises. They are causing more severe effects on economic activities. Due to the controls over capital transactions and financial restrictions, banking crises occurred less frequently in the 1950s and 1960s. Since the 1970s, it has become more widespread on a global scale (IMF, 2002).

The causes of banking crises are divided into macroeconomic and microeconomic factors. Changes in interest rates, sudden shifts in supply and demand, high inflation rates, fluctuations in exchange rates, changes in capital movements, and financial liberalization are significant macroeconomic factors that lead to banking crises. The lack of adequate oversight and regulation of the transactions carried out by banks, insufficient transparency, inadequate capital, government intervention in banks, and the high guarantees provided for bank deposits are cited as microeconomic reasons leading to banking crises (Demir, 2016).

The failure of a single bank does not mean the failure of the entire banking system. The key point here is the size of the share of banks in crisis within the banking system. In this regard, the reflection of a singular bank crisis on the entire banking system and its transformation into a full-blown banking crisis depends on the bank's share in national or international markets. As the bank's share within the system increases, the likelihood of a crisis turning into reality also rises (Yay et al., 2001).

1.1.1.3. Foreign Debt Crises

External debt crises arise when borrowers default. At the same time, lenders stop providing new loans when they see the possibility of debts not being repaid. For this reason, they are also trying to withdraw existing loans, leading to a foreign debt crisis. Debt crises can occur due to the debts of the private sector or the public sector. The inability of the public sector to meet its debt obligations is causing a sharp decline in private equity investments. The sharp decline in capital inflows can lead to a currency crisis (IMF, 2002).

External debt crises refer to the situation where obligations arising from a debt contract are not fulfilled on time (Reinhart et al., 2011). In other words, it is a situation where a country is unable to pay the principal and interest of debts belonging to the public or private sector due to external payment problems (Yucel and Kalyoncu, 2010).

The currency of external debts is in foreign exchange. Especially developing countries prefer development through external savings. This situation also causes balance of payments deficits. Overcoming the crises caused by currency bottlenecks is pushing countries into external borrowing. Additionally, budget deficits arise when the pace of public revenues and expenditures deteriorates against public revenues. In such a situation, governments resort to external borrowing to meet their revenue needs.

On the other hand, the failure to channel the obtained loans into areas that would increase the country's production capacity, the lack of reduction in public spending, and the inability to close budget deficits are reasons for re-borrowing for debts that have matured. Thus, the way is being paved for increasingly short-term and higher-interest borrowing. As a result, borrowing is reaching an unsustainable level. Obligations arising from the loan agreement are not being fulfilled on time. Access to borrowing from the markets is being largely lost. Thus, one may face greater financial costs (Orhan et al., 2009).

1.1.1.4. Systematic Crises

Systematic crises are characterized as unsustainable shocks that arise in the financial system and have a detrimental influence on both the real and financial markets' ability to function effectively. (Marshall, 1998). Currency and banking crises are also included in the category of systematic financial crises, which can be caused by the rules governing capital flows as well as by political and social factors.

Through financial institutions, the fund demanders—those who require finance to invest—and the fund suppliers—those who have excess savings—come together in the financial markets. Compared to other forms of crises, systemic crises are more profound and widespread because they damage the efficient operation of markets, which affects every economic unit.

Systemic crises can arise from the mismatch between the institutional structure of financial markets and the devaluation that occurs when developing countries' national currencies lose value as a result of a speculative attack. (Miskin , 2001) While currency and external payment crises and the potential for outflow of foreign money and exchange rate shocks threaten the entire financial system in wealthy countries, they do not injure developing nations' financial structures.

The primary features of systematic financial crises are as follows (Ozer, 1999):

When businesses are unable to satisfy their funding demands, a liquidity crisis that develops in the financial markets can affect the real economy and cause problems with employment and production.

Any institution, industry, or nation that experiences a crisis can't help but attract the attention of other nations, industries, and businesses. Company bankruptcies that happened in Thailand and Korea were swiftly noticed in the neighboring countries of the region as well, as was the case with the Asian crisis.

Due to low expectations, investors are beginning to call back the loans that have already been made and are giving up on the concept of contributing money. But the reason for this predicament isn't the creditworthiness of the businesses borrowing money; rather, it's the investors' gloomy outlook.

The current state of affairs is become unsustainable, and market efficiency is declining. But not every stock market decline or abrupt change in exchange rates triggers a catastrophe. This situation cannot be classified as a crisis if the stock market losses present chances for other speculators to make money.

Systematic crises do not have a single, decisive event at their outset. Despite being aware of some structural problems, investors continued to steer capital flows to these nations during the Asian crisis; nevertheless, the abrupt reversal of capital became a factor that aggravated the crisis.

1.1.1.5. Real Sector Crises

"Real crises manifest as serious contractions in the 'quantities' in goods-services and labour markets, meaning in production and/or employment (recession and/or unemployment crisis)." (Kibritcioglu, 2001).

The real sector is divided into labour and goods-services markets. Crises that arise in the goods and services markets are also divided into two categories: inflation crises and recession crises.

As is known, the permanent increases in the general level of prices in the goods and services markets are referred to as inflation. If these increases are above a certain level, it is called an inflation crisis. In an economy, if the general level of prices increases persistently, as in Turkey, and remains at high levels, it is referred to as chronic inflation in the literature (Kibritcioglu, 2001).

Continuous declines in the general price level are leading to stagnation in the economy. In an environment of stagnation, full utilization of production capacity cannot be achieved. National income occurs at the level of underemployment. Unemployment begins to trend upward, and the general price level continues to decline (Yilmaz, 2018).

1.1.2. **Financial Crisis Models**

After the 1970s, economic crises created significant economic problems in both developing and developed countries, and crisis models based on speculative attacks were developed in response to these crises (Kaminsky, 2006).

The fact that crises in developing and developed countries have varied according to time and national conditions has led to the differentiation of models aimed at explaining these crises. In fact, despite the majority of the economic upheavals occurring in succession showing a number of similar characteristics, they have erupted under different conditions and at unexpected times, overturning the crisis models that were valid up to that point. Indeed, for this reason, it has become quite natural to classify economic crisis models by generation (Erdogdu, 2007). However, the most recently proposed economic crisis model is not sufficient to explain the next crisis. Because each crisis has brought a new phenomenon to the forefront, this situation has led to the emergence of new theories and models. Although the crises of the 1990s exhibited similar characteristics, no crisis was exactly the same as another, which limits the explanatory power of economic crisis models regarding the crises that occurred. However, although the models in question are not sufficient, each of them can help in understanding the possible symptoms of the next crisis by drawing attention to different aspects of the crises. It should also be noted that economic crisis models are not substitutes for each other, but rather complementary theories (Yay et al., 2001).

In the literature, the model aimed at explaining the crises experienced by some Latin American countries in the 1970s is referred to as Krugman's first-generation currency crisis model (Krugman, 1979). The model explaining the European Monetary System Crisis (1992) is Obstfeld's second-generation currency crisis model (Obstfeld, 1995). Finally, after the currency crises that erupted in East Asia in 1997, discussions on monetary crisis theory have gained prominence. New models and analyses have been presented. As a result, the first and second-generation currency crisis models have led to the emergence of Krugman's third-generation currency crisis model, namely the moral hazard model (Krugman, 1998).

1.1.2.1. First Generation Crisis Model

First-generation crisis models are pioneering studies developed to explain monetary crises, introduced by Paul Krugman in 1979. Krugman realized that the logic applied to commodity boards could also be applied to central banks. In his seminal paper, he presented a model known as "First-Generation Crisis Models" (Ozatay, 2011).

The financial crises that countries faced starting in the 1970s led to theoretical studies aimed at understanding their emergence and predicting them before they occurred. These initial studies are referred to as 'first-generation research' (Akdis, 2000). In Krugman's model, a crisis arises from the inconsistencies between monetary, fiscal, and exchange rate policies under the assumption of perfect foresight (Varlik, 2002).

First-generation crises have demonstrated that even when macroeconomic fundamentals are strong, negative expectations from speculators can still trigger a crisis. Moreover, raising interest rates may not be sufficient to stabilize sudden speculative movements. In economic literature, financial crises have gained significant attention both for their explainable aspects and for the ability to predict and take preventive measures. Throughout history, various approaches to explaining financial crises have been proposed by prominent economists (Ozatay, 2011).

In the First-Generation Currency Crisis model, there are three fundamental assumptions on which financial crises are based (Ozsoylu, 2010).

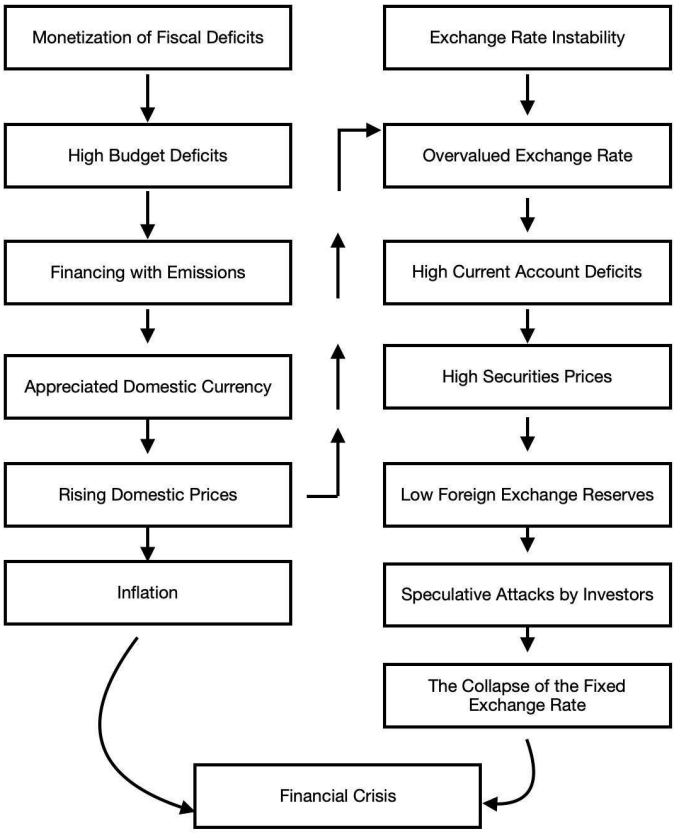
- Although the crises that occur can quickly impact the markets, they are not insurmountable; rather, they are predictable and can be prevented if precautions are taken before the crisis environment develops.

- While many factors contribute to the onset of financial crises, the most significant is the ineffective macroeconomic policies implemented by governments.

- Despite affecting a large area, crises reveal the underlying causes of the economic problems that have arisen.

The progression of Krugman's first-generation crisis model culminates in a devaluation, validating the panic of foreign speculators. As shown in Figure 1.2, the monetization of fiscal deficits and exchange rate instability lead to a financial crisis.

Figure 1.2. Relationship between Financial Deficits and Financial Crisis



Source: Simsek, Hayal A. "Financial Crises and Fiscal Policies: A Theoretical Evaluation", Süleyman Demirel University Journal of Faculty of Economics and Administrative Sciences 13 (2008): 183-208.

The first-generation crisis model is characterized by the excessive appreciation of the local currency, increasing budget deficits, and declining foreign exchange reserves due to misguided monetary and fiscal policies. Krugman's model is also referred to as the "Balance of Payments Crisis Model" or the "Speculative Attack Model" because of these underlying causes (Serin and Basti, 2001).

During the crisis formation phase, the term "shadow exchange rate" is used to describe the approximate level of the new exchange rate equilibrium that emerges when a fixed exchange rate system is about to be abandoned. The shadow exchange rate represents the level of the exchange rate that would materialize once the central bank allows the currency to float, signifying the system's unsustainability. Another significant contribution of this model to crisis literature is its demonstration that the abandonment of a national currency is not solely due to investors' poor decisions. Instabilities in prices increase the cost of holding the national currency, leading to speculative outflows that ultimately bring an end to the fixed exchange

rate system. In both global and Turkish financial crises, the mismatch between domestic macroeconomic policies and the exchange rate system has led to the abandonment of the national currency and the occurrence of speculative outflows (Ucer, et al., 1998).

The first-generation currency crisis models effectively explain crises where fixed exchange rate regimes become dysfunctional due to movements in foreign exchange reserves and budget deficits financed by printing money, such as the 1994 Mexican crisis. However, these models proved inadequate for explaining crises like the 1992 ERM (Exchange Rate Mechanism) crisis. As a result, second-generation crisis models were developed to address these limitations (Yilmaz et al., 2005).

As a result of these model searches, approaches known as "second-generation crisis models" have been developed. These models highlight macroeconomic and political issues and examine the effects of sudden changes in economic agents' expectations.

1.1.2.2. Second Generation Crisis Model

The ERM (European Exchange Rate Mechanism) crisis of 1992–1993 could not be described by first-generation crisis models, which led to the development of second-generation crisis models—also referred to as multiple-equilibrium models—in the literature. According to the first-generation crisis models, speculators' negative expectations might cause a crisis to arise even in the case of the finest macroeconomic statistics. They also demonstrated that stabilizing abrupt shifts in speculative behaviour can require more than just an increase in interest rates. Second-generation crisis models were created as a result of this gap (Yilmaz et al., 2005).

According to second-generation crisis models, crises are occurrences that appear out of nowhere as a result of speculators' pessimistic assumptions about the long-term viability of economic policies. Speculators function with the belief that their activities will not have an impact on macroeconomic policies. On the other hand, low expectations for macroeconomic data set off a feedback loop that affects economic policy. Second-generation models are implemented at the intersection of the expectations of speculators and the existing economic policies (Yilmaz et al., 2005).

"Contagion" and "Herd Behavior" are key ideas to consider when looking at second-generation crisis models. Although investors are taken to be rational in herd behavior models, it is assumed that they only know a portion of the facts about the economy. The term

"contagion" describes how a crisis spreads from one economically connected region or nation to another. Notably, herd behaviour was seen by Krugman as a sign of currency market inefficiencies (Ozsoylu et al., 2010).

Second-generation models state that the result is neither expected nor inevitable, nor is it thought to be just. These models have abrupt crises without any leading indicators. Numerous economic crises that occurred in the 1980s and 1990s have been explained using first- and second-generation crisis models. But these models weren't enough to explain the Asian crisis of 1997, so a new model had to be created. Third-generation crisis models eventually emerged as a result of the quest for new models (Yilmaz et al., 2005).

1.1.2.3. Third Generation Crisis Model

In 1995 and 1996, international capital inflows into Southeast Asian countries reached significant levels, with 40% in Yen and 60% in Dollars. The combination of excessive investments, a surge in international borrowing, and an appreciation in the real exchange rate culminated in the Asian Crisis (Parasiz, 2009).

The crisis that disrupted the economy was not a result of the imbalances suggested by first- and second-generation models. While these models have shed light on some crises, they were inadequate in fully explaining the Asian crisis. Numerous models emerged, suggesting that currency and banking crises (twin crises) were triggered by specific factors and phenomena, with the banking and financial sectors being the source of the problems. There are many versions of these models. The initial version posits that, following financial liberalization, poorly planned banking systems and microeconomic irregularities—such as moral hazards created by implicit deposit insurance and implicit government guarantees, and excessive borrowing—led to significant crises (Ozatay, 2011).

Asian economies performed exceptionally well from the early 1980s to the late 1990s, achieving levels of "fiscal discipline" and "monetary stability" that many other countries aspire to. There were no "adverse expectations" in the monetary and financial markets in Asia. For these reasons, the Asian Crisis could not be explained by first- and second-generation crisis models. This led to the development of third-generation crisis models aimed at explaining the Asian Crisis. These models attribute the crisis to financial irregularities, asymmetric information in financial markets, and the phenomenon of moral hazard (Tari et al., 2011).

Third-generation crisis models identify deficiencies in financial markets as the primary factor in the formation of crises. These models highlight two classic forms of distortions: poor policies in the form of government guarantees and disruptions in the execution of contracts due to asymmetric information. Contagion effects are a central component of these models, which examine the spread of crises in three specific scenarios (Yucel and Kalyoncu, 2010).

i. Financial linkages resulting from cross-border connections of large international financial institutions and the lending constraints between countries,

ii. Real dependencies arising from countries' trade relationships or competitive behaviors in third markets,

iii. The increased tendency of investors to engage in joint investments due to globalized markets, leading to a reassessment of debtor countries' creditworthiness and a subsequent decline in their credit ratings.

Third-generation crisis models are based on Krugman's "moral hazard" perspective and Radelet and Sachs's "speculative attack" theories (Samur, 2010). Krugman argued that the moral hazard problem arises when financial intermediaries operate under government guarantees, leading to overexpansion of the financial system, which eventually bursts and triggers a crisis. On the other hand, Radelet and Sachs suggested that speculative attacks could occur because the maturity of bank liabilities is shorter than the structure of bank assets. These models, drawing on the Asian crisis, highlight the strategic importance of the banking and financial sectors, explaining not only the causes of the crisis but also its spread across national economies (Yilmaz et al., 2005).

II. FINANCIAL CRISIS IN THE WORLD

With globalization, the shift in national economies toward new directions has made crises more complex and their impact on economies increasingly destructive (Asikoglu and Ogel, 2006). Crises occurring worldwide have significantly impacted both developed and developing countries, both economically and socially. Below, the Great Depression of 1929 and subsequent financial crises are discussed.

2.1. The Great Depression of 1929

The technological advancements brought about by globalization after the Industrial Revolution contributed to the outbreak of two World Wars between 1914 and 1946. These

conflicts had significant impacts on the world, affecting economic, political, and social domains. The First World War left European nations weakened, increasing the need for economic and social restructuring in the aftermath. The heavy loss of life during the war reduced the labor force, leading to a decline in production. As production decreased, inflation rose, worsening poverty. While imports surged, exports dwindled, leading to economic difficulties. During the 1920s, developed European countries struggled to recover from the devastation of the war, while the United States began focusing on industrial and financial development (Bakirtas and Tekinsen, 2004).

Before World War I, European countries operated on an economic system based on the gold standard. However, with the onset of the war, they abandoned the gold standard and turned to printing money without any backing. This shift in policy led to rising inflation rates and a decline in the value of national currencies. As a result, investors began directing their funds toward American banks. This trend contributed to significant capital accumulation and economic growth in the United States (Egilmez, 2011).

The continued inflow of gold into the United States and ongoing economic growth in 1929 led to a rise in stock prices. In response to this surge, the government began implementing deflationary policies, which caused economic contraction. The sudden drop in stock prices triggered the onset of the crisis (Karakozak, 2012).

The atmosphere of uncertainty that emerged after the Great Depression hindered the flow of capital into real investments. The 1929 Great Depression led to low demand and high supply, causing prices to drop globally and resulting in the closure of many businesses, which in turn increased unemployment. The decline in production capacity, coupled with limited demand and rising unemployment, prompted a stronger shift towards Keynesian policies. In the years following the crisis, technological advancements and new inventions began to emerge. During this period, the American stock market also experienced an upswing (Bulus and Kabaklarli, 2010). However, the Keynesian approaches mentioned were unable to prevent the outbreak of World War II. During this time, the American stock market also saw an increase (Bali and Buyuksalvarci, 2011).

The full recovery from the 1929 crisis and the complete restoration of the U.S. economy took until the years of World War II. Additionally, having learned from this crisis, the government increased its interventionist role in the economy, strengthened the central bank, and tightened regulations and oversight over financial sectors (Yardimci et al., 2017).

2.2. ERM Crisis (1992-93)

Since 1979, the European Monetary System's Exchange Rate Mechanism (ERM) has been a major influence on the region's monetary policies.

The first steps toward monetary unification were taken with the creation of the European Monetary System (EMS) on March 13, 1979, which included Germany, Spain, France, Belgium, the Netherlands, Luxembourg, Denmark, and Ireland. The EMS had multiple modifications between 1979 and 1999 as a result of variations in inflation across its member nations. This raised some questions about how well the system worked to provide monetary stability and lessen swings in exchange rates. Generally speaking, nevertheless, the exchange rate procedures produced outcomes that could be deemed effective.

The primary objective of the European Monetary System (EMS) was to establish a framework for monetary stability in Europe through the implementation of measures designed to increase stability within and beyond national boundaries. The goals of the EMS were to create a fund to provide resources to member nations, develop a single currency, and establish new regulations to control volatility in exchange rates. In the years following Bretton Woods, it made crucial financial and exchange rate cooperation possible. The system was initially designed to function with a fixed but adjustable exchange rate mechanism, but it eventually developed into a system with more constrained controls over capital flows and narrower, more stable target zones (Ozer, 1999).

The severe monetary policy problems that industrialized nations have been experiencing are what led to the ERM crisis. In particular, foreign money was drawn to these targeted sectors by the higher interest rates in European nations than in the United States, which resulted in an overvaluation of national currencies and an increase in current account deficits. These were the main causes of the crisis. The inefficiency of the monetary and fiscal policies that the European nations had been implementing prior to the crisis was another significant reason. Elevated interest rates, intended to draw in foreign funds for financing current account deficits, impeded investment and employment growth, ultimately resulting in a recession (Yay et al., 2001).

Speculative movements contributed to the ERM crisis, just like they do in any other crisis. One of the contributing reasons was intense short-term capital movements. Furthermore, the European nations who bought German Marks were forced to follow Germany's strict financial regulations, which also caused them to enter a recession. With all of these things taken into

account, the ERM crisis can be defined as a monetary crisis brought on by fixed exchange rates, overpriced currencies, financial deregulation, erratic policy, and speculative activity on global capital markets (Yay et al., 2001).

2.3. Mexican Crisis of 1994-1995

Because of the right circumstances, large quantities of short-term foreign capital poured into Mexico for speculative investment in the late 1980s and early 1990s. However, over time, the nation saw a decline in foreign capital inflow due to growing current account deficits, low savings rates, an overpriced currency, and political unrest. Mexico's financial crisis in December 1994 led to the devaluation of the Peso, the country's currency (Gur and Tosuner, 2002).

Mexico saw a large inflow of foreign capital in the 1990s as a result of joining NAFTA (the North American Free Trade Agreement). Mexico's macroeconomic structure benefited initially from NAFTA's economic policies. Policies pertaining to financial liberalization and privatization made the country more appealing to foreign investors and attracted significant amounts of foreign cash. However, Mexico's financial vulnerability rose since only roughly one-fifth of these foreign assets were in the form of direct investments; the remainder were high-return, short-term money. Capital found a profitable environment in Mexico due to the country's higher interest rates than in the United States. The national currency, the Peso, became overvalued as a result of the excess of foreign capital, which resulted in a dramatic increase in imports and a stagnation in exports, ultimately leading to an increase in the trade imbalance between 1989 and 1992. The allure of privatization measures, which drew in large numbers of foreign investors, also faded during this time. This, together with political unpredictability and volatility, caused a decline in foreign capital inflows, which culminated in the financial crisis that hit Mexico in 1994 (Onis and Aysan, 2000).

Second-generation crisis models account for the Mexican crisis's most notable structural aspect. Examining the time frame preceding the crisis, changes in foreign exchange reserves, as well as other monetary indicators and the macroeconomic framework, had a different course from what Krugman's initial generation of crisis models had anticipated (Szczurek, 2003). The current account deficit that started and ended in devaluation is what defines the Mexican crisis. The crisis emerged as a result of the adverse economic conditions in Mexico, which included declining reserves, a worsening current account deficit, and a decline in the ratio of exports to imports. These factors had an effect on the balance sheets of the banks. Notably, the Mexican economy lost credibility during this time due to a number of factors,

including a notable rise in credit given to the private sector, the maintenance of a fixed currency rate policy, rising international interest rates, and concerns brought on by political assassinations. Ineffective financial supervision and regulation resulted from an increase in credit to the private sector, and banks lacked the means to keep an eye on the loans they were making (Yucel, 2003).

Unpaid bank debts have been one of the biggest problems in Mexico. By 1995, the percentage of non-performing bank loans to GDP had risen from less than 5% in 1990 to approximately 15% (Karabulut, 2002). Similar to the previously noted problem, the percentage of non-performing loans to total loans was 3.1% in 1991 but rose to 7.3% by 1994 (Yucel, 2003). Based on these events, the Mexican government went through a period of unrest following the devaluation of its currency at the close of 1994. On December 20, 1994, the country faced a financial crisis due to the growing probability of a crisis.

The main takeaways from the Mexican crisis can be summed up as follows:

- Although policies for fixed or semi-fixed exchange rate stabilization may be beneficial at first, over time they may result in significant levels of currency overvaluation and current account deficits.

- Short-term concerns might arise when big current account deficits are financed with foreign capital.

- Significant swings in portfolio investments and short-term capital flows might upset stability.

- Inadequate banking systems not only facilitate the crisis's expansion but also make it more difficult for the central bank to employ interest rates as a tool during a crisis, underscoring the necessity of regulatory changes and bank oversight.

- Investor confidence is mostly derived from financial transaction transparency (Yay et al., 2001).

2.4. **Argentina Crisis**

Despite Argentina's positive attributes, such as its natural resources, vibrant agricultural sector, and industrial capabilities, it has struggled to achieve economic stability. Notably, significant irregularities in macroeconomic indicators emerged after the Southeast Asian crisis. Like other Latin American countries, Argentina experienced high inflation and

currency crises during the 1980s. The country implemented numerous stabilization programs but only achieved stability through new reforms introduced in 1991.

Although there were no significant negative developments regarding public accounts in Argentina up until 1995, the rise in public deficits, political conflicts, and corruption in that year adversely affected the economy and increased risks. The Mexican crisis and devaluation impacted Argentina, leading to the departure of capital from Latin American countries. There were also sudden withdrawals in short-term capital and portfolio investments. Despite these challenges, the government's continued adherence to a fixed exchange rate policy led to an increase in the current account deficit, economic contraction, and severe unemployment (Yenturk, 2005).

2.5. Russia Crisis

After the collapse of the Soviet Union at the end of 1991, Russia transitioned to a democratic system and embarked on a rapid process to adapt to a free market economy. As the value of the ruble was being determined in the market, most of the state-owned enterprises were privatized. During the integration process, Russia experienced a significant influx of hot money, which was used to cover public deficits. The shift from a socialist to a capitalist system was carried out quickly, without oversight, and with no legal framework. As these changes rapidly unfolded, the IMF's proposed legislation, which was in response to increasing demands, failed to pass through the Duma (lower house). Consequently, in early 1998, the IMF decided to halt payments, citing that the program would not be implemented unless the Russian tax system and public deficits were addressed. As a result, the ruble's value decreased significantly, and the stock market experienced a substantial decline (Bulutoglu, 2002).

Despite the extensive reforms, Russia failed to make financial progress and approached the brink of a financial crisis. In August 1998, it declared a moratorium, resulting in a deferral of nearly $45 billion in debt. Russia's inability to service its debt and the subsequent 90-day moratorium led to a crisis that also impacted global markets, causing disturbances in financial markets worldwide. Although inflation was reduced in 1997 and GDP showed positive growth, which was seen as a favourable development for the Russian economy, the economic crisis that began in Southeast Asia started to negatively affect Russia's economy as well (Bulutoglu, 2002).

2.6. Asian Crisis

From the early 1980s to the late 1990s, Asian economies exhibited remarkable performance in achieving levels of "fiscal discipline" and "monetary stability" that many countries aspire to. The crisis in Asia emerged as a result of the liberalization of capital movements and the influence of liberalism, which led to the rapid outflow of speculative capital from the countries. Starting in Thailand and eventually impacting all Southeast Asian nations, the crisis was caused by several factors: erroneous government policies, weaknesses in the banking system, currency imbalances, and the loss of confidence among foreign investors. In 1997, Thailand experienced a flight of its national currency, leading to its transition to a free-floating regime. The Philippines was the next country affected, where the margin of fluctuation for the national currency was widened. Subsequently, Indonesia's currency, the Rupiah, fell to its lowest level against the dollar. Similar situations were observed in South Korea as well. In the aftermath of the crisis, credit rating agencies downgraded the credit ratings of these countries (Ener and Siverekli, 2004).

2.7. The 2008 Global Crisis and Its Emergence

In his book "The General Theory of Employment, Interest, and Money," published in 1936, Keynes likened financial markets to a casino and stated that they should not grow excessively. At the same time, Minsky, in his 1980 book, argued that markets are prone to crises and attributed this to banks and other intermediary financial institutions. According to Minsky, these institutions periodically play the role of arsonists, leaving the entire economy in flames (Minsky, 2013). As can be understood from the above statements, the excessive growth of financial markets and the inability to regulate them allow for the occurrence of crises. Indeed, the 2008 global crisis is seen as a crisis that deepened due to the complexity of financial markets.

The crisis that emerged in the U.S. mortgage market in August 2007 is considered the largest global economic crisis in world history. At the same time, it shares many common characteristics with past financial crises. These characteristics are considered to be the mismanagement of financial innovations, asset price bubbles, and the deterioration of financial institutions' balance sheets, which were also present in previous crises (Ozturk and Govdere, 2010). However, there are two distinct characteristics that set this crisis apart from other crises (Perelman, 2008). These are the fact that its formation is different from what is known and that it has increased the demand level due to debt rather than income. In addition,

the "coverage of high-volume derivative products" and the broad scope of its impact also make this crisis different from others (Togan, 2009).

The crisis development process can be examined in three periods. The first period is the time from 2000 to 2007, when there was an abundance of liquidity in the world, and income levels and consumer spending tendencies increased. In fact, this period extends to the low-interest, abundant money policy implemented by the USA after the 1990s. The positive developments in the economy from the 1990s to 2007, such as the increase in liquidity and low interest rates, were seen as signs of stability and balance, which boosted confidence in the markets. Therefore, investors ignored the potential risks when making decisions and contributed to the formation of the crisis (Goodhart, 2008). As a result of these policies, when real estate price increases surpassed interest rates, becoming a homeowner through borrowing became profitable. This situation has increased the demand for real estate, and the rising demand has triggered an upward trend in real estate prices. In this situation, many people have taken on debt to purchase second and third properties for investment purposes, thinking that they could be sold at a higher price in the future. Between 2001 and 2005, the prices of houses sold increased by an average of 42.3%, while the average prices of houses rose by 39.3% (Hemmelgarn and Nicodeme, 2010). During this period, it is observed that the tendency of households in the USA to borrow from credit markets and non-financial institutions has increased, with the borrowing rate rising from 98% to 136% of their disposable personal income (Erdonmez, 2009). At the same time, the total debt of households, businesses, and the government in the U.S. has doubled in relation to GDP from 1980 to 2007 (Tabb, 2008).

During this period, banks provided high-risk loans to individuals and institutions with lower payment capacities to stimulate the economy and achieve higher profits (known to the public as NINJA loans - no income, no job, no asset (Alantar, 2008).) they have provided. The aim here is to determine the risk of default based on the income level of the person using the credit and to provide them with a loan at an interest rate appropriate to their risk level ((Weaver, 2008). These loans, known as subprime loans, are arranged to enable low-income individuals in the United States to become homeowners, despite their high risk of default due to low credit quality (Bajari et al., 2008). According to Orlowski (2008), the first of the five distinct stages of the financial crisis is constituted by subprime loans. In 2001, these loans were at a rate of 7.2%, but by 2006, they had risen to levels of 20% (Hemmelgarn and Nicodeme, 2010). These loans were provided at both higher interest rates and on a variable rate basis. Using the receivables from these loans as collateral, they issued real estate bonds and sold

them to hedge funds, aiming to earn high profits with higher interest rates than the market rates. Additionally, new mortgages were prepared on mortgaged real estate, and new loans were taken, increasing the volume of credit without any corresponding assets (Susam and Bakkal, 2008). Mortgage bonds taken from those who want to own real estate with debt were converted into new financial instruments and sold to others, and the instruments obtained from others were sold to even more others, resulting in highly profitable derivative products (Contracts that allow companies to subject risks arising from other transactions to trade, thereby transferring the risk and initially serving as an insurance function in the system (Egilmez, 2008)). has been achieved. This situation, referred to as securitization, has led to the proliferation of derivative products in the markets and caused those who use them to take on excessive risks. However, this situation has been beneficial for banks because it transfers the risk of loan defaults to third parties and provides high returns with more loans without having too many deposits. However, credit institutions that transferred the risk caused the derivatives market to grow even more by taking out new loans. So much so that the real value of derivative instruments exceeded the values of the homes they were tied to, leading to a credit bubble. Additionally, the fact that nearly all the loans in the U.S. real estate market had variable interest rates increased the risk of loan repayment. At the same time, these structured derivative products have created an adverse selection problem for investors due to their significant asymmetric information (Orlowski, 2008).

Towards the end of 2006, this process began to reverse and a different period was entered. This period, which we can call the second period, can be considered the time until the collapse of Lehman Brothers Bank in 2008. During this period, the freezing of loans and the beginning of the decline in housing prices deepened the financial crisis, and the saturation of the US real estate market caused housing prices to fall (Karshenas, 2009). Due to the decline in house prices, unsold housing stock has accumulated, and new home construction has decreased. At the same time, the rise in interest rates has limited new credit opportunities, causing the debt burden of those using variable-rate mortgage loans to increase and leading to payment difficulties. With the increase in interest rates and the decrease in housing prices, loans have started to go unpaid. As a result of all this, the number of houses put up for sale through foreclosure has increased. When banks were unable to collect the loans they had given, they faced a resource shortage and, combined with the atmosphere of distrust in the market, this led to a blockage in the financial system.

The third period of the crisis process encompasses the period that began with the bankruptcies of banks and financial institutions in the third quarter of 2008 and continued with rescue efforts. The central banks of the USA and some developed countries have coordinated to finance the markets with large amounts of money in order to alleviate the market tightness. However, the measures and implementations taken were not sufficient, and some banks went bankrupt, while some financial institutions and companies lost value. During this process, the crisis spread to other countries through channels such as the trade of highly risky assets, trade channels, credit channels, uncertainty, and lack of confidence, affecting both the financial and real sectors (Kibritcioglu, 2011).

III. FISCAL POLICY IN PREVENTING ECONOMIC CRISES

3.1. Concept, Objectives and Instruments of Fiscal Policy

In this section, the theoretical framework of fiscal policy is discussed. The concept of fiscal policy, the objectives and instruments of fiscal policy have been detailed.

3.1.1. The Concept of Fiscal Policy

The Great Depression of 1929, which emerged after World War I, is considered the most significant reason that prepared the birth of fiscal policy. The widespread and intense unemployment, insufficient demand, and decline in production levels caused by the Great Depression pushed economists towards the idea of creating a deliberate balance through public intervention tools. Thus, important theoretical foundations for fiscal policy were established based on the views formed by John Maynard Keynes in his book "The General Theory of Employment, Interest and Money," published in 1936 (Onder, 2013).

Fiscal policy refers to adjustments made in the quantity and composition of financial instruments such as public spending, taxes, and borrowing to achieve certain economic objectives. Fiscal policy, as a part of economic policy, refers to qualitative and quantitative adjustments made in economic instruments to achieve economic goals (Batirel, 1984).

3.1.2. Objectives of Fiscal Policy

As a part of economic policy, fiscal policy includes the regulations that need to be made in the size and composition of public expenditures and public revenues to achieve fundamental macroeconomic goals in the economy. The fundamental macroeconomic goals within this framework are to ensure economic stability, fairness in income distribution, and economic

growth (Atac, 1994). However, it should be noted that the basic macroeconomic targets can be further increased if desired. These can consist of various sub-policies ranging from ensuring sustainable development to protecting the environment. These goals can vary according to the level of economic and social development of the countries.

3.1.2.1. Ensuring Economic Stability

According to classical economic thought, the economy is always balanced at the level of full employment. Therefore, for the Classics, economic stability and full employment mean the same thing. However, according to the Keynesian school that developed after the Great Depression of 1929, the level of employment can occur at underemployment, overemployment, and full employment levels (Yilmaz, 2018). Ensuring economic stability is possible through the simultaneous achievement of price stability and full employment (Atac, 1994).

3.1.2.1.1. Price Stability

One of the biggest economic challenges for countries today is ensuring and maintaining a balanced price level. The maintenance of price stability means preventing fluctuations that occur at the general level of prices in the economy. Price fluctuations that occur at the general level and are continuous can be of two types. The general price level is either continuously rising or continuously falling. The first situation is referred to as inflation. The second situation is called deflation. The maintenance of price stability is expressed as the control of inflation and deflation in the economy (Atac, 1994).

According to Keynesian analysis, price stability is disrupted when total demand exceeds total supply. Therefore, this type of inflation is demand-pull inflation. It is possible to combat this type of inflation using financial instruments. However, the demand-side fiscal policy measures taken by developed countries to prevent unemployment are accelerating inflation. On the other hand, it is known that the expectations of price increases, the temporary scarcity of resources used in production, and tax increases also cause inflationary pressure (Batirel, 1984).

In today's economies, a tendency towards an overall increase in prices is being observed. Therefore, the aim of fiscal policy in ensuring and maintaining price stability largely encompasses the fight against inflation (Atac, 1994).

3.1.2.1.2. Full Employment

Fiscal policy emerged in response to the widespread and intense unemployment problem created by the Great Depression of 1929. Therefore, at the forefront of the discussions underlying fiscal policy is the achievement of full employment. Indeed, one of the main objectives of fiscal policy in today's economies is still to achieve full employment.

Full employment is defined as the utilization of all available production factors in an economy. In other words, full employment is the full utilization of resources in an economy. It can be said that an economy in which resources are fully utilized operates efficiently. Otherwise, the level of national income in the economy decreases, and there is a decline in the rate of economic growth. Regarding the full utilization of resources, it should be noted that it is not possible to speak of a hundred percent utilization. In a dynamic economy, it is considered reasonable for a certain percentage of labor, one of the factors of production, to be idle during a certain period. In today's economies, this rate is between 3% and 5% and is considered valid for full employment. Additionally, the underutilization of the labour factor can be due to both structural and frictional reasons. Job switching, temporary seasonal layoffs, the presence of university graduates, or the existence of individuals who do not wish to work in an economy are among these reasons. On the other hand, if individuals who want to work are unable to find jobs, there is both an economic and a social problem. Due to unemployment, the economic and social structure of a country is being destroyed, and the quality of life for a large part of the society is declining. Therefore, fiscal policy plays an important role in achieving full employment and reducing unemployment (Ozturk, 2015).

3.1.2.2. Ensuring Justice in Income Distribution

The aim of fiscal policy to ensure fairness in income distribution is to eliminate the injustices in income distribution caused by the social and structural disruptions that contemporary economies face on their path to growth. The purpose assigned to fiscal policy shows the extent of the state's social dimension (Yilmaz, 2018).

Ensuring justice in income distribution is a result of the understanding of a social state. In an economy where the state does not intervene, the idea that income distribution will be unfair is accepted without question. Indeed, when the market is left to its own devices, outcomes tend to favour high-income groups. Therefore, the intervention of the state in the economy through fiscal policy tools is deemed necessary (Ozturk, 2015).

Transfer expenditures aimed at low-income groups can lead to an increase in the real incomes of these income groups. Again, by implementing progressive taxation, where lower-income individuals are taxed less and higher-income individuals are taxed more, some degree of fairness in income distribution can be achieved. Additionally, a more equitable income distribution can be achieved through higher taxation on luxury goods, which are consumed more by high-income groups, and lower taxation on essential goods, which constitute a large portion of consumption for low-income groups (Yilmaz, 2018).

3.1.2.3. Ensuring Economic Growth

For both developed and developing countries, issues of economic growth and development have held significant importance within fiscal policy since the 1950s.

In ensuring the capital accumulation necessary for economic growth, fiscal policy has important responsibilities. Especially in underdeveloped countries, fiscal policies are decisive in achieving economic growth and development (Ozturk, 2015).

While the increase in total production and income in a country is referred to as economic growth when it reflects as an increase in national income, the developments in the economic, social, political, and cultural structure that occur alongside the increase in national income are referred to as economic development. Indeed, growth is a prerequisite for development. In order for the social, political, and economic structure of a country to develop, a certain income level must be achieved. To ensure economic growth through the use of fiscal policy tools, it is important to understand the factors that determine economic growth. The conclusion drawn from various growth models is that the factors determining the growth rate in an economy are capital accumulation, population growth, and technological changes. The influence of these factors, which determine economic growth, through public investment expenditures and public revenues as tools of fiscal policy, is important for ensuring growth.

3.1.3. Instruments of Fiscal Policy

Fiscal policy utilizes various tools to achieve its objectives. Public spending, taxes, and borrowing are fundamentally tools of fiscal policy to intervene in the economy.

Fiscal policy objectives are mostly achieved through the state budget. For fiscal policy, which deals with the amount and composition of public expenditures and public revenues, the

budget deficit or surplus is considered one of the most important tools it can use to achieve its objectives (Yilmaz, 2018).

3.1.3.1. Public Expenditures

Public expenditures are defined as the expenses necessary for the conduct of public activities in a country (Pinar, 2006). In a narrow sense, it is expressed as the expenditures made by the state and other public legal entities. In this context, the expenditures of the central government and local administrations are being utilized. In a broad sense, they are the expenses incurred by the state in order to carry out all the functions it undertakes in economic and social terms (Susam, 2016).

One of the tools of fiscal policy, the financing methods of public expenditures, has different economic, financial, and social impacts. When public expenditures are financed by taxes, the equitable distribution of the tax burden should be taken into account. Because the purchasing power of the tax-paying segment is decreasing. On the other hand, the effects of public spending financed through borrowing are different. The impact of borrowing from which sector and the interest that needs to be paid at the end of the term on the economy leads to different outcomes (Yilmaz, 2018).

The characteristics of public expenditures and their effects on the economy are different from each other. The expenditures made by the government in the economy by purchasing goods and services are real expenditures. The state's expenditures of this kind lead to production and income flow in the economy. In other words, it directly contributes to GDP. Real expenditures are divided into two categories based on their characteristics: current expenditures and investment expenditures. Current expenses ensure that the existing production capacity operates at a certain level of efficiency. Investment expenditures are defined as expenses that expand the existing production capacity (Yilmaz, 2013). These are primarily expenditures on infrastructure, including roads, dams, energy, and factories. Investment expenditures increase production, ensure more efficient use of resources in the economy, and lead to more efficient functioning of production factors. It is considered the key to economic growth and development. It plays an important role, especially in combating unemployment, and the effects of investment expenditures on the economy become apparent in the long term (Ozturk, 2015).

Expenditures made by the government without purchasing goods and services are referred to as transfer expenditures. Such expenditures are carried out as a necessity of being a social state (Yilmaz, 2013). As with real expenditures, it does not have a direct impact on GDP. It is the transfer of purchasing power between individuals or social groups. In this context, it is used as an effective tool for correcting income distribution. There is no equivalent for transfer expenses. It is divided into three parts: social, economic, and financial transfers. Social transfers aim to enhance societal peace and welfare. They are the unreciprocated expenditures made by the state to certain individuals and groups. Scholarships given to students, retirement pensions, widow and orphan pensions, and unemployment insurance are social purpose transfers. Economic transfers are expenditures made for the payment of public debts. It includes the interest obligation arising from the loan agreement. The government affects income distribution by making interest payments. As the state's debts increase, the interest burden also rises. Therefore, since the share allocated by the state to financial and social transfers will decrease, income distribution and growth policies are negatively affected by this situation. Financial transfers, on the other hand, encompass incentive and subsidy payments such as financial aid, tax exemptions, and exceptions. With the subsidies given to investments, both investments and production are increasing. In this way, financial transfers are important for economic growth (Yilmaz, 2018).

3.1.3.2. Taxes

Tax is the most important source used to finance public expenditures. Individuals, since they began to form political communities, have sought methods to obligate members of society through taxation to meet their collective needs (Turhan, 1998).

According to one theory (benefit theory), tax is a payment transferred from the private sector to the public sector in exchange for public services, while according to another theory (power theory), it is a mandatory payment collected from individuals according to their ability to pay for the provision of public services (Turhan, 1998). Tax, which has different classification methods, is a highly effective tool in achieving fiscal policy objectives.

Tax can weaken the differences in income and wealth distribution that arise within the market mechanism. It reduces the income of high-income groups and supports low-income groups through a tax system that redistributes income. Therefore, it ensures the increase of effective demand and raises the level of employment (Turhan, 1998).

It is stated in the study that one of the objectives of fiscal policy is economic stability. To achieve this goal, taxation is quite effective tool.

When there are cyclical fluctuations in an economy, the impact of these fluctuations can be mitigated through taxation. During the expansion phases of the business cycle, societal welfare increases. In such an environment, reducing the tax burden leads to the emergence of inflationary tendencies. Again, increasing the tax burden during periods of economic contraction creates negative effects on investment and consumption expenditures, causing crises to deepen further. Therefore, modern finance theory advocates for a counter-cyclical tax policy in the field of fiscal policy. During periods of economic contraction, the tax burden can be alleviated, while during periods of expansion, the tax burden can be increased, thereby aligning cyclical fluctuations with economic conditions. The aim of fiscal policy regarding economic growth can also be achieved through taxes. The government can influence the factors determining economic growth through tax measures. Subsidies, tax reductions, exemptions, and exceptions can lead to an increase in capital accumulation (Turhan, 1998).

Taxes, which hold the highest share of public revenues, have also taken on social, financial, and economic functions, in addition to financing public expenditures. The state can impose the goals of ensuring justice in income distribution, achieving economic stability, and realizing economic growth on taxes. In order to achieve these objectives, taxes can be used as a tool of fiscal policy.

3.1.3.3. Borrowing

One of the important tools of fiscal policy is borrowing. When taxes are insufficient to finance public expenditures, the government resorts to borrowing (Ozturk, 2015).

Borrowing is used as an alternative to taxation when the limits of taxation are reached or when it is not possible to collect taxes. On the other hand, borrowing, which the state uses to balance its income and expenses, holds an important place among the state's sources of income today (Tekin and Tosunoglu, 2012).

Borrowing refers to the amounts that the government is obligated to repay, including principal, interest, and other payments, obtained from domestic or foreign markets in accordance with the government's fiscal policy instruments (Yilmaz, 2018). The borrowing obtained by the state from domestic sources is called internal borrowing, while the resources

obtained from foreign countries and international organizations are referred to as external borrowing.

Public spending and borrowing, like taxes, are among the tools the government uses to achieve its fiscal policy objectives. The state may choose to borrow in order to achieve certain economic and social goals. In such a situation, the purpose of borrowing goes beyond merely generating revenue for the government. In other words, the state does not borrow solely for financial purposes. Sometimes, it may resort to borrowing to guide economic policy, and at other times, as a tool of fiscal policy. Therefore, borrowing has various effects on the economy, such as public spending and taxes.

The effects of borrowing on the economy vary depending on the source of the debt. It has been previously mentioned in the study that domestic borrowing is obtained from domestic sources. Indeed, this situation is a kind of resource transfer within the country. The funds transferred from those who lend to the state are handed over to the creditors in exchange for principal and interest at the end of the term. The state's access to these resources creates additional demand in the market for loanable funds. Therefore, interest rates rise. With rising interest rates, the cost of borrowing increases. If investments are sensitive to interest rates, investments decrease. This situation is referred to as the full crowding-out effect (Crowding-Out Effect: The phenomenon where public expenditures financed by domestic borrowing lead to an increase in interest rates, thereby reducing private expenditures, especially investments, is referred to as the Crowding-Out Effect.) in the literature. The government's payment of its debts leads to the injection of resources into the economy. This situation is expansive in terms of economic activities. External debts, when taken, have a positive impact on increasing national income. Repayments, on the other hand, reduce the national income. Therefore, external borrowing becomes an effective fiscal policy tool in combating recession. During periods of inflation, external debt payments have a contractionary effect, thus playing an active role in combating inflation (Yilmaz, 2018).

3.2. Fiscal Policy and Implementation Methods in Preventing Economic Crises

Every economic crisis means distress that carries its own unique problems. However, every crisis also means a new set of experiences for those who know how to learn from them. Therefore, being able to produce permanent solutions for the future depends on the lessons learned from the crises experienced. The solutions being considered for production should be shaped according to the realities of the countries. As in the past, the proposed fiscal policy

measures today can reduce the risk of economic crises. However, it is still possible to enter a crisis despite the implementation of correct policies. This situation can only be resolved through the implementation of policies that will help overcome the crisis. This way, the socio-economic damages caused by the crisis can be reduced.

Considering the economic and social costs that a country facing an economic crisis will encounter, it is crucial to avoid a potential crisis. Sometimes, poorly implemented fiscal policy can be the cause of economic crises. However, it should be noted that the effects of the crisis can be mitigated or the risk of the crisis can be eliminated with a well-implemented fiscal policy. On the other hand, it plays an important role in helping a country facing a crisis to overcome it. Considering the unique conditions of each country, the performance achieved through the fiscal policy implemented to overcome crises may vary. Therefore, it is not meaningful to propose a standard fiscal policy to countries before, during, or after a crisis.

The idea of reducing the severity of economic crises through fiscal policy dates back to the Great Depression of 1929. With the Great Depression, the idea of stabilizing the economy again came to the forefront. Therefore, the state's activities related to public finance have increased. Within the framework of Keynes' ideas, the concept of an interventionist state has emerged.

Keynes emphasized the importance of the state in directing the economy. He stated that to overcome the recession, it is necessary to effectively use discretionary fiscal policies such as public spending, taxation, and borrowing. Within the framework of General Theory, fiscal policy has been assigned significant functions in guiding the economy.

Within the traditional framework, fiscal policies are implemented through three fundamental methods. These are discretionary fiscal policies, automatic stabilizers, and formula flexibility methods. However, in recent times, the pursuit of new approaches to ensure economic stability and fiscal sustainability has led to the implementation of fiscal rules.

3.2.1. Discretionary Fiscal Policies in Preventing Crises

Discretionary fiscal policy includes adjustments made by political decision-makers in fiscal policy instruments to prevent instabilities in the economy. In other words, voluntary changes in public expenditures and revenues are left to political decision-makers (Atac, 1994).

It is essential to make changes in the quantity and composition of public expenditures and taxes with deliberate fiscal policies in order to achieve the fundamental macroeconomic goals (economic stability, economic growth, justice in income distribution).

With discretionary fiscal policy, political decision-makers can make decisions freely. Discretionary fiscal policy allows for the adoption and implementation of appropriate fiscal policy decisions in the event of economic crises. Indeed, the implementation of a deliberate fiscal policy by the political authority that comes to power through elections in democratic administrations is seen as a requirement of democracy. Deliberate fiscal policies are deemed necessary for the political authority to implement its own program to enhance social welfare and effectively utilize public services. When an economic recession occurs, political decision-makers determine how much public spending will be increased and how much tax cuts will be implemented within the context of an expansionary fiscal policy. On the other hand, when the economy experiences high inflation, the decision on which public expenditures to reduce and by how much, and which taxes to increase and by how much, falls within the scope of discretionary fiscal policy (Ozturk, 2015).

Deliberate fiscal policies have been shaped by Keynesian economic thought. Intervention in the economy is necessary and even mandatory. Otherwise, the fiscal policies will not achieve their intended goals. There will be deviations in income distribution fairness, economic stability, and economic growth targets.

In the implementation of discretionary fiscal policies, political accountability is essential. Indeed, this responsibility can affect the political authority's success in the next election. Therefore, it is important for the powers of political authority to be at the desired level. However, the flexibility of the authority used leads to the emergence of short-term and vote-maximizing behaviours. This situation can increase uncertainties in the economy (Bali and Celen, 2007).

3.2.2. Factors Affecting the Success of Discretionary Fiscal Policies

Discretionary fiscal policies are designed and implemented when instability occurs in the economy. In this regard, there are two important factors that affect the success of discretionary fiscal policies. The first of these is the accuracy of economic forecasts. The second issue is delays. These factors increase the destabilizing effects of discretionary fiscal policies when a crisis occurs.

3.2.2.1. The Problem of Accuracy of Economic Forecasts

The accurate prediction and diagnosis of the current economic situation and changes in the economy are quite important. Because accurate forecasts regarding the state of the economy are needed for the interventions to be carried out consciously through fiscal policy. Indeed, the inability to accurately diagnose developments in the economy can further disrupt economic stability. For example, whether the experienced recession is a temporary downturn that can self-correct the beginning of a significant decline, or the reasons behind price increases if not correctly diagnosed, the fiscal policy measures implemented can further undermine economic stability instead of preventing crises (Atac, 1994).

3.2.2.2. The Problem of Delays

The second reason why discretionary fiscal policy implementations can disrupt economic stability is that, even if the economic situation is accurately predicted and diagnosed, fiscal policy is applied with a certain delay. Essentially, all fiscal policy implementations take time, and a fiscal measure can become obsolete before it even shows its effects. The important issue from the perspective of fiscal policy is to minimize these delays (Atac, 1994).

The issue of delays in the implementation of fiscal policy occurs in three stages. These are recognition delay, execution delay, and response delay.

Recognition lag refers to the delay between the emergence of an economic problem and the decision to take action on a financial transaction. Even if the problem is correctly diagnosed here, the delay in implementing a deliberate fiscal policy will not yield the expected result. Implementation lag refers to the delay between the moment action is taken on the policy and the start of its implementation.

The reason for this is also seen as legal and administrative decisions. Because the imposition or removal of a new tax is only possible through legislation within the framework of the tax's legality. The legislative process, on the other hand, takes time. Administrative decisions regarding public expenditures are much more difficult to make. For example, a decision made to reduce personnel expenses during an inflationary period can lead to public backlash. Response lag refers to the delay between the implementation of fiscal policy measures and the expected outcome. By its nature, the implementation of a fiscal policy measure takes time to produce the desired effect on the economy. When considering the changes that need to be made to taxes, a reduction in income tax will not initially have an impact on increasing

disposable income. However, when people with increased disposable income spend more, the expansionary effect of tax cuts will also become apparent. A more pronounced increase can be achieved through increased spending, leading to growth in production and employment (Pinar, 2013).

3.2.3. Automatic Stabilizers to Prevent Crises

When instability occurs in the economy, there are certain stabilizers that automatically bring the economy back to balance without any intervention. These are known as automatic stabilizers. Thanks to the elements embedded in the tools of fiscal policy, automatic stabilizers are triggered spontaneously whenever any instability arises in the economy. Thus, they are effective in reducing the severity of economic instabilities (Ozturk, 2015).

Automatic stabilizers ensure economic stability by creating a budget deficit during recession periods and a budget surplus during inflation periods without any deliberate decision-making. Under the assumption of a balanced budget; thanks to the automatic changes in fiscal policy instruments during periods of contraction and expansion, the fluctuations caused by these periods can be mitigated. For example, during periods of recession, unemployment increases and income decreases. In such an environment, if consumption expenditures are also considered to be decreasing, it becomes inevitable that the stagnation will deepen further. However, during such a period, unemployment insurance payments to the unemployed can somewhat alleviate the recession. Inflation issues also arise during periods of expansion. To reduce demand, unemployment insurance premiums can be collected from employees, thereby mitigating excessive demand increases. Again, tax revenues can be adjusted in a way that creates a similar effect. For example, an elastic tax such as income tax can eliminate excess demand by causing tax revenues to increase during an inflationary period (Pinar, 2013).

The issue of the accuracy of economic forecasts and the problem of delays that arise in the implementation of discretionary fiscal policies are eliminated thanks to automatic stabilizers. Because they create an impact on the economy with the contraction and expansion of income without any legal action being necessary. However, during periods when the economic crisis deepens and contraction or inflation reaches a serious level, the impact of automatic stabilizers is quite limited. In such an environment, resorting to discretionary fiscal policy becomes inevitable (Pinar, 2013).

3.2.4. Types of Automatic Stabilizers

Various tools that play the role of automatic stabilizers are utilized to mitigate the impact of economic crises. When a crisis arises, it is possible to mitigate the effects of the crisis solely by activating automatic stabilizers without any voluntary or legal intervention. There are various types of economic stabilizers. Progressive taxes, unemployment insurance, financial aid to the agricultural sector, insatitutional and family savings, spontaneously occurring budget deficits and surpluses, increases and decreases in inventories, and insurance premiums are among the most important of these.

3.2.4.1. Progressive Taxes

To determine the ability of taxes to mitigate the impact of cyclical fluctuations as an automatic stabilizer, it is necessary to measure the income elasticity of taxes. *"The income elasticity of a tax is the ratio of the relative change in tax revenues (ΔT/T) to the relative change in national income (ΔY/Y)"* (Yilmaz, 2013):

$$\varepsilon = \frac{\Delta T/T}{\Delta Y/Y}$$

This formula shows the cases where the income elasticity of taxes is less than 1, greater than 1, and equal to 1. In the case where the income elasticity of tax is equal to 1 (unit elasticity), the increase in tax revenues is equal to the increase in national income. In the case where the elasticity is less than 1, tax revenues cannot keep up with the increase in national income. If the elasticity is greater than 1, tax revenues show a greater change than the change in national income (Yilmaz, 2013).

With a flexible tax system, tax revenues linked to income are also increasing more significantly. Thus, excessive expansion in the economy is automatically prevented. While national income is decreasing, tax revenues are also decreasing more, thus preventing the contraction in the economy.

The tax that most closely follows changes in national income and has the highest flexibility is the income tax. The cyclical elasticity of income tax varies depending on how the tax base is defined in tax laws. Expansions and contractions in the economy have different effects on various types of income. Therefore, both the composition of national income and its distribution among income classes are important for determining cyclical effects. For example, while entrepreneurs' earnings are easily affected by fluctuations in the economy, wage earners are less affected by economic fluctuations. One of the conditions determining the flexibility of income tax is that the progressive rate considers personal and family matters. The stronger the degree of progressivity, the greater the elasticity of the tax. Regarding objective and subjective tax liability, the broader the scope of tax exemptions and exceptions, the greater the tax's cyclical flexibility will be. On the other hand, the method of tax collection, whether through declaration or withholding at the source, also affects the income elasticity of the tax (Ozturk, 2015).

Among progressive taxes, the one with the highest automatic stabilizer quality is the income tax. Income tax is a tax organized on the basis of a progressive rate schedule, closely monitoring changes in national income. During periods of economic expansion, increases in income occur more than the increase in national income due to the progressive tax system (Pehlivan, 2001).

Apart from income tax, when looking at the income elasticity of other types of taxes, their effects are less compared to income tax. For example, since corporate tax is applied with a flat rate tariff, its effect as an automatic stabilizer is quite weak. However, there are some special situations that arise in the application of corporate tax where the automatic stabilizer effect can be mentioned. It is argued that the distribution of dividends from corporate profits to shareholders during periods of economic contraction will increase effective demand (Sener, 2014).

The flexibility of consumption taxes such as VAT, which are of a general nature, is quite high. Because they closely monitor the changes in national income. The income elasticity of the said tax increases further with the exemption of goods with inelastic demand from the tax. The income elasticity of private consumption goods is low. It can be said that wealth taxes have weak powers as automatic stabilizers (Yilmaz, 2018). Because wealth taxes are aimed at achieving social purposes rather than generating revenue for the state. These are also about ensuring justice in taxation and correcting wealth imbalances within society. Additionally, in ad valorem taxes based on value, the tax base follows a trend parallel to cyclical changes.

Therefore, it is possible for ad valorem taxes to automatically increase tax efficiency (Turhan, 1998).

The structural flexibility in the tax system can automatically hinder economic growth in a dynamic economy. In this situation, defined as fiscal drag, the structural rigidity of the tax system automatically slows down economic growth. This effect emerges during the expansion periods of the economy (Ozturk, 2015). In an expanding economy, if the income elasticity of tax revenues increases, excessively rising taxes negatively affect growth. Therefore, the economy does not reach the full employment level, total demand gradually decreases, and thus economic growth is hindered (Yilmaz, 2018).

3.2.4.2. Unemployment Insurance

One of the applications that functions as an automatic stabilizer in the economy is unemployment insurance. Unemployment insurance payments are an effective measure for maintaining a balanced level of income and expenditure. During periods of economic expansion, the level of funds paid to the relevant institution for unemployment insurance is high. Unemployment insurance premiums form a fund within social security institutions. During periods of economic expansion, the number of unemployed decreases, which in turn reduces the insurance payments made to the unemployed. This situation is causing a decrease in the spending of workers benefiting from the fund due to unemployment insurance. Therefore, during periods of economic contraction, insured workers receive unemployment benefits from social security institutions when they become unemployed. Therefore, unemployed individuals do not have to cut their expenses. Thus, this situation provides a positive contribution to the economy's exit from the recession period.

During periods of economic recession, the number of unemployed individuals increases. Unemployment, by its nature, deprives individuals of their disposable income. Therefore, in such an environment, stagnation deepens significantly. To prevent a possible crisis, unemployment insurances come into play. In countries where unemployment insurance is implemented, individuals receive assistance from unemployment insurance when they become unemployed. That's why they don't have to cut back on their spending levels. This situation is helping the economy to recover from stagnation. In the expansion phase of the economy, the number of unemployed decreases. Unemployment insurance premiums, on the other hand, accumulate in the fund. Therefore, there is a decrease in individuals' disposable incomes. As a result, this process prevents the formation of inflationary pressures in the

economy. Unemployment insurance, as an automatic stabilizer, is dependent on the level of employment and national income and moves in the opposite direction of cyclical fluctuations. During periods of economic crises, unemployment benefits based on a mandatory insurance system provide significant contributions to reducing contraction tendencies. On the contrary, during periods when unemployment rates decrease and there are tendencies of economic expansion, the premiums paid by employees increase. Total demand is thus curtailed, and the funds obtained are paid out as unemployment insurance during periods of contraction and increased unemployment. Therefore, unemployment insurance implemented as an economic stabilizer plays an effective role in preventing potential crises (Ozturk, 2015).

3.2.4.3. Financial Aid to the Agricultural Sector

The state, through its agricultural policies, ensures the increase of agricultural production on one hand, while protecting farmers on the other. In this context, during periods when products are abundant, purchases are made by the state through relevant organizations and stocked. In contrast, during periods of product scarcity, he releases the products he had previously stocked to prevent excessive price increases. Thus, the government ensures the formation of market equilibrium in agricultural products and tries to maintain price stability (Pehlivan, 2001).

In terms of agricultural supply and demand levels, financial aid provided by the government is effective on the market. Indeed, financial aid provided with a plan and program that align with their objectives yields positive results for the economy. Otherwise, this situation will cause an increase in the financial burden borne by the state. The state aims to protect consumers when agricultural production is scarce. If the mentioned goals are achieved, financial aid with increasing success rates creates a burden as an expense in the state budget. What should be understood from the financial aids mentioned here is as follows: the encouragement of the agricultural sector, the habit of fertilization, mechanization, and using quality seeds, and the increase in productivity; these are the conveniences created by providing cheap inputs and offering low-interest loan alternatives. *"Financial aids, as a rule, appear as public expenditure and budget transfer expenses and can be given once or continuously to promote or protect a specific sector."* (Akdogan, 2011).

To summarize, financial aid, which acts as an automatic stabilizer, plays an effective role during times of crisis. It holds a very important place in terms of both consumer protection and the promotion of production.

3.2.4.4. Institutional and Family Savings

During periods of economic expansion, institutions experience an increase in their revenues. Therefore, institutions are allocating funds for new investments through self-financing (Self-financing: It is when a business raises capital with its own resources. In other words, it is the ability of the organization to provide the funds required for a new investment from its own equity.). This situation prevents the demand pressure that could arise from income increases and avoids entering an inflationary process. On the other hand, institutions are activating previously accumulated savings during periods of economic contraction. Thus, large fluctuations in spending levels are being prevented (Ozturk, 2015).

There is a similar situation in family savings as well. During periods of economic contraction, individuals serve as automatic stabilizers to the extent that they maintain their old lifestyles, despite a decrease in their income. A similar situation arises during the expansion periods of the economy. Individuals, despite their increasing incomes, do not change their old lifestyles, this situation creates a stabilizing effect on the economy (Turk, 1985).

3.2.4.5. Spontaneous Budget Deficits and Surpluses

The budget is referred to as the legal document that shows the government's revenue and expenditure estimates. The response of budget deficits to fluctuations in the economy functions as an automatic stabilizer. In periods of economic recovery, employment, national income, public expenditures, production, and public revenues increase, so the budget naturally yields a surplus. There are two types of effects of increased public spending on the budget deficit. The increase in public spending, on the one hand, raises the budget deficit, while on the other hand, it increases the national income through the multiplier effect. The increasing national income is increasing tax revenues. However, the increase in tax revenues is reducing the budget deficit. In periods of recession, it is known that total demand decreases, unemployment rises, and the general price level also decreases. The decrease in income is also reducing tax revenues. Therefore, public spending increases due to the rising unemployment insurance payments. This situation, as an automatic stabilizer, reduces the negative effects of stagnation on one hand. On the other hand, it causes budget deficits to increase. In periods of economic recovery, total demand increases, unemployment decreases, and the general price level rises. With the increase in income, tax revenues rise and unemployment insurance payments decrease. Therefore, public spending decreases. This situation also reduces the negative impact of expansion as an economic stabilizer and leads to a decrease in budget deficits (Ozturk, 2015).

3.2.4.6. Increases and Decreases in Stocks

Goods produced in the market are made for unspecified buyers. Manufacturers and producers do not know in advance to whom they will sell their goods while manufacturing and producing. Therefore, a minimum level of goods is kept in stock in every economy. In times of economic expansion, the increasing demand is met from inventories. Thus, there is no increase in the general price level. During periods of economic contraction, manufacturing and production continue. That's why there is an increase in stock. As long as there is no alarming increase in stocks, no increase in the general price level will be observed. Therefore, the increases and decreases in inventories in the economy play a protective role in maintaining price stability (Turk, 1985).

3.2.4.7. Insurance Premiums

Insurance premiums also play a role as an automatic stabilizer in the economy. Individuals insure their products to avoid being affected by fluctuations in the economy. When producers face extraordinary situations, the damages that arise are partially or fully covered by insurance companies. Thus, excessive declines in income levels are being prevented (Ozturk, 2015).

3.2.5. Formula Flexibility Method

The issue of delays arising from discretionary fiscal policies and the inadequacies experienced in automatic stabilizers reduce the effectiveness of these methods in the face of crises. The method of formula flexibility is a method introduced to address the issues arising in the implementation of discretionary fiscal policy and automatic stabilizers, and in a way, to serve as a bridge between them (Turhan, 1986).

According to the method of formula flexibility; in the event of changes in income, employment, or the general price level, certain provisions need to be included in the system for tax rate changes to automatically come into effect. With this method, the legislative body grants authority to the executive body. For example, when the unemployment rate rises by 5%, a decision is made to reduce the income tax rate by 10%. Therefore, immediate action is taken against the risk of a crisis (Yilmaz, 2018).

Achieving the desired effect in the economy using the formula flexibility method depends on the correct application of the method. First and foremost, it is necessary to determine what the indicators are in terms of the measures to be implemented in the face of crises.

3.2.6. Financial Rules to Prevent Crisis

The state's intervention in the economy through fiscal policy dates back to the Great Depression of 1929. Fiscal policies that emerged with Keynesian thought continued to be effective until the 1970s. However, the issue of stagflation that emerged in the 1970s has made the use of fiscal policies a matter of debate. In other words, a period has begun in which the implementation of fiscal policies in a different manner is being discussed. Discussions regarding fiscal policies have taken place within the framework of whether discretionary policies or fiscal rules would be effective in the implementation of these policies in the face of crises (Demir and Inan, 2011).

Financial rules are broadly defined as permanent restrictions imposed on financial performance indicators. In a narrow sense, it is defined as the compliance with budget forecasts and budget implementations in accordance with the rules (Bali and Celen, 2007).

In another definition, the fiscal rule is described as *"practices that restrict and closely discipline fiscal policies by imposing a series of quantitative limitations on budget sizes at the macroeconomic level."* (Demir and Inan, 2011).

When creating financial rules, there are several factors that need to be taken into consideration. It is possible to list these as follows (Kaya, 2009);

- Financial rules need to be well-defined. Uncertainties should not be allowed.
- Transparency must be ensured in the implementation of the rules.
- The rules must be simple and understandable.
- The rules need to be flexible.
- The rules must be compatible with the intended objectives.
- Rules should have a supportive nature for structural reforms.
- They must be compatible with other policies.

Generally speaking, financial rules impose limits on the fluctuating policies of politicians. Especially during election times, they pose an obstacle to populist tendencies. However, the sole purpose of fiscal rules is not to limit political power. It also sets a limit for the voter who acts solely in their own interest. Thus, expectation management can be carried out through financial rules. The main features of fiscal rules can be listed as follows (Bali and Celen, 2007):

- Fiscal rules have a legal basis.
- Financial rules are not prepared temporarily. Legal regulations are being made for their long-term implementation.
- They have enforcement authority. Failure to comply with the rules necessitates legal penalties.

Financial rules are generally addressed within the framework of budget, expenditure, revenue, and debt. In this context, the balanced budget rule, expenditure rule, debt rule, or rules related to taxation come to the forefront. The main financial rules are classified as follows (Kaya, 2009);

Rules Regarding Balanced Budgets or Deficits:

- The budget's income and expenses must be equal to each other. Golden rules should be established that allow borrowing only for investment expenditures.
- The budget deficit needs to be limited to a certain percentage of the gross national product.
- It is necessary to set specific targets for the non-interest surplus (It is the difference between the total revenues of the budget and the remaining expenditures after subtracting interest payments from the expenditures made from the budget.). These targets can be determined as a ratio of GDP or GNI. Within the scope of this goal, a balance can be established between expenditures and revenues.
- While reaching the level of deficit, current expenditures, which can be considered the key to economic growth, can be excluded. In the literature, items such as education, health, and research and development expenditures, which are considered development expenditures, are evaluated within this framework.

Rules Regarding Borrowing:

- There are limits imposed on the government's borrowing from domestic sources.
- The debt stock can be limited to a certain level.
- It is necessary to impose restrictions on the government's borrowing from central bank resources.

Rules Regarding Expenses:

- Limits can be set on the increase in expenditures.

- Increases in spending can be limited by an increase in income that will fund a specific expenditure.
- A limit can be imposed on inefficient expenditures that do not affect growth.

To incomes Relationship Rules:

- When income exceeds the estimated level, limits can be imposed to prevent it from being channelled into expenditures.
- A limit can be set on the increase of the tax burden.
- Limits can be set on tax expenditures, exemptions, and deductions.

Financial rules vary from country to country in terms of content. Economic problems in the country are becoming the determinant of financial rules. Some countries are trying to discipline public spending. Some prioritize their main goal of reducing debt stocks. Some, on the other hand, are setting targets aimed at increasing tax revenues. There are also countries where all the rules are enforced. In countries where financial rules are implemented, the common goal is to ensure financial discipline and make it sustainable. However, initially, the structural characteristics of countries determine the financial rules (Demir and Inan, 2011).

The financial rules, which were implemented to ensure financial discipline, have a long history. Since the 19th century, the "golden rule" practice has started in the states of federal countries. The golden rule is a practice that allows borrowing only to finance investments. In this context, it has been implemented in many states in the USA. In many cantons of Switzerland, various obligations have been imposed to maintain budget balance. After World War II, the balanced budget practice began in industrialized countries such as Germany, Italy, and the Netherlands. New Zealand, on the other hand, implemented it with a law in 1994. The law called Fiscal Responsibility has imposed restrictions on budget and borrowing indicators based on national income. After this law, financial regulations were widely implemented in many countries (Karayazi, 2017).

The economic and financial structure in Turkey has been managed for a long time through deliberate policies. The draft law on the implementation of the fiscal rule was prepared in 2010. However, it has not been implemented. It can be said that in Turkey, fiscal rule implementations are more often applied in the form of implicit fiscal rules. Objectives related to budget sizes and borrowing are being determined. These goals are being achieved in

harmony with government programs, medium-term plans and programs, and stability programs (Demir and Inan, 2011).

The crises experienced since the 1990s have led to significant changes in public financial management in Turkey. With the April 5 Decisions taken after the 1994 Crisis, the concept of primary surplus was defined as a performance indicator. At the same time, restrictions were imposed on the loans given by the Central Bank to the Treasury and other public institutions. In 1998, a restriction was first imposed on domestic borrowing. In 2000, restrictions were imposed to prevent public banks from being used to finance public expenditures. Especially since the early 2000s, financial rules have been systematically implemented. In this context, principles regarding the restructuring and functioning of public financial management have been adopted. The aim is to expand the scope of the budget. Goals such as the implementation of the medium-term budget system and the establishment of an internal control system have been set. The aim is to increase transparency and accountability in public financial management. Additionally, an important step was taken towards the regulation and discipline of public debt management with the enactment of the "Law on the Regulation of Public Finance and Debt Management No. 4749" in 2002. With this law, the net borrowing limit has been restricted to the difference between the total initial appropriations specified in the budget law and the estimated revenues. However, it has also been stipulated that it can be increased by a maximum of five percent within the scope of the needs and requirements of debt management (Balaban, 2012).

In Turkey, financial rules have been implemented especially through stand-by agreements made with the IMF. The process that began with the 1994 crisis continued until May 10, 2008. During this process, fiscal policies aimed at achieving a non-interest surplus were implemented through a standby agreement. Indeed, the primary surplus is quite important in terms of the sustainability of debts. The non-interest surplus target has been at least 6.5% of the gross national product for the entire public sector. This situation has been a strong anchor to dispel doubts about the convertibility of debts that emerged after the 2001 crisis (Karakurt and Akdemir, 2010).

It is possible to encounter the financial rules applied in Turkey in various legal regulations. These are the Central Bank of the Republic of Turkey Law No. 1211, the Public Financial Management and Control Law No. 5018, the Provincial Special Administration Law No. 5302 and the Municipality Law No. 5393 concerning local administrations (Karayazi, 2017).

3.2.6.1. Discretionary Fiscal Policies and Fiscal Rules

Discussions on whether discretionary policies or fiscal rules are more effective in achieving economic stability in the face of crises are present in the literature. While one aspect of the discussions consists of economic debates, the other aspect consists of political debates. Economic discussions focus on the success of discretionary macroeconomic policies and whether rules are necessary. Political debates, on the other hand, are related to the potential policies of governments that could create a crisis in the economy. From the perspective of those engaged in economic discussions, there are two groups: those who advocate for fiscal rules and those who support discretionary policies. Those who advocate for discretionary policies argue that fiscal rules are ineffective in combating economic crises. Because the economy has a dynamic structure and, in the long term, rules that could solve emerging problems cannot be established. Those who advocate for fiscal rules argue, as we mentioned earlier, that due to the difficulty of making predictions and the issue of delays, discretionary policies cannot be successful in the face of crises. At the centre of political debates, those who advocate for voluntary policies argue that this is actually a requirement of democracy. Administrators who come to power through elections need voluntary policies to implement the policies they promised. The responsibility to be accountable to the electorate lies with the officials who come to power through elections. Having fiscal rules in the economy narrows the scope of political power. Indeed, institutions such as the Treasury and the Central Bank, which are part of the bureaucracy, implement the rules in the economy. However, it is not these institutions that should be accountable to the voters. They are the administrators who come to power through elections (Pinar, 2013).

When looking at the arguments of those who advocate for fiscal rules, they are concerned about the populist policies of governments. Because macroeconomic targets are determined politically. Even the inflation target set by the Central Bank is realized within the framework determined by the political authority. The important point here is to eliminate uncertainties. In the absence of clear rules in the economy, even if political targets are set, during election times, the government can make decisions that contradict the country's economic realities in order to increase its votes. For example, some fiscal policy measures have an expansionary effect in the short term. Negative effects such as inflation, on the other hand, emerge with a delay. Voters support policies that align with their own interests in the short term. Therefore, interventions in negative developments that disrupt economic balances can only find application after the elections. Therefore, fiscal rules are important for ensuring fiscal discipline and determining policies that benefit the country's economy in the long term. Both

policies can be discussed in terms of their positive and negative aspects. In practice, flexible rules are important instead of a completely rule-free discretionary policy or rules that completely restrict the political authority's scope of action (Pinar, 2013).

To summarize, a large portion of the targets considered for implementation in the economy have a political nature. The fiscal rules considered for implementation against discretionary policies limit politicians' populist attitudes. In other words, fiscal rules ensure the depoliticization of fiscal policy.

VI. 2008 FINANCIAL CRISIS AND FISCAL POLICIES IMPLEMENTED AFTER THE CRISIS

The crisis that occurred in the United States in 2007, following the crises in Turkey in 1994, 2000, and 2001, is distinguished from the others not only by its commonalities with them but also by being a global crisis. The most important point that distinguishes this crisis from previous ones is that, *"beyond classical banking crises, it is fundamentally based on complex and high-volume derivative products, and the problems associated with these products have rapidly spread in the globalized world. This situation has made it difficult to conduct a healthy assessment of the economic system and has quickly created a global panic environment due to fear and uncertainty in financial markets"* (Bocutoglu and Ekinci, 2009).

4.1. The Spread of the Crisis

The first reason the crisis affects Europe is that derivative products originating from the US are also bought and sold by European banks. Therefore, a problem arising at the source of these products has directly affected European banks and the financial system. Secondly, there are many European banks, primarily from Germany and England, that operate in the US and have branches there. The losses these banks experienced in their investments in the US directly affected continental Europe as well. A third factor is the import demands from the countries affected by the crisis, which are European countries, and the decline in Europe's exports. In this situation, it has reduced production and growth in Europe and increased unemployment (Gurria, 2009).

When we look at the spread of the crisis in Europe (European Communities, 2009); in 2007, property owners in England were heavily indebted, and there were significant amounts of US-originated derivative products in English banks. This situation facilitated the spread of the

crisis in this country. On July 4, 2007, England announced that it would take special measures against five institutions providing subprime housing loans. On August 7, 2007, three hedge funds linked to the French bank BNP-Paribas fell into financial difficulty and announced the suspension of their payments. On August 9, the transactions of these funds were halted. Between August 10-31, 2007, the German Bank Sachsen-Landesbank went bankrupt and was sold to another German bank, Landesbank Baden-Wuerttemberg. This was the first failure in Europe during this crisis. The European Central Bank has provided 61 billion euros in liquidity to banks in Europe that have fallen into a liquidity crunch (OECD, 2009).

Between September 3 and 30, 2007, there was a rush to withdraw deposits from the British mortgage lender Northern Rock, leading to long queues outside the bank. On September 14, the Bank of England provided a loan to Northern Rock, insured the deposits in banks, and offered a government guarantee. At these dates, the crisis spread to Japan, Switzerland and Scotland. The European Central Bank first injected 95 billion Euros into the banking market, and later 108.7 billion Euros. This was followed by the central banks of Canada and Japan. On October 1, 2007, Swiss Bank UBS announced a loss of $3.4 billion, and Citibank's six-month loss rose to $40 billion (Greenspan, 2010).

In February 2008, Northern Rock was nationalized by the British government. On September 26, 2008, Fortis Bank announced that it would sell assets to increase its capital adequacy (Erdönmez, 2009). On September 29, 2008, Citigroup announced it would acquire Wachovia, Iceland nationalized Glitnir Bank by acquiring 75% of it, and Belgium, the Netherlands, and Luxembourg nationalized Fortis to save it from bankruptcy. On October 1, 2008, the European Union allowed the UK to rescue Bradford and Bingley, and the UK announced that it would guarantee deposits up to 50,000 pounds. On 6 September 2009, the G-20 meeting in London announced a $5 trillion stimulus package (Bocutoglu ve Ekinci, 2009).

The Chinese government announced a package foreseeing $586 billion in spending on a series of infrastructure and social programs by 2010. Similarly, India has implemented a stimulus package worth 200 billion dollars (Altug, 2009). Countries have announced different economic packages, with England allocating 691 billion dollars and Japan 150 billion dollars. The G-20, which met in London on April 2, 2009, announced that they anticipated a stimulus package of 1.1 trillion dollars (OECD, 2009).

The impact of the crisis on developing countries has largely been through capital movements and export channels (OECD, 2009). When problems arise in the (developed) countries that are the source of capital movements (hot money), the fear that this will also affect the developing countries has led to a rapid outflow of foreign capital from these countries, and the developing countries have faced a financing crisis. In the period from September 2008 to January 2009, the amount of foreign capital that left Turkey was 32 billion 666 million dollars. Especially due to the decline in exports caused by the economic contraction in various EU countries and the increase in international financing difficulties, the Turkish economy has also been rapidly and deeply affected by the global crisis (Kibritcioglu, 2010). The decline in growth in the US and European countries has led to a decrease in external demand, resulting in a reduction in imports from developing countries. This situation has led to a decrease in the foreign trade revenues of developing countries and consequently to the contraction of their economies. This time, it rapidly increased unemployment rates in developing countries, reduced domestic demand, and deepened the crisis (OECD, 2009).

While this negative situation continued to worsen in 2008, developed countries took additional measures besides financial aid in response to this situation. The first of these is the implementation of financial aid packages for the transfer of capital to financial markets through national treasuries. The largest financial aid package of this program has been approved by the U.S. Congress. The second is to address market disruptions (especially borrowing) and to place the obligations in the financial sectors under state guarantee to prevent the re-emergence of the trust problem. The third measure is the implementation of flexible monetary and fiscal policies. However, all these measures have not been sufficiently effective due to the rapid decline in global economic activities and the lack of confidence in financial markets (TCMB, 2008).

Ultimately, fiscal policy has been seen as the most important policy tool to offset the decline in aggregate demand in the short term. To exit the crisis, both industrialized countries and many other countries have turned to expansionary fiscal policies. The International Monetary Fund has also announced that the way for countries to exit the crisis will be through loose fiscal policy. They reached an agreement on this matter among the countries at the G-20 summit held in 2009 (Bocutoglu and Ekinci, 2009).

Towards the end of 2009, expansionary policies were implemented, resulting in a movement towards growth. However, alongside these positive developments, the dangers in the economy

have continued to persist. In this regard, the implementation of fiscal policy is also important in terms of timing. The early termination of this policy has reduced sustainable growth, while its late termination has increased the risks of inflation and public finance. Especially in European economies where the risk is high in terms of fiscal sustainability, and budget deficits and debt stocks are significant, these policies are more important (HMB, 2010).

4.2. The Global Crisis' Effects on the Turkish Economy

The Turkish economy also achieved success in ensuring growth by implementing contractionary fiscal and monetary policies to overcome the crisis it experienced in 2000. From 2000 to 2007, the Turkish economy achieved economic stability by showing significant improvements in macroeconomic indicators, financial structure, and budget performance (Susam and Bakkal, 2008). However, the crisis that began in August 2007 in the United States gained a global nature during the 2008-2009 period and turned into a debt crisis in European Union countries (Greece, Italy, Iceland, Hungary, Spain, and Portugal), which had some negative effects on the Turkish economy as well. In this context, significant changes have occurred in economic indicators.

By 2007, a partial slowdown was observed in the economy, and the growth rate was 4.6%, falling below the high rates of recent years. The slowdown of economic growth, the fluctuations in global markets, uncertainties related to elections, the drought caused by temperatures above seasonal norms, the strong Turkish Lira, and the slowdown in productivity growth compared to previous years, have created pressure on competitiveness, which have all been influential (TOBB, 2009).

Especially, while the prices of processed food products affected by drought have increased, the rising prices of oil and other commodities have also raised domestic energy prices. As a result of these developments, the annual consumer inflation rate rose to 12.06% in July (TCMB, 2009). The annual change in the producer price index (PPI), which is important for evaluating cost-push effects on consumer inflation, was 5.94% in 2007, but it increased to 17.03% in the first half of 2008 and reached 18.41% in July 2008. In this development, the rise in agricultural and petroleum products as well as the prices in the primary metal industry played an important role. In the following period, the annual PPI increase, which had decreased to 12.49% in September due to the decline in commodity prices such as oil and base metals, rose to 13.29% in October due to increases in furniture and clothing manufacturing prices (TCMB, 2008).

In the first quarter of 2008, GDP grew by 7.2 percent, and after the effects of the global crisis began to be felt, it grew by 2.8 percent and 1 percent in the second and third quarters, respectively. With the reflection of the crisis on the real sector, both domestic and foreign demand have contracted, and industrial production has decreased. As a result, GDP declined by 6.5% in the fourth quarter (TUIK, 2009).

The manufacturing industry grew by 9.1%, 4.8%, and 0.3% respectively in the quarters of 2008. In the fourth quarter, it decreased by 10.8%. As of the end of the year, the manufacturing industry has grown by 0.8%. A significant portion of manufacturing industry production consists of exportable manufactured goods. Due to the contraction in external demand caused by the global crisis, the export volume of the manufacturing industry decreased by 30% in the first eight months of 2009 compared to the same period of the previous year. This situation has been one of the factors contributing to the slowdown in the growth rate of the manufacturing industry. The capacity utilization rate of the manufacturing industry, which was 81% in 2006, increased by 0.8 points to 81.8% in 2007. By 2008, this rate had decreased by 3.7 points to 78.1%. In the relevant year, the capacity utilization rate in the public sector decreased by 1.7 points to 86.7%, while in the private sector, it decreased by 3.7 points to 77%. In the January-September period of 2009, the capacity utilization rate decreased by 13.4 points to 77.7% in the public sector and by 10.8 points to 68.1% in the private sector compared to the same period of the previous year. In the same period, the total capacity utilization rate decreased by 12.1 points and stood at 68.3 percent (TOBB, 2009).

Looking at the export data, it can be seen that exports began to decline in the second half of 2008. "Due to the decline in domestic and foreign markets, exports decreased by 28.4% in March 2009 compared to the same month in 2008, by 33.3% in April, by 41% in May, by 29.2% in June, by 28.3% in July, by 29.1% in August, and by 33.6% in September." After a long time, exports increased by 3.9% in October compared to the same month in 2008. However, exports decreased again in November, and the decrease rate was 5.2% (TUIK, 2009).

Due to the global crisis and the decline in commodity prices, foreign trade prices have also started to decrease. In Turkey, as mentioned above, the negative developments in terms of trade have become more pronounced in total exports in the last four months of 2008. In particular, refined petroleum, primary metals, textiles, and clothing items have seen a noticeable decline in their export price indices in the last quarter of the year. Total imports, on

the other hand, have decreased in both price and quantity since September. However, since the date when the global crisis first began to be felt, the contraction of domestic demand in Turkey and the depreciation of the Turkish Lira have led to a rapid decline in total imports (TCMB, 2009).

The most negative aspect of the crisis is the increase in unemployment. And when unemployment figures rise with the crisis, after the crisis ends, these figures enter a very slow recovery process (TUSIAD, 2010). In February 2009, the unemployment rate was 16.1%. In Turkey, the number of unemployed in February 2009 increased by 1 million 125 thousand compared to the same period of the previous year, rising to 3 million 802 thousand. Unemployment rates have remained high in the following months as well. The unemployment rate was determined to be 15.8% in March 2009, 14.9% in April, 13.6% in May, 13% in June, 12.8% in July, 13.4% in August, 13.4% in September, and 13% in October. In October, the number of unemployed increased by 569,000 compared to the same month in 2008, reaching 3,299,000 (TUIK, 2010).

With the unemployment rates reaching high levels, real wages have experienced declines. Indeed, manufacturing industry: real wage index: while it was 101 in 2007, it declined to 93 in 2009. This situation has weakened the purchasing power of workers. As a result of the increasing unemployment, the demand in the economy has decreased (Yilmaz, 2013).

In the 2008 central government budget, the budget deficit target was projected to be 18 billion TL, while the actual figure at the end of the year was 17.4 billion TL.The budget deficit, which was 11.5% of GDP in 2002, was reduced to 1.8% in 2008. A high primary surplus is an important element in terms of increasing confidence in economic policies and improving debt dynamics (TOBB, 2009). However, between 2002 and 2008, the ratio of the primary surplus to GDP averaged around 4.5%, but in 2008, it decreased to 3.5% due to the impact of the global crisis.

The central government budget expenditures for the year 2008 amounted to 227 billion TL by the end of the year, while the central government budget revenues for 2008 were 209.6 billion TL. Based on revenues and expenditures, the central government's budget deficit as a percentage of GDP has also been realized at -1.8%.

The central government's domestic debt stock was at the level of 255.3 billion TL in 2007, while in 2008, it reached the level of 274.8 billion TL with an increase of 19.5 billion TL. As a result of predominantly market-based borrowings and the redemption of non-cash bonds maturing in 2008, the market's share of the domestic debt stock increased from 73.8% at the end of 2007 to 76.1% at the end of 2008, while the public's share decreased from 26.2% to 23.9% during the same period. At the end of 2008, the central government's external debt stock increased by 2.6 billion USD compared to December 2007, reaching 69.7 billion USD. The share of long-term external debt, defined as having a maturity of 5 years or more, within the central government's external debt stock, increased by 1.5 percentage points to 99.1% by the end of 2008 compared to the end of 2007. Additionally, the debt stock to the IMF increased by 1.5 billion USD during the same period, rising to 8.6 billion USD (HMB, 2009).

In short, the global crisis has affected the Turkish economy through three channels: "foreign trade, financing, and expectations." It can be said that the channel most affected by the crisis is the foreign trade channel. The decrease in global trade volume and the impact of the crisis on the EU, the most important trading partner, have negatively affected Turkey's exports, leading to a decline in exports, especially in certain sectors. The decline in exports has negatively impacted growth, production, and employment. Another group affected by the crisis is the financing channel. The crisis has reduced the abundance of money in the financial sector and, like other countries, has decreased capital inflows in the Turkish economy. In some periods, it has caused capital outflows. In the real sector affected by this, there was an abundance of capital before the crisis, but during the crisis, a financing problem emerged (TOBB, 2010).

4.3. Fiscal Policies Implemented to Escape the Global Crisis

The Turkish economy has tried to overcome the global crisis by implementing measures similar to those adopted by countries around the world. Initially, monetary policy (liquidity support loans, interest rate cuts that reduce liquidity costs, etc.) was implemented, and later, fiscal policy was applied. Income and expenditure instruments have been the most frequently implemented policies among these. The primary aim here has been to reduce unemployment rates by increasing capacity utilization rates. In addition to these, other measures include tax regulations such as VAT and SCT reductions and the announcement of incentive packages for various sectors (Colak, 2009).

4.3.1. Public Expenditure Policies Implemented Against the Crisis

The 2008 global financial crisis was a turning point that brought the effectiveness of fiscal policy back into the spotlight. Thus, the importance of the expansionary fiscal policy that Keynes saw as the way out of the 1929 depression has been understood once again (Bocutoglu and Ekinci, 2009).

Due to the atmosphere of uncertainty and cash shortages in the crisis environment, private sector investment expenditures have also been negatively affected by the crisis. The government has made expenditures to meet the investment demand in the market during this process and to increase exports and employment through this. Here, special attention has been paid to selecting expenditure components that will not push the private sector out of the market. For example; public investments create positive externalities and reduce private sector costs through infrastructure investments (Kaya and Kaygisiz, 2015).

The most evident impact of the crisis process on the Turkish economy is the decrease in labour demand in the labour market. This has also led to a decrease in purchasing power, and therefore, articles have been added to "Law No. 5838 and the Unemployment Insurance Law No. 4447," and the durations and amounts of short-time working allowances have been increased and restructured. The duration of benefiting from this allowance has been extended to 6 months, and the payment amounts have been increased by half. Payments for healthcare services have been expedited, and temporary new job sectors have been initiated (Karakurt, 2010).

In short, the public spending policy measures taken during the global crisis are shown in the Table 4.1..

Table 4.1. Public Expenditure Policies Implemented Against the Crisis

Public Consumption and Investments	Highway investments have increased.
	The government will use 19.4 billion TL as additional resources for GAP, other infrastructure projects and irrigation systems in the 2008-2012 period.
	Increases in civil servant salaries.
Transfer to Household	Unemployment insurance payments will be calculated on a gross basis rather than net basis, and the amount will thus be increased by 11%.
Transfer to Businesses	In order to reduce the cost of electrical energy input, the discounted night tariff applied in industry for 2009 will be expanded to include weekends and other official holidays.
	With the legal regulation, the amount of short-time work allowance was increased by 50% and its duration was extended from 3 months to 6 months.
	Additional resources were provided for DFIF and KOSGEB.
	The term of the Incentive Law No. 5084 has been extended by 1 year. (energy support)
	New Incentive System; support for financing companies' interest expenses, cash support for companies to move their factories to certain cities.
Transfers to Other Public	Increase in transfers from central government to local administrations.
Other Expenses	Eximbank's paid-in capital will be increased from 1 billion TL to 2 billion TL.

Source: Ministry of Development, "2008 Pre-Accession Economic Program", April 2009, p.37. Quoted by: TÜSİAD, "Turkish Economy as We Enter 2010", 2009, http://tusiad.org/tr/(Access Date: :02.11.2024), p.74.

4.3.2. Public Revenue Policies Implemented Against the Crisis

Legal regulations such as "Asset Peace" have been implemented to overcome the liquidity problem by bringing certain assets into the national economy. Regarding the labor market, the employer's share of social security contributions has been reduced to lower costs. Additionally, to ensure vitality on the demand front, certain tax incentives have been implemented in critical sectors. In order to mitigate the social and economic impacts of the crisis, facilities have been provided for the restructuring of tax debts of companies and individual taxpayers. In order to address the obvious imbalances in the level of development between regions, incentive measures have been implemented (TUSIAD, 2009).

In order to encourage investments, a reduced corporate tax rate has been introduced for the profits obtained from investments linked to an incentive certificate through the "Law on Amendments to Certain Laws No. 5838." Regarding investments with incentive certificates, the Council of Ministers has been authorized to classify provinces based on the statistical regional units classification, per capita national income, and socio-economic development level, and to determine the sectors to be incentivized by groups and the investment and employment sizes related to them." Accordingly, the Council of Ministers has been authorized to determine the investment contribution rate as 25% for each provincial group and as no more than 45% for large-scale investments exceeding 50 million TL, and to apply a reduction of up to 90% in the corporate tax rate (Karakurt, 2010).

Due to Small and Medium-Sized Enterprises (SMEs) being among the first to be affected by crises, additional facilities have been provided not only through legal regulations to reduce their tax obligations but also in their mergers and divisions. The institution authorized to reduce corporate tax rates by up to 75% has been determined to be the Ministry of Finance (Mevzuat, 2009).

As seen in the Table 4.2., Turkey's revenue applications among the financial measures have been categorized into two main headings: those with a direct or immediate impact on the budget balance and those without. The details are provided under subheadings.

Tablo 4.2. Public Revenue Policies Implemented Against the Crisis

	INCOME APPLICATIONS
Individual Taxes	Income within the scope of "Law No. 5811 on the Contribution of Certain Assets to the National Economy".
	Withholding tax on stock gains applied to domestic investors has been reduced to zero.
	The application of 18-month installment payment with 3% interest for tax debts due as of October 31, 2008 has been continued.
Taxes on Businesses	Within the scope of the new incentive system; a regulation has been made to support businesses operating in the textile sector by means of reduced Corporate Tax and tax advantage in moving their production facilities.
	In company mergers, the possibility of applying reduced Corporate Tax has been introduced.
	The implementation period of the Incentive Law No. 5084, which was implemented in 49 provinces and expired on December 31, 2008, has been extended by one year. (Income tax withholding support)
Excise Taxes on Goods and Services	The SCT rate on the Internet has been reduced from 15 percent to 5 percent.
	There has been a temporary reduction in the Special Consumption Tax on motor vehicles.
	The Special Consumption Tax on white goods and electronic household goods has been temporarily reduced from 6.7 percent to 0 percent.
	VAT on sales of residences over 150 m2 has been reduced from 18 percent to 8 percent for three months.
	VAT on new business sales has been reduced from 18 percent to 8 percent for three months.
	VAT on furniture sales has been temporarily reduced from 18 percent to 8 percent.
	VAT on information technology products has been temporarily reduced from 18 percent to 8 percent.
	VAT on machinery, equipment, and equipment purchases has been reduced from 18 percent to 8 percent for three months.
Other Revenue Measures	In case of scrapping of old vehicles, the possibility of cancellation of Motor Vehicle Tax and penalties has been introduced.
	In consumer loans provided to individuals by banks and finance companies, provided that they are not used for commercial purposes, the KKDF deduction has been reduced from 15 percent to 10 percent.
	Fees in title deed transactions have been reduced from 15 per thousand to 5 per thousand for three months.
	Title deed transaction fees have been continuously reduced.
	FINANCIAL PRACTICES THAT DO NOT HAVE A DIRECT OR IMMEDIATE IMPACT ON THE BUDGET
Guarantee and Insurance Programs for Financial Institutions	The Treasury Guarantee Limit has been increased by $1 billion from $3 billion to $4 billion. The increased $1 billion will be used mainly for export and SME support. In addition, the limit for each company applying to Eximbank has been increased from $10 million to $20 million.
	The export rediscount credit limit has been increased from $500 million to $1 billion, and can be used 3 times a year. In addition, the terms of use of such credits have been rearranged and simplified.

Loans to Businesses	KOSGEB offers zero-interest credit to SMEs: total credit amount is 733 million TL.
	KOSGEB offers 0% interest credit to exporting SMEs: 1,650 million $.
	With the agreement made between TOBB and Halkbank, SMEs can use the lowest interest credit. According to this protocol, 800 million TL cash and non-cash and 400 million $ export credit usage.
	With the protocol made between the Turkish Textile Employers Union and Ziraat Bank, SMEs will be able to use low-interest credit.

Source: Ministry of Development, "2008 Pre-Accession Economic Program", April 2009, p.37. Quoted by: TUSIAD, "Turkish Economy as We Enter 2010", 2009, http://tusiad.org/tr/(Access Date: 02.11.2024), p.73.

During the relevant period in Turkey, there was also a reduction in the rates of the other tax, VAT, which is included in the price of goods and services. The VAT reduction; the first regulation regarding its implementation; was carried out with the "Council of Ministers Decision No. 2009/14802 published in the Official Gazette No. 27171 dated March 16, 2009.

The aforementioned decision, along with the details in the previous heading, has been implemented together with the specified VAT rate reductions, as well as the SCT rate reductions. The SCT reductions have primarily aimed at revitalizing the automotive sector as well as the white goods and electronics markets. Because with the said decree:

-The VAT rate applied to commercial vehicles (reduced to 1% for semi-trailers, from 1% to 0% for buses, from 4% to 1% for midibuses, from 9% to 2% for minibuses, and from 22% to 11% for motorcycles) has been lowered, and for cars with an engine capacity not exceeding 1600 cm3, from 37% to 18%, for those exceeding 1600 cm3 but not exceeding 2000 cm3, from 60% to 54%, and for cars exceeding 2000 cm3, from 84% to 80%.

-The 6.7% VAT on electronic goods and white goods has been eliminated.

The most recent regulation on this matter was made with the 'Council of Ministers Decision No. 2009/15081,' published in the Official Gazette No. 27260 (duplicate) on 16.06.2009. With this decision, the Special Consumption Tax (SCT) reductions implemented by the previous Council of Ministers Decision were slightly reduced. In other words, they were adjusted without restoring them to their original levels. Specifically, it is as follows:

-The SCT rate applicable to commercial vehicles has been specified as follows: 1% for semi-trailers, 0% for buses, 1% for midibuses, and 4% for minibuses. These rates remain the same as in the previous decision. Therefore, this decision essentially extends the period of the previous one. Additionally, under this decision, the SCT rate for minibuses, which was previously reduced to 2%, is now set at 4%; for cars with an engine capacity not exceeding 1600 cc, the rate previously reduced to 18% is now applied at 27%; and for motorcycles, the rate reduced to 11% in the prior decision is now set at 16%.

-The SCT on household appliances, which was reduced to zero in the previous decision, is now set at 2%.

V. RESULTS OF FISCAL POLICIES IMPLEMENTED IN TURKEY BETWEEN 2008-2017

After the economic crisis in 2008, the economy in Turkey and the entire world was turned upside down. Growth rates have declined since 2007 and reached -4.7 in 2009. Inflation rates rose to 10.06% in 2008, while unemployment reached 10%. After the crisis, macroeconomic indicators showed fluctuations, with the inflation rate at 8.53%, the unemployment rate at 10.9%, and the growth rate at 3.2% in 2016. By the year 2017, the inflation rate had increased to 11.92% compared to the previous year, while the unemployment rate was 10.8%.

According to the results of the 2015 Income and Living Conditions Survey, the Gini coefficient in Turkey increased by 0.006 points compared to the previous year, rising to 0.397. In 2016, it increased by 0.007 points to 0.404. This situation indicates that income inequality has increased compared to previous years (TUIK, 2016).

Table 5.1. Basic Macroeconomic Indicators Between 2008 and 2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Inflation Rate(%)	10,06	6,53	6.4	10.45	6,16	7,40	8,17	8,81	8,53	11,92
Unemployment Rate(%)	10	13,1	11,1	9,1	8,4	9	9,9	10,3	10,9	10,8
Gini Coefficient	0,410	0,420	0,400	0,400	0,400	0,400	0,391	0,397	0,404	
GDP (Real% Change)	0,8	-4,7	8,5	11,1	4,8	8,5	5,2	6,1	3,2	7,4
GDP (Million TL)	994.783	999.192	1.160.014	1.394.477	1.569.672	1.809.713	2.044.466	2.338.647	2.608.526	3.104.907
Non-Interest Surplus	33.229	440.050	8.217	24.448	19.004	31.443	26.543	29.479	20.988	9.339
Budget Balance	-17.432	-52.76	-40.081	-17.783	-29.411	-18.542	-23.369	-23.525	-29.257	-47.373

Source: TUIK, HMB

Note: Inflation rates based on 2003 are given.

Note: GDP is based on 2009.

When evaluating the size of public finance, two criteria are involved. These are the ratio of budget deficits to GDP and the development of the primary surplus. The policies implemented show their effects over a certain period of time. In other words, the policies implemented to mitigate the effects of the 2008 crisis did not show their impact during the crisis itself, but rather reflected in the budget sizes in the 5-6 years following the crisis. Therefore, general evaluations are made by looking at the changes in budget sizes. In this section, the post-crisis period is being examined. Thus, accurate assessments of the policies implemented after the crisis are observed (Kaya and Kaygisiz, 2015).

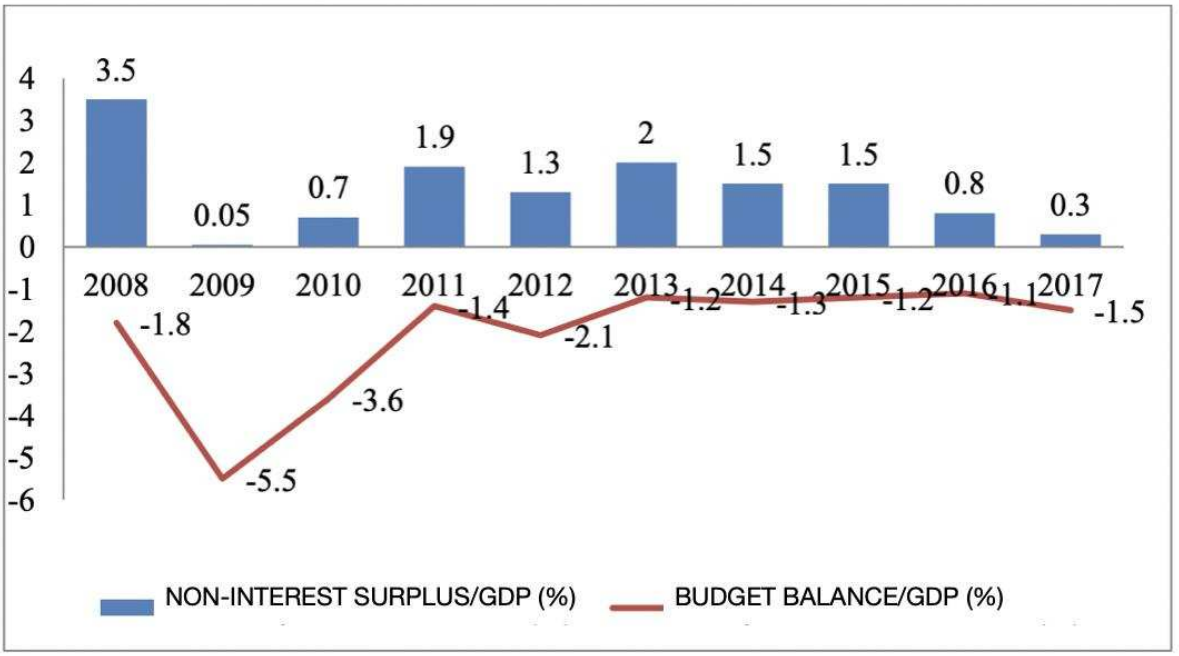
5.1. Budget Balance and Primary Surplus Results

In the Turkish economy, IMF-supported programs have been implemented since 1990. By implementing a tight fiscal policy, the aim was to achieve a primary surplus through "reducing public expenditures and increasing public revenues." The non-interest surplus, which was set at 6.5% at the beginning of the year 2000, had decreased to 3.5% by the year 2008. The reason for the decrease in the non-interest surplus is the use of fiscal policy to mitigate the effects of the economic recession. In the year of the crisis, a contractionary fiscal policy was continued for financial discipline. Measures have been taken to increase public investments in order to mitigate the impact of the crisis on the real sector. In 2009, expansionary measures were implemented to mitigate these contractionary effects. Incentives

have been applied to the "agriculture, transportation, and energy" sectors through taxes. The main important issue here is to maintain growth and a vibrant real economy by choosing policies that do not increase inflation (Batirel, 2008).

The Figure 5.1. showing the ratio of the budget balance and the primary surplus to GDP between 2008-2017 is shown below. According to the graph, the ratio of the budget deficit to GDP was 1.8% in 2008, while this ratio increased to 5.5% in 2009. Although there was an improvement in the budget deficit in 2010 and 2011, the budget deficit/GDP ratio rose to 2.1% in 2012. The rate, which started to decline again after 2013, was 1.1% in 2016. In 2017, it also occurred at 1.5%. The reduction in the central government's budget deficit was influenced by the high performance of tax revenues, which led to a greater increase in budget revenues compared to budget expenditures excluding interest.

Figure 5.1. Budget Balance and Primary Surplus to GDP Ratio Between 2008-2017

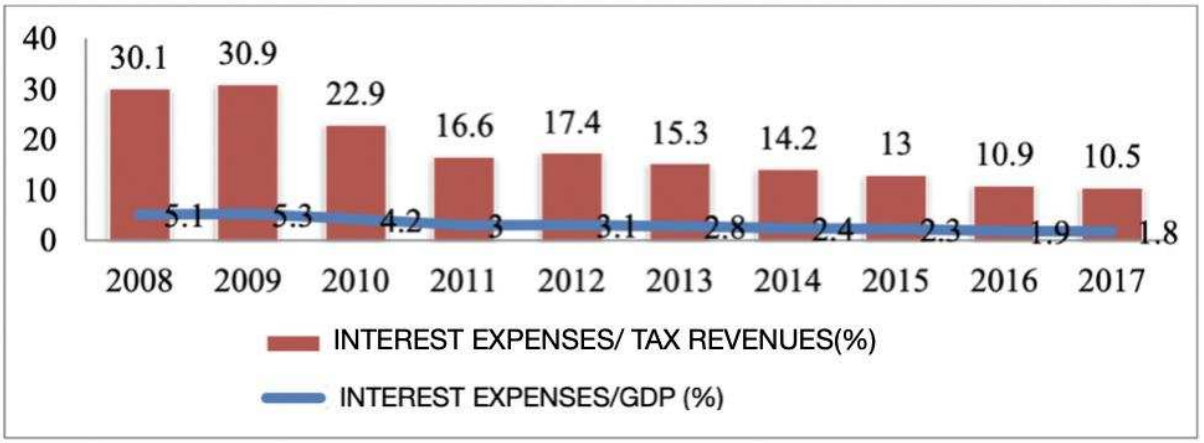


Source: Republic of Turkey Ministry of Treasury and Finance

As is known, according to the Maastricht Treaty, the ratio of a country's budget deficit to GDP should not exceed 3%. In this context, the ratios of budget deficits to GDP in our country have remained below 3% since 2006, except for the years 2009 and 2010. So, in terms of budget balance, Turkey has met the Maastricht fiscal deficit criterion in 2006, 2007, 2008, 2011, and other years. This situation is considered positive in terms of being able to implement financial discipline (Susam et al., 2013).

The ratio of the primary surplus to GDP, which was 3.5% in 2008, decreased to 0.7% in 2010 and increased to 1.9% in 2011. Except for the year 2013, a decline occurred in the other years compared to 2011, and it was at the level of 0.3% in 2017.

Figure 5.2. The Ratio of Interest Expenditures to GDP and the Ratio of Interest Expenditures to Tax Revenues between 2008-2017



Source: Republic of Turkey Ministry of Treasury and Finance

Thanks to the financial discipline achieved in public finance, the ratio of interest expenses to GDP is generally showing a downward trend. The ratio of interest expenses to GDP, which was 14.8% in 2002, decreased to 5.1% in 2008, 4.2% in 2010, and 3.1% in 2012, and fell to 1.8% in 2017.

The Figure 5.2. showing the ratio of tax revenues to interest expenses over the years is above. Parallel to the decrease in interest expenses and the increase in tax revenues, the ratio of interest expenditures to GDP fell from 30.1% in 2008 to 10.5% in 2017.

5.2. Results on Public Expenditures

The share of personnel expenses and state premium expenses to social security institutions within non-interest budget expenditures has remained at almost the same levels in recent years. In 2008, a total of 55.3 billion TL was spent at the end of the year on personnel expenses and state premium expenses for social security institutions, with personnel expenses amounting to 48.9 billion TL and state premium expenses for social security institutions amounting to 6.4 billion TL (HMB, 2009).

Expenditures on goods and services amounted to 24.4 billion TL at the end of 2008. As a result of the policies being implemented, including the facilitation of access to healthcare and the improvement of the quality and quantity of healthcare services provided, the share of expenditure on goods and services within the budget continuously increased during the 2003–2007 period due to the introduction of new spending programs and remained almost at the same level in 2008 (HMB, 2009).

Table 5.2. Central Government Budget Expenditures Between 2008-2017 (Thousand TL)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Expenses	**227.031**	**268.219**	**294.358**	**314.606**	**361.886**	**408.224**	**448.752**	**506.305**	**583.689**	**677.7**
Expenses Excluding Interest	**176.369**	**215.015**	**246.057**	**272.375**	**313.470**	**358.238**	**398.839**	**453.300**	**533.443**	**621.01**
Personnel and Social Security Premiums	55.264	63.155	73.377	85.763	101.190	112.541	129.299	146.106	173.553	189.406
Purchases of Goods and Services	24.412	29.798	29.184	32.797	32.893	36.386	40.800	45.563	53.937	63.470
Current Transfers	70.360	91.975	101.857	110.498	129.479	148.742	162.282	182.671	224.872	270.962
Capital Expenses	18.516	20.071	26.010	30.905	34.365	43.767	48.200	57.199	59.444	70.541
Other	7.818	10.016	15.629	12.509	15.543	16.802	18.258	21.771	21.637	26.632
Interest Expenses	**50.661**	**53.204**	**48.301**	**42.231**	**48.416**	**49.986**	**49.913**	**53.005**	**50.247**	**56.712**

Source, Republic of Turkey Ministry of Treasury and Finance, BUMKO

In 2008, the central government budget allocated 18.5 billion TL for capital expenditures and 3.2 billion TL for capital transfers.In 2008, the largest increase in non-interest budget expenditures occurred in capital expenditures due to investment spending in the GAP region. In this context, *"investment projects aimed at GAP and KOP were prioritized in 2008, and the GAP Action Plan for economic development and social progress was put into effect"* (HMB, 2009). Additionally, *"the increase in capital expenditures has been influenced by the investments made in regional development and energy sectors, primarily transportation investments, as determined by the YPK Decision, through the allocation of funds from the revenues obtained within the year under the temporary 23rd article of Law No. 4046"* (HMB, 2009).

The largest item in budget expenditures is current transfers. In 2009, the fastest-growing item in budget expenditures was current transfers, with an increase of 30.7%. The increase in personnel expenses, which is the second most important item, has been 14.5%.

Among the reasons for the increase in current transfers in 2016, it can be noted that transfers to households, duty losses, and transfers to non-profit organizations exceeded the budget allocation.

Personnel expenses increased by 13.3% in 2015 compared to the previous year, reaching 125,046 Thousand TL; state premium expenses for social security institutions increased by 11.2% to 21,042 Thousand TL; goods and services procurement expenses increased by 11.4% to 45,444 Thousand TL; current transfers increased by 12.6% to 182,787 Thousand TL; capital expenditures increased by 18% to 57,199 Thousand TL; capital transfers increased by 35.7% to 10,460 Thousand TL; and lending expenses increased by 7.4% to 11,333 Thousand TL. While the share of non-interest expenditures in the central government's budget expenditures increased from 88.9% to 89.5%, the share of interest expenditures continued to decline, falling from 11.1% to 10.5%.

In the 2015 budget, the personnel expenses, including state premium expenses for social security institutions, which were projected to be 140.2 billion TL, amounted to 146.1 billion TL. As determined in the collective agreement, in 2015, public personnel's salaries were increased by 3% in January and July. Additionally, the increase in personnel expenses was influenced by developments such as the provision of a 1.76% inflation difference in July, the hiring of more public personnel than planned in the annual budget, the appointment of teachers in February instead of the planned September in the budget, improvements in the personal rights of academic staff, military personnel, and judges and prosecutors, as well as the doubling of extra lesson hour fees and raising the weekly limit for extra lessons to 40 hours as part of the supplementary courses for teachers (SBB, 2016).

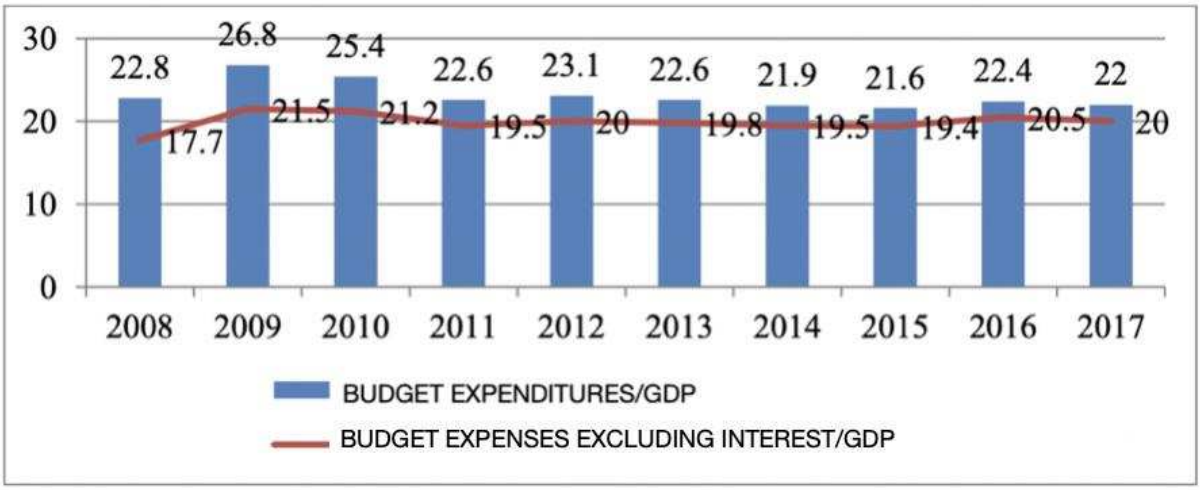
In 2015, the "Public Expenditure Rationalization Program Action Plan" was implemented with the aim of reviewing existing expenditure programs to "eliminate inefficient expenditures, allocate the financial space created in this way to priority expenditure areas, and keep budget expenditures excluding interest at a certain level." In this context, priority has been given to "infrastructure investments aimed at the sectors of transportation, education,

agriculture, health, technological research, drinking water, justice services, and the development of information and communication technologies (HMB, 2015).

In 2016, personnel expenses amounted to 148 billion 864 million TL, while state premium expenses for social security institutions were 24 billion 699 million TL (HMB, 2016).

In 2017, personnel expenses amounted to 162,139 Thousand TL, state premium expenses for social security institutions were 27,267 Thousand TL, goods and services procurement expenses were 63,470 Thousand TL, current transfers were 270,962 Thousand TL, capital expenses were 70,541 Thousand TL, capital transfers were 13,341 Thousand TL, lending expenses were 13,291 Thousand TL, and interest expenses were 56,712 Thousand TL.

Figure 5.3. Budget Expenditures to GDP Ratio and Budget Expenditures Excluding Interest Ratio to GDP Ratio between 2008-2017



Source: HMB, BUMKO

When looking at the development of the central government's budget expenditures as a percentage of GDP during the period from 2002 to 2017, it is observed that this ratio, which was 30.7% in 2002, fell to 22.8% in 2008. In 2009, due to the global crisis, the ratio of budget expenditures to GDP was 26.8%. In 2016, this rate decreased to 22.4%. The ratio of non-interest budget expenditures to GDP, which was 16.4% in 2002, increased to 20.5% in 2016 due to significant improvements in the health, education, and transportation sectors, increased support for the agriculture and real sectors, and the implementation of numerous new social programs.

5.3. Results Regarding Public Revenues

In 2007, within the framework of simplifying the tax system and ensuring tax justice, the tax deduction application for wage earners was abolished, and the minimum living allowance was introduced and implemented at the beginning of 2008. Again in 2007, in order to promote the tourism sector and increase its competitiveness, the VAT rate on certain goods and services related to the sector was reduced to 8%, effective from 2008 (HMB, 2008).

To reduce production costs, implement innovations in products and production processes, and accelerate the entry of foreign direct investments in R&D and innovation into the country, the tax incentive for R&D expenditures was increased from 40% to 100% with the enactment of Law No. 5746 on 01.04.2008." In the last months of 2008, some tax measures were taken to mitigate the effects of the global financial crisis, which also affected Turkey, to diversify funding sources, and to ensure the smooth flow of funds and liquidity. As part of these measures, the 10% tax on the buying and selling of stocks traded on the stock exchange by domestic investors has been reduced to zero. The law known as the Asset Peace, officially titled Law No. 5811 on the Reintroduction of Certain Assets to the National Economy, was enacted and came into force on November 22, 2008 (HMB, 2009).

In 2011, different audit units were brought together under the "Tax Audit Board." Reforms have been implemented to increase production capacity and combat the informal economy. In 2012, transactions related to lease certificates were exempted from tax. Tax incentives and premiums have been provided for agricultural products and the licensed warehousing system, and investment, production, and employment have been supported. The "Action Plan for Combating Tobacco and Tobacco Products Smuggling" has been implemented. The e-invoice application has been initiated to accelerate the transition to a registered economy. In 2015, the VAT legislation was simplified. With the new VAT implementation communiqué, an online system has been established for tracking VAT refund requests, measures against unjust refunds have been increased, and clear criteria for exit under special principles have been introduced. If we look at the reform-oriented regulations in 2017; strong production was aimed to be achieved by providing incentives and support for investments. The support provided to the real sector from the budget (employer's social security premium support, export incentives, investment incentives) has been increased.

Table 5.3. Central Government Budget Revenues Between 2008-2017 (Thousand TL)

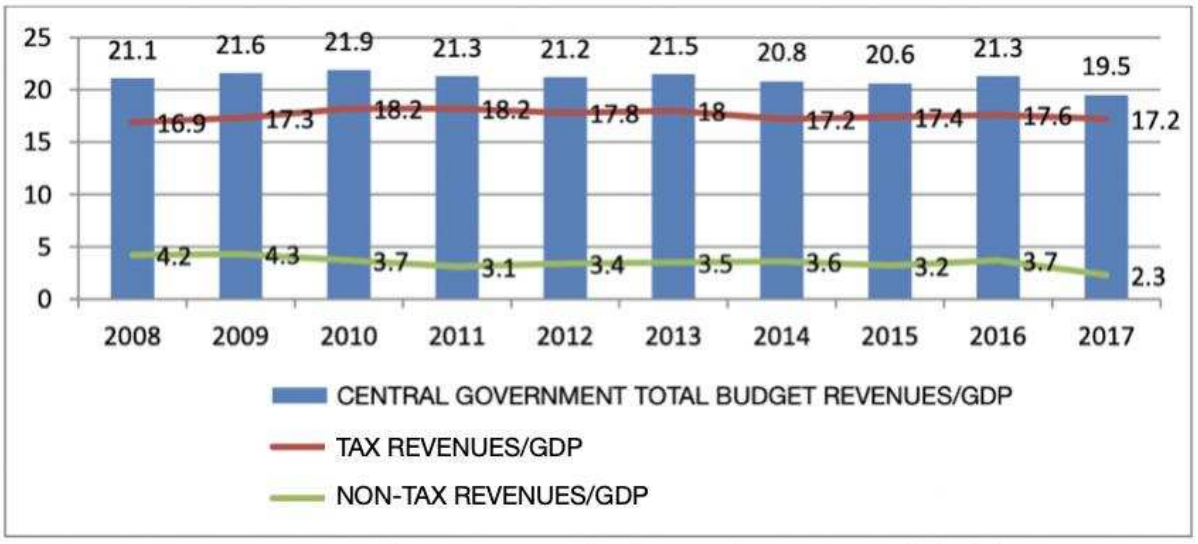
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Revenues	**209.598**	**215.458**	**254.277**	**296.823**	**332.474**	**389.680**	**425.382**	**482.779**	**554.431**	**630.349**
Tax Revenues	**168.108**	**172.440**	**210.560**	**253.809**	**278.781**	**326.169**	**352.514**	**407.818**	**458.658**	**536.048**
Direct Taxes	54.935	56.468	61.317	75.799	85.511	92.748	106.206	119.143	139.574	165.303
Indirect Taxes	113.173	115.972	149.243	178.010	193.270	233.421	246.308	288.675	319.084	370.745
Non-Tax Revenues	**34.917**	**36.170**	**35.491**	**32.744**	**41.754**	**49.394**	**56.161**	**56.369**	**73.887**	**71.167**
Regular Non-Tax Revenues	24.954	33.318	31.150	29.146	38.049	38.193	45.317	47.195	59.938	57.333
Capital Income	9.113	2.044	3.375	2.529	2.053	10.105	9.548	7.933	12.828	11.672
Grants and Aid Received	849,596	807,329	965,516	1.068	1.651	1.095	1.281	1.241	1.121	2.162
Special Budget and Regulatory & Supervisory Institutions Revenues	**6.571**	**6.847**	**8.225**	**10.269**	**11.939**	**14.118**	**16.706**	**18.592**	**20.767**	**23.134**

Source: HMB, BUMKO, SBB

In Table 5.3, the share of indirect and direct taxes within total taxes, as well as the shares of non-tax normal revenues, capital revenues, donations and aids received, special budget, and regulatory supervisory institutions within total taxes, are shown. Looking at the table, the amount of indirect taxes within total tax revenues in 2008 was 113,173 Thousand TL, while this figure continuously increased until 2016, reaching 319,084 Thousand TL in 2016. In the same years, the amount of direct taxes within total tax revenues was 54,935 Thousand TL in 2008, while in 2016 it had increased to 139,574 Thousand TL. The point to note here is the increasing weight of indirect taxes within the total taxes.

The growth rate of budget revenues, which slowed down in 2014, gained momentum again in 2015. In the increase in budget revenues, the rise in consumption demand, particularly supported by the VAT and SCT collected domestically, has been effective in the increase in tax revenues. The growth rate of non-tax revenues has been quite low compared to the previous year. The increase in non-tax revenues is largely due to the rise in enterprise and property revenues, with a collection of 4.6 billion TL under the item of second-type telecommunications licenses and general authorization revenues (frequency auction for 4.5 G technology in mobile communication) being particularly effective in this regard (TOBB, 2015).

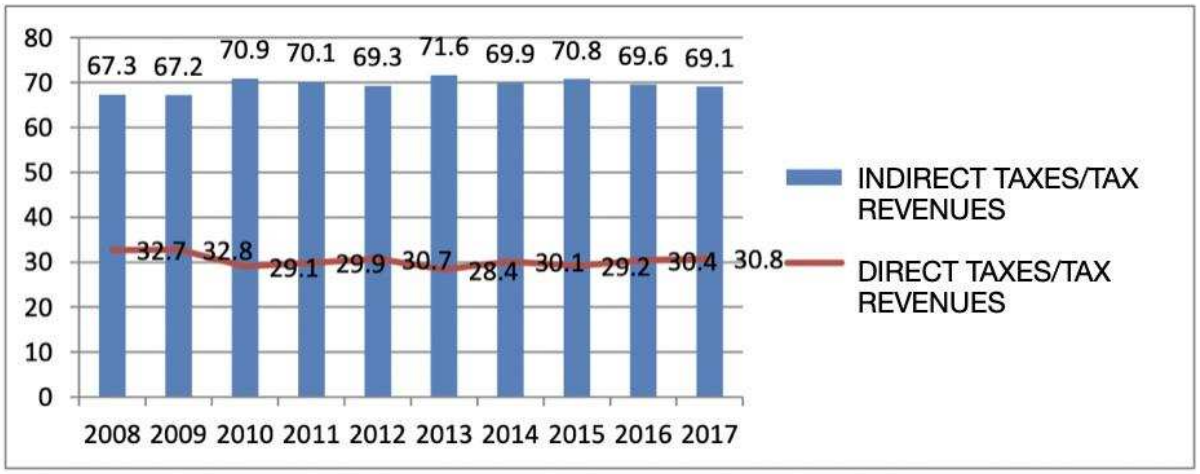
Figure 5.4. Ratio of Central Government Budget Revenues to GDP, Tax and Non-Tax Revenues to GDP between 2008-2017



Source: HMB, BUMKO, SBB

In the above Figure 5.4., when looking at the development of the central government's public revenue as a percentage of GDP for the period from 2008 to 2017, it was 21.1% in 2008, decreased to 20.6% in 2015, and was 21.3% in 2016. In 2017, it is estimated to be 18.9%. When looking at the ratio of general budget tax revenues to GDP, this ratio, which was 16.9% in 2008, increased to 17.4% in 2015 and is estimated to be 17.1% in 2017. Similarly, the ratio of non-tax revenues in the general budget to GDP was 4.2% in 2008, but it decreased to 3.7% in 2016.

Figure 5.5. Share of Central Government Direct and Indirect Taxes in Tax Revenues Between 2008-2016 (%)



Source: Created from the above data.

If we look at the shares of indirect and direct taxes in tax revenues; between 2008-2016, the share of indirect taxes in tax revenues was 70.9% in 2010, 71.6% in 2013, and 69.6% by 2016. The share of direct taxes in tax revenues has shown small fluctuations over the years and was recorded at 30.4% in 2016.

5.4. Results Regarding Public Debt

In our country, the "Ministry of Treasury" conducts and monitors the borrowing relationships on behalf of the state in accordance with the "Law on the Regulation of Public Finance and Debt Management No. 4749." According to this law, which is fundamental in nature regarding public borrowing, the domestic debt of the state is defined as "the domestic government bonds issued by the Ministry, the borrowings made from domestic markets to meet the Treasury's temporary cash needs, and any financial obligations undertaken by the Ministry, regardless of whether they are related to the bond" (Pehlivanoglu and Isik, 2014).

With the borrowing policy, it is aimed to follow a borrowing policy that is in line with monetary and fiscal policies, sustainable, transparent, and accountable, in accordance with the medium and long-term goals of debt management, by evaluating economic conditions and market developments both domestically and internationally. In addition, the principle of "meeting financing needs at the most optimal cost in the medium and long term, within a reasonable risk level, taking into account domestic and international market conditions and cost factors, has been the basis of debt management practices" (HMB, 2014).

The years 2008 and 2009 were an extraordinary period for debt management worldwide. The use of expansionary fiscal policies in the context of combating the crisis has raised the issue of meeting the significantly increased financing needs, and public debt stocks have rapidly increased. In parallel with global developments, the contraction of borrowing opportunities and the stagnation of economic activity due to the crisis led to a decrease in the external debt stock in our country in 2009 (HMB, 2010).

The most important determinant in determining the central government's debt stock has been the reduction of the country's debt situation's sensitivity to external macroeconomic shocks. This became most apparent in 2013, a time when issues in public finance were increasing in developed countries (HMB, 2013).

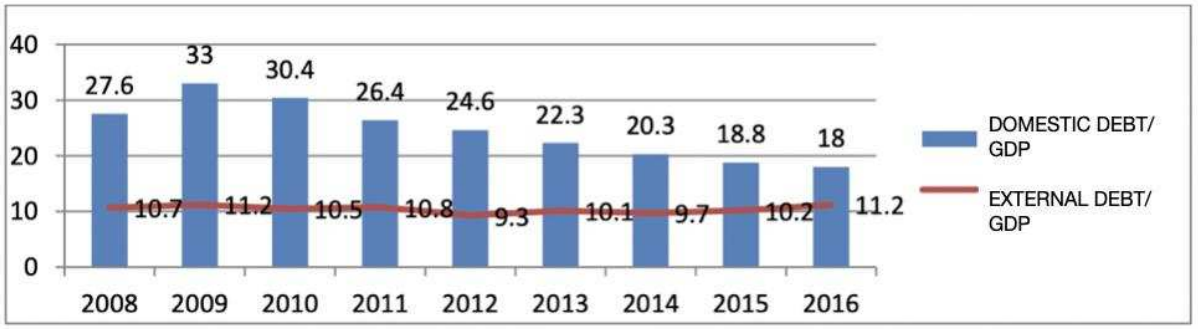
Table 5.4. Central Government Domestic and Foreign Debts Between 2008-2016 (Million TL)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
DOMESTIC DEBT	274.827	330.005	352.841	368.778	386.542	403.007	414.649	440.124	468.644
EXTERNAL DEBT	106.002	112.044	121.305	150.291	146.359	183.185	197.868	238.121	291.306

Source: BUMKO

Looking at the internal and external debt figures of the central government shown in the Table 5.4, it can be seen that the internal debt figure, which was 274.827 Million TL in 2008, has steadily increased over the years, reaching 468.644 Million TL in 2016. When looking at external debts, a similar trend is observed, and in 2008, external debt increased from 106.002 million TL over the years, reaching 291.306 million TL in 2016.

Figure 5.6. Central Government Domestic Debt and External Debt Stock to GDP Ratio for 2008-2016



Note: Based on 2009.
Source: BUMKO

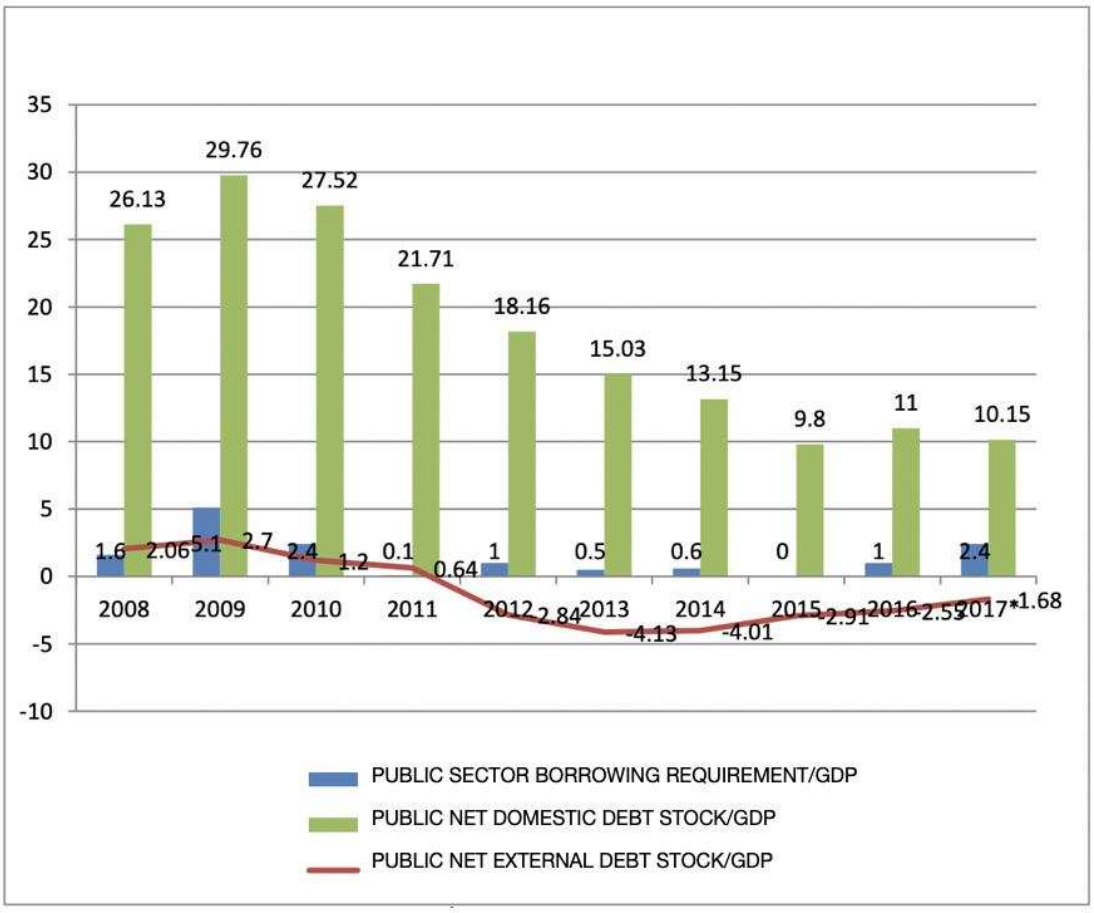
The trend of the internal debt stock to GDP ratio, which has been declining since 2002, continued until 2008. However, after 2008, it increased again to 33% in 2009 due to the impact of the crisis. The aforementioned rate has shown improvement due to the public deficit, recovering in 2010 and subsequent years, and reaching 18% in 2016. When looking at the ratio of external debt stock, the rate, which was 11.2% in 2009, has shown fluctuations in other years and maintained the same level of 11.2% in 2016.

However, the ratio of the public net domestic debt stock to GDP was 29.76% in 2009, and by the end of 2010, it had decreased to 27.52%. This rate continuously decreased until 2015 and

reached 9.8% in 2015. In 2016, it increased again to 11%. In addition to these, the increasing internal debt rollover rates in 2009, due to the decrease in non-borrowing resources, began to be reduced in 2010 with the increase in non-borrowing resources and the decrease in interest rates.

As a result of the borrowings predominantly made from the market and the redemption of non-cash bonds that matured in 2010, the market's share in the domestic debt stock increased from 81.5% at the end of 2009 to 85.4% at the end of 2010, while the public's share decreased from 18.5% to 14.6% during the same period. As of the end of 2010, the entire external debt stock of 78.1 billion USD consisted of long-term external debts defined as having a maturity of 5 years or more. On the other hand, the debt stock to the IMF was 8 billion USD at the end of 2009, but it decreased by 2.3 billion USD to 5.6 billion USD by the end of 2010 (HMB, 2010).

Figure 5.7. Ratio of Domestic and External Debt Stock to GDP and Ratio of Public Sector Borrowing Requirement to GDP between 2008-2017 (%)



Source: HMB, Republic of Turkey Ministry of Treasury and Finance

Note: 2017 figures are provisional.

Similarly, the ratio of the public net external debt stock to GDP was 2.7% in 2009, but this ratio fell to 0.64% in 2011. In 2014, it increased again compared to 2013, reaching 4.1%, and in the following years, it continued to rise, reaching 2.55% in 2016.

The primary reason for the increase in debt stocks over the 2017 has been the significant appreciation of the US dollar against the Turkish lira, leading to a rise in the TL equivalents of dollar-denominated debts, which hold the largest share among foreign currency debts (HMB, 2017).

The ratio of the public sector's borrowing requirement to GDP, which was at 10% in 2002, was -1.9% in 2006, 0.1% in 2007, and 1.6% in 2008. However, due to the global crisis, the public sector's borrowing requirement rose to 5% in 2009. Subsequently, the strong recovery in the economy positively affected public financial balances, and the need for public sector borrowing decreased to 2.4% in 2010 and 0.1% in 2011. The rate, which was 1% in 2012, decreased again to 0.5% in 2013. In 2014, the ratio of the public sector's borrowing requirement to GDP was 0.6%, and in 2015, it was 0%. In 2016, the public sector borrowing requirement, which was 1% of GDP, is expected to rise to 2.4% in 2017.

As a result, the increase in the central government's budget deficit due to the decrease in budget revenues and the increase in expenditures, along with the decline in the central government's non-interest surplus, is raising the need for public borrowing.

5.5. Privatization Results

Privatization efforts “began in 1984 with the transfer of unfinished public facilities to the private sector for completion or the establishment of new facilities in their place. Since 1986, under the program accelerated by including the public shares in fully state-owned or state-participated enterprises within the scope of privatization, the Administration has conducted stock or asset sale/transfer transactions in 216 enterprises until 2015, and there are no public shares left in 207 of these enterprises” (OIB, 1992). The total amount of privatization practices carried out from 2002 to 2015 is at the level of $59.406 billion.

On January 29, 2008, Türkiye Iron and Steel Enterprises Inc. was merged into Sümer Holding Inc. and its legal entity was terminated. TTA Real Estate Inc., on October 21, 2016, was merged with Sumer Holding Inc., resulting in the termination of its legal entity. In 2008, the legal entity of Turkish Arab Marketing Inc. was dissolved. In 2009, the shares of Sumer

Carpet Inc. were merged under Sumer Carpet Inc., leading to the termination of its legal entity."In 2009, the shares of Sumer Carpet Inc.. were merged within Sumer Holding Inc, and its legal entity was dissolved (OIB, 1992).

In 2008, especially from the public offering of Turk Telekom, 1 billion 911 million dollars were obtained, and with the transfer of 51% of PETKIM's shares, 2 billion 40 million dollars were earned. The 2008 privatizations, with the sale of 15% of Türk Telekom in May, despite the global financial crisis that emerged in the second half of 2008, included the sale and transfer of PETKIM, Tekel Cigarettes, electricity plants belonging to Ankara Natural Electricity Production and Trade Inc., TEDAS, and Tekel's real estate properties, as well as the primary public offering of 15% of Türk Telekomünikasyon A.S. in national and international capital markets. The public offering of the 15% stake of Turk Telekom was the largest public offering in Turkey in 2008 and also the most notable public offering among developing countries. In 2009, the privatization processes of Sakarya Electricity Distribution Co., Baskent Electricity Distribution Co., as well as various real estate properties belonging to Tekel, TEDAŞ, and Turkish Sugar Factories were completed.In 2009, the privatization efforts for various real estate properties belonging to Sakarya Electricity Distribution Inc., Capital Electricity Distribution Inc., Tekel, TEDAS, and Turkish Sugar Factories were completed (Bal, 2013).

When looking at the liberalization of the energy sector and the privatization of electricity generation; in accordance with the priority mentioned in Article 10 of the Electricity Sector Reform and Privatization Strategy document, it was planned to start the privatization of electricity generation after the completion of the distribution privatization process. In this context, the only electricity generation privatization that has been carried out so far is the Ankara Natural Gas Production Joint Stock Company (ADUAS), which has a total capacity of 140 MW consisting of seven hydroelectric plants, one geothermal plant, and one natural gas plant. Zorlu Energy won the tender held on March 5, 2008, for 510 million dollars. Within the framework of this privatization, Zorlu Energy, the winning bidder, has acquired the thirty-year operating rights of the Engil Gas Turbine Power Plant (Van, 15 MW), Kuzgun Hydroelectric Power Plant (Erzurum, 20.9 MW), Cıldır Hydroelectric Power Plant (Kars, 15.4 MW), Ikizdere Hydroelectric Power Plant (Rize, 18.6 MW), Mercan Hydroelectric Power Plant (Tunceli, 19.2 MW), Tercan Hydroelectric Power Plant (Erzincan, 15 MW), Atakoy Hydroelectric Power Plant (Tokat, 5.5 MW), Beykoy Hydroelectric Power Plant (Eskisehir,

16.8 MW), and Turkey's largest geothermal power plant (15 MW) operating in Denizli (Karagoz, 2009).

In terms of privatization practices in 2010, it was a year when the 100% shares of Osmangazi, Uludag, Camlıbel, Coruh, Yesilırmak, and Firat Electricity Distribution Companies were block sold, the Camaltı and Ayvalik Saltworks owned by Tobacco, Tobacco Products, Salt, and Alcohol Enterprises Inc. (TTA) were privatized through the sale and transfer of operating rights, the Samsun and Bandırma ports owned by the General Directorate of Turkish State Railways (TCDD) were privatized through the transfer of operating rights, the machinery and equipment of the Taşucu Enterprise owned by Sümer Holding were sold as facilities and assets, and various real estates owned by TTA, Turkey Electricity Distribution Inc. (TEDAS), Turkey Sugar Factories Inc. (TSFAS), and TCDD were sold. While the total amount of privatization transactions completed in 2009 was at the level of 2.3 billion dollars, this amount reached the level of 3.1 billion dollars by the end of 2010. In 2009, the total amount of privatization transactions completed was at the level of 2.3 billion dollars, while this amount reached 3.1 billion dollars by the end of 2010 (SBB, 2011).

As of November 2011, privatization has been carried out at the level of 341 million dollars. Among the major privatizations during this period are some river power plants belonging to EUAS, the Sumer Holding Mazıdagı Phosphate Facilities, and real estate belonging to various organizations. In 2011, the total amount of privatization transactions completed through sale/transfer was at the level of 1.4 billion dollars. As of November 2012, privatization worth 3 billion dollars has been carried out. Among the major privatizations during this period were the 23.9% public share of Turkish Halk Bank Inc., the 76.8% public share of Acipayam Cellulose Industry and Trade Inc., the 10.3% public share of PETKIM Petrochemical Holding Inc., the 20% public share of Kayseri ve its Vicinity Electric T.A.Ş., and the sale of various real estate properties belonging to other institutions. In 2012, the total amount of the privatization transactions completed was at the level of 3 billion dollars. In 2012, the total amount of privatization transactions completed was at the level of 3 billion dollars (SBB, 2012).

As of December 2013, privatization at the level of 12.5 billion dollars has been carried out. Among the major privatizations during this period were the block sale of Başkent Natural Gas Distribution Inc. and Hamitabat Electricity Generation and Trade Inc., the sale of the Seyitomer and Kangal thermal power plants owned by EUAS, the sale of the Bogazici, Gediz,

Istanbul Anatolian Side, Mediterranean, Dicle, Van Lake, Aras, and Toroslar Electricity Distribution Inc. owned by TEDAS, the transfer of the operating rights of ten river power plants owned by EUAS, and the sale of various real estate owned by other organizations. In 2013, the total amount of the privatization practices completed through sale/transfer was at the level of 12.5 billion dollars. In 2013, the total amount of privatization transactions completed was at the level of 12.5 billion dollars (SBB, 2014).

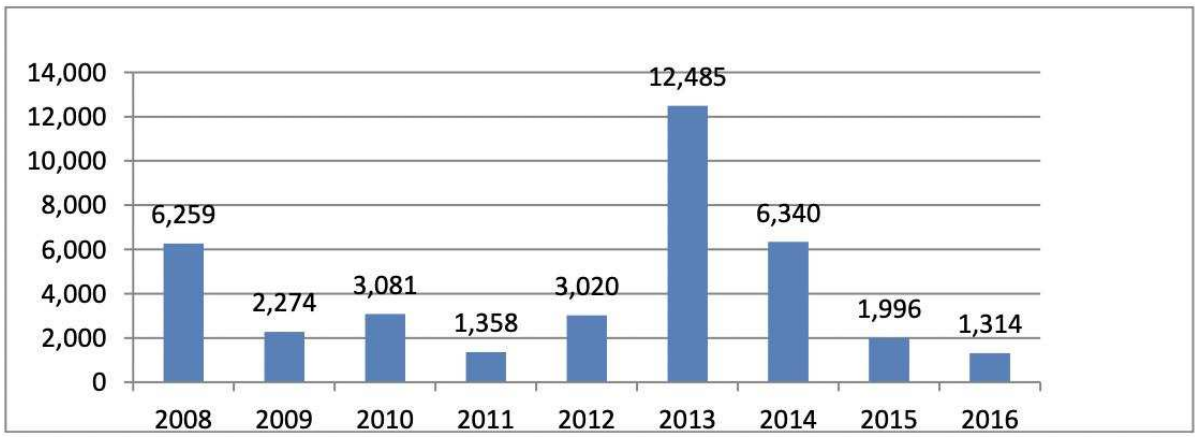
TTA Real Estate Inc., which is included in the scope and program of privatization, was merged with Sumer Holding Inc. with the approval of the Privatization Administration (ÖİB) dated 26/08/2016, and the company's legal entity was terminated. Among the organizations included in the privatization scope and program, TEMSAN was included under Law No. 233 by the Privatization High Council (OYK) Decision dated 17.04.2017, and TEDAS was included under Law No. 233 by the OYK Decision dated 25.04.2017. With the decision of the BKK dated 24.01.2017 and numbered 2017/9756, it was decided to transfer BOTAS, TPAO, Eti Maden Isletmeleri General Directorate, and CAYKUR to the Turkey Wealth Fund. On the other hand, with the Decisions of the OYK dated 03.02.2017, the 49% share of TDI A.S. and the TCDD Ozmir Port were removed from the privatization scope and program and transferred to the Turkey Wealth Fund (Official Gazette, 2017).

The share transfer transactions of Turkish Petroleum Petroleum Distribution Inc., which was privatized in 2016, were completed in 2017. The privatization processes of some hydroelectric power plants and their associated properties of EUAS, whose tender processes have been completed, the Gulluk and Tasucu Ports owned by TDI Inc, the shares of TDI Inc. in the capital of Mersin Free Zone Founder and Operator Inc. (MESBAS), and the public shares in Hydrogen Peroxide Industry and Trade Inc. are at the approval or contract signing stage (Official Gazette, 2017).

Below, the Figure 5.8. shows the privatization developments between the years 2008-2016. During these years, a total revenue of 38,127 million dollars was generated.

In short, since 1985, public shares in 272 enterprises, 2,330 properties, 10 highways, 2 strait bridges, 146 facilities, 7 ports, the right to operate games of chance, and vehicle inspection stations have been included in the privatization scope (OIB, 1992).

Figure 5.8. Privatization Revenues Between 2008-2016 (Million Dollars)



Source: OIB, https://ms.hmb.gov.tr/uploads/sites/6/2024/10/yillar-itibariyle-uygulama-.pdf

CONCLUSION

In conclusion, Turkey's experience during the 2008 global financial crisis highlights the adaptive strategies that an emerging economy can implement to withstand significant global economic disruptions. Initially, Turkey benefitted from a period of financial discipline, which had been established through IMF-supported structural reforms in the early 2000s. However, as the crisis escalated, it became apparent that new, targeted fiscal interventions were necessary to address the adverse effects of declining exports, reduced foreign direct investment, and contracting domestic demand. These fiscal measures, rooted in Turkey's prior experiences with economic volatility, set a foundation for a carefully calibrated response that sought to balance fiscal responsibility with urgent economic stabilization.

Public expenditure policies formed the backbone of Turkey's fiscal response. Targeted measures, such as temporary reductions in VAT and Special Consumption Tax (SCT) on consumer goods, provided immediate relief to both businesses and households, helping to sustain consumer demand during a time of widespread economic contraction. Additionally, government investments in infrastructure projects helped to create jobs and stimulate economic activity, providing a crucial boost to sectors like construction, which played a key role in offsetting the negative impacts felt in export-driven industries. These expenditures not only mitigated the initial shock but also supported Turkey's economic resilience by sustaining employment and purchasing power during a critical period.

Labor market interventions were another essential component of Turkey's response to the 2008 crisis. With unemployment on the rise, the government introduced policies such as short-term work allowances and employer social security contribution subsidies. These measures not only helped to prevent further job losses but also sustained household income levels, thereby supporting domestic consumption and alleviating the social impact of the crisis. By focusing on maintaining employment levels, Turkey demonstrated a commitment to stabilizing the labor market, which, in turn, bolstered consumer confidence and economic stability.

On the revenue side, Turkey implemented tax incentives and restructuring programs aimed at providing liquidity relief to businesses and encouraging private sector investment. These policies included extensions on tax payment deadlines, reductions in corporate tax rates, and opportunities for businesses to restructure their debts, which helped to sustain private sector operations during a challenging economic climate. These revenue adjustments underscored the government's proactive approach to ensuring that businesses, especially small and

medium enterprises, could navigate the crisis while still contributing to overall economic activity.

Turkey's experience with the 2008 financial crisis provides valuable insights into the importance of flexible and regionally adaptable fiscal policies for emerging economies. The crisis underscored the necessity of both local fiscal agility and international cooperation in managing global economic shocks. By prioritizing targeted public expenditures, labor market support, and strategic revenue policies, Turkey managed to mitigate the immediate effects of the crisis and lay the groundwork for sustained economic recovery. Moving forward, this case offers lessons on the need for a responsive fiscal framework, one that balances fiscal discipline with adaptable interventions to foster resilience in a rapidly changing global economy.

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