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GREECE AND THE EURO
From Crisis to Recovery

Edited by
George Alogoskoufis and Kevin Featherstone

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GREECE AND THE EURO

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Chapter 3. Greece Before and After the Euro: Macroeconomics, Politics and the Quest for Reforms

George Alogoskoufis

Abstract

This paper analyses developments in the Greek economy before and after the euro. The main thesis is that the imbalances that led to the crisis of the post-2010 period were building up during the previous three decades and that their root causes were not merely economic, but social, structural, institutional and political. The fiscal imbalances created in the 1980s were not adequately addressed by the convergence policies of the 1990s, while the long-standing problem of low international competitiveness was further exacerbated by the failure to promote the necessary structural reforms. Greece's accession to the euro area with major structural and fiscal imbalances and low and deteriorating international competitiveness, led to a steep rise in its external indebtedness. The lopsided adjustment and the inadequacy of the reforms was due to domestic political and social constraints, both before and after euro area entry. In view of the institutional weaknesses of the euro area itself, the external imbalances ultimately led to the external debt crisis of 2010, the imposition of the economic adjustment programs and the 'great depression' of the 2010s. The paper also explores the prerequisites for a sustained recovery of the Greek economy within the euro area, once the global economic crisis induced by the coronavirus pandemic is over. The quest for wide ranging reforms remains Greece's top priority.

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1. Introduction

The year 2021 marks the 40th anniversary of Greece's accession to the European Union (then the European Economic Community) and the 20th anniversary of its accession to the euro area.

In 2010, just a decade after joining the euro area, the Greek economy faced its most serious peacetime economic crisis, which in turn led to the 'Great Depression' of the 2010-2016 period.

This paper analyses the underlying macroeconomic imbalances and structural weaknesses that led the Greek economy to this severe crisis both before and after euro area participation. It also aims to explore the potential of the Greek economy to recover while remaining in the euro area, once the new global economic crisis due to the coronavirus pandemic is over.

The main thesis of this paper is that the crisis of 2010 period was building up for at least three decades and that its root causes were not merely economic, but social, structural, institutional and political.

Greece's accession to the European Union in 1981 was followed by twenty years of stagflation, destabilisation and ineffective economic adjustment. The fiscal imbalances created in the 1980s and the perennial structural weaknesses of the economy were not adequately addressed by the convergence policy of the 1990s, which was mainly based on a restrictive monetary policy. In addition, the problem of low international competitiveness of the Greek economy was exacerbated by the weaknesses of the adjustment efforts.

Greece's accession to the euro area in 2001, with significant structural and fiscal imbalances and low and deteriorating international competitiveness, led to the gradual destabilisation of its external position. This took the form of large and persistent current account deficits and a steep rise in external indebtedness.

The imbalances became worse during the international financial crisis and the 'great recession' of 2007-2009. Combined with the institutional weaknesses of the euro area, they ultimately led to the 2010 external debt crisis and the imposition of the painful economic adjustment programs.

Unfortunately, the adjustment programs of the decade after the crisis of 2010 were limited to the surface of the problems faced by Greece. They did not succeed in addressing the underlying structural, social, institutional and political causes of many of the imbalances and weaknesses of the Greek economy and the euro area itself. Moreover, due to their exclusive reliance on austerity, they contributed decisively to the deepest and longest recession of the Greek economy, the 'great depression' of 2010-2016.

The recovery of the Greek economy after 2017 had been weak and in no way sufficient to compensate for the large output losses of the long depression period. Even worse, while the Greek economy seemed to have entered a mild economic recovery, in 2020 a new major international crisis broke out, due to the coronavirus pandemic (Covid-19). This crisis, which is still developing at the time of writing, poses major new challenges for the Greek economy and the euro area, which are addressed at the end of the paper.

2. The Crisis of 2010 and the 'Great Depression' of the Greek Economy

The 'sudden stop' in international lending and the crisis of 2010 were anything but 'sudden' for Greece. They took place in the aftermath of the international financial crisis of 2007-09, but they were mainly due to the persistent and large macroeconomic and structural imbalances of the Greek economy. These imbalances had accumulated during the three decades preceding the crisis, due to the inability of Greek policy makers to adopt effective policies and reforms for their timely and effective correction.

Macroeconomic imbalances became even more pronounced after Greece's accession to the euro area, due to the constraints and weaknesses of the euro area itself. Before the crisis, they manifested themselves mainly as a problem of large persistent current account deficits, and, after the international financial crisis of 2007-2009, as a 'sudden stop' of external lending to Greece.

The crisis could have happened earlier, postponed, or even avoided in this form and to this extent. However, the structural and macroeconomic adjustment of the Greek economy was an undeniable necessity, which should have been addressed before Greece joined the euro area and lose access to the very important and useful tools of monetary and exchange rate policy.

After entry to the euro area, Greece faced a stark policy dilemma. Because of its low international competitiveness, attempts to address the external imbalances through a restrictive fiscal policy, would lead to recession. Attempts to avoid a fiscally induced recession, led to the persistence of external imbalances. Greece, like other economies in the periphery of the euro area, was caught up in a *Mundellian trap*.[1]

The Apparent Causes of the Crisis

The structural weaknesses of the Greek economy, the contradictions of the economic policy adopted by successive Greek governments after the country's accession to the European Union in 1981, and the institutional deterioration that occurred after 1981, under the pressure of the social and political dynamics that emerged after the restoration of democracy in 1974, were among the key factors that helped destabilise the Greek economy and create the conditions that ultimately led to the 2010 crisis.

Undoubtedly, however, and despite the fact that the imbalances and structural weaknesses of the Greek economy and Greek political and administrative institutions played the leading role, the Greek crisis was exacerbated by the significant structural and institutional weaknesses of the euro area itself. The euro area is far from being an 'optimal currency area'

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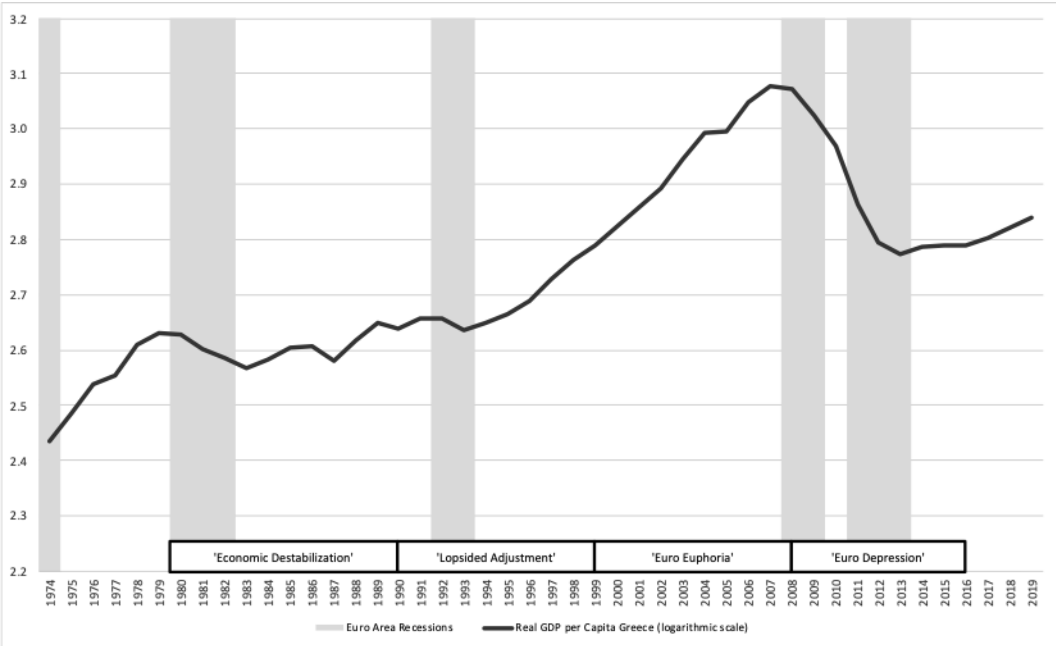
[1] I call this situation a *Mundellian trap* as it essentially the conflict between internal and external balance, first analysed by Mundell (1963). In a small open economy with low international competitiveness, a fixed exchange rate under full capital mobility implies the ineffectiveness of monetary policy. Aggregate demand can be affected only by fiscal policy, but its use results in a conflict between output and employment and the current account. The trap is starker for a small open economy which participates in a monetary union, because in a monetary union an economy does not have access to the safety valve of a one-off devaluation, that could be employed in a fixed exchange rate regime with adjustable central parities.

Figure 1. The Evolution of Real GDP per Capita in Greece, 1974-2019
(Thousand 2015 euros, logarithmic scale)



Source: EU Commission, AMECO Database (November 2020)

and it is no wonder that it proved particularly vulnerable after the international financial crisis peaked in September 2008.

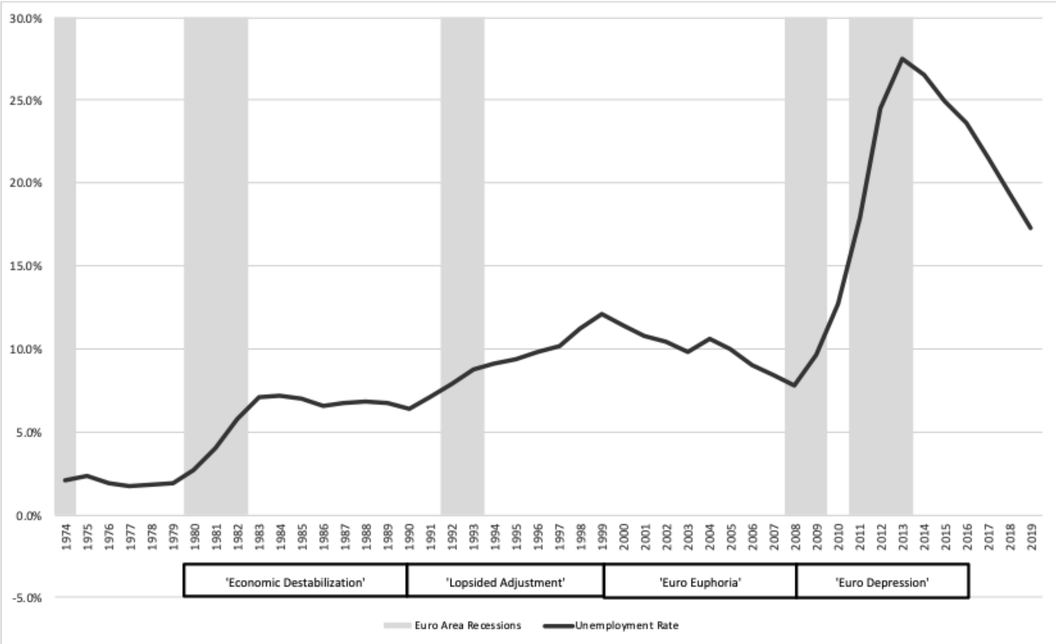
The 'Great Depression' of the Greek Economy

With the outbreak of the Greek crisis in early 2010, the euro area authorities hastily put together an inter-governmental lending program to 'rescue' the Greek economy, through official borrowing from the other economies of the European Union. Greece was forced to adopt the first of a series of front-loaded macroeconomic adjustment programs designed by the so-called 'troika' of the International Monetary Fund (IMF), the European Commission (EU) and the European Central Bank (ECB).

These programs, which were enshrined in three successive 'memoranda' between Greece and its euro area partners, gradually and partially addressed some of the more apparent external and fiscal imbalances of the Greek economy. However, due to the bad initial conditions and the weaknesses and contradictions of the programs themselves, they also led to an extremely deep and long economic depression. A 'great depression' of the Greek economy that had no precedent in peacetime.

As demonstrated in Figure 1, after a period of relatively high growth between 1994 and 2007, during the Great Depression of 2008-2016 Greece's real GDP per capita fell by almost a quarter. This was a much longer and deeper recession than in the rest of the euro area.

Figure 2. The Evolution of the Unemployment Rate in Greece, 1974-2019
(% of labor force)



Source: EU Commission, AMECO Database (November 2020).

The unemployment rate, the evolution of which is depicted in Figure 2 quadrupled. It peaked at 27.9% of the workforce in July 2013, up from 7.3% in May 2008, and has since declined at an extremely slow pace.

Millions of Greeks faced the spectrum of poverty, as real wages and pensions in Greece were cut sharply, horizontally and at a significant percentage. Hundreds of thousands of educated and skilled Greeks, mainly the younger generation, immigrated to other EU countries or the rest of the world, as finding a suitable and well-paid job in Greece became very difficult, if not impossible. Greek society and the political system were shaken to their roots.

Yet, as we shall demonstrate in this paper, this was the low point of an economic tragedy that had been gradually evolving since at least the early 1980s.

Four Cycles of Destabilisation and Lopsided adjustment

In the sections that follow, we document that, on the basis of macroeconomic analysis and the available data, the crisis of 2010 was building up for at least three decades before its outbreak in 2010. We also argue that its root causes were not only economic, but also social, institutional and political.

The paper first traces the cycles of destabilisation and lopsided adjustment of the Greek economy since the restoration of democracy in 1974 and the country's accession to the European Union in 1981 and, subsequently, its entry into the euro area in 2001.

It also documents that the adjustment programs of the decade after the outbreak of the 2010 crisis, focused on a one-sided ‘austerity’ policy that only addressed the surface of the country's external and fiscal imbalances, without tackling the structural, social, institutional and political roots of many from the weaknesses and imbalances of the Greek economy.

The Deeper Causes of the Crisis

Documenting and describing developments and problems is only an intermediate goal of the analysis of this paper. The ultimate goal is to highlight and analyse both the weaknesses and contradictions of the economic policies pursued in Greece after 1981, as well as the deeper structural, social, institutional and political causes of these weaknesses and contradictions.

For this reason the paper addresses both the macroeconomic imbalances and the structural, social, institutional and political characteristics of the cycles of the past 45 years. Based on the conclusions that emerge, we refer to the economic, institutional and political preconditions for a sustainable recovery of the Greek economy, without the weaknesses and regressions of the past.

The paper is based on the modern macroeconomic approach to the analysis economic growth, economic fluctuations and economic crises. The description and interpretation of developments in Greece and the rest of the euro area is based on the officially available statistics published by the European Statistical Service (Eurostat).[2]

As the analysis is not limited to the economic dimension of the problems at hand, it adopts a new political economy approach into the less visible structural, social, institutional and political causes behind the developments and choices that led to the 2010 crisis and the ‘great depression’ in Greece.

For this reason, the structural weaknesses of the Greek economy, as well as the institutional weaknesses of the state and the political system, which, to a large extent, determined and limited the choices of economic policy, play a central role in the analysis that follows.

3. The Greek Economy after EU Accession

In the 30 years before Greece entered the EU, the real per capita output (GDP) of Greece rose almost fivefold, from €2.8 thousand constant euros of 2015 in 1950, to €13.8 thousand in 1980. The annual growth rate of real per capita output was 5.6%. In the subsequent 30 years, after Greece had become a member of the European Union, the real per capita income of Greece rose by only 1.4 times. From €13.8 thousand (constant euros of 2015) in 1980, to €19.5 thousand in 2010. The annual growth rate of real per capita output fell to 1.2%. This slowdown was much larger and abrupt than would have been expected on the basis of convergence to

[2] Given the problems that have arisen with respect to the credibility of ‘Greek statistics’ in the past, it is imperative that any analysis of the Greek economy is based on data officially endorsed by Eurostat, the statistical arm of the European Commission.

lower steady state growth. In the ten years since the international crisis of 2008, the real per capita income of Greece has displayed even worse trends because of the 'great depression'. In 2016, the last year of the 'great depression', it had fallen to €16.2 thousand, almost 25% lower than its peak level of 2007.

One can distinguish between four consecutive ten-year policy cycles after Greece's accession to the EU in 1981. These four cycles are marked clearly in Figure 1 and most of the figures that follow.

While the Greek economy recovered strongly following the first oil shock and the recession of 1974, following the second oil shock and accession to the EU, it entered a long period of stagflation and fiscal destabilisation. This was the first cycle of four cycles that have characterised the 40 years since EU accession. It was followed by a ten year cycle of lopsided adjustment, a cycle of 'euro euphoria' following euro area entry and, finally, the cycle of the 'euro depression'.[3]

The first three cycles, despite their differences, made a critical contribution to the emergence of the conditions that led to the 'great depression' of the Greek economy, and to the economic, social, institutional and political problems and dilemmas that still characterise the Greek economy today.

Economic Destabilisation

The first cycle, a cycle of *economic destabilisation*, prevailed in the 1980s. It was characterised by an excessively expansionary mix of macroeconomic policy. The excessively expansionary fiscal, incomes, and monetary policies and the rise in the economic role of the state proved destabilising in the medium term but also ineffective in the short-term. This proved to be a period of stagflation, fiscal destabilisation and external imbalances.

The end result was the further weakening of the already distorted and weak productive potential of the Greek economy, despite the excessive expansion of aggregate demand.

The evolution of inflation is depicted in Figure 3. Inflation rose significantly in the aftermath of the second oil shock of the 1970s and remained high throughout the1980s, due to the expansionary monetary and fiscal policy.

Immediately after accession to the EU in 1981, there was a major change of government, with the election of a PA.SO.K government under Andreas Papandreou. The negative effects of the second international oil crisis were still fresh. Yet, the new government adopted a policy mix of expansionary income, fiscal and monetary policies and an expansion of the economic role of the state. These choices initially led to a decade of fiscal and monetary instability, economic

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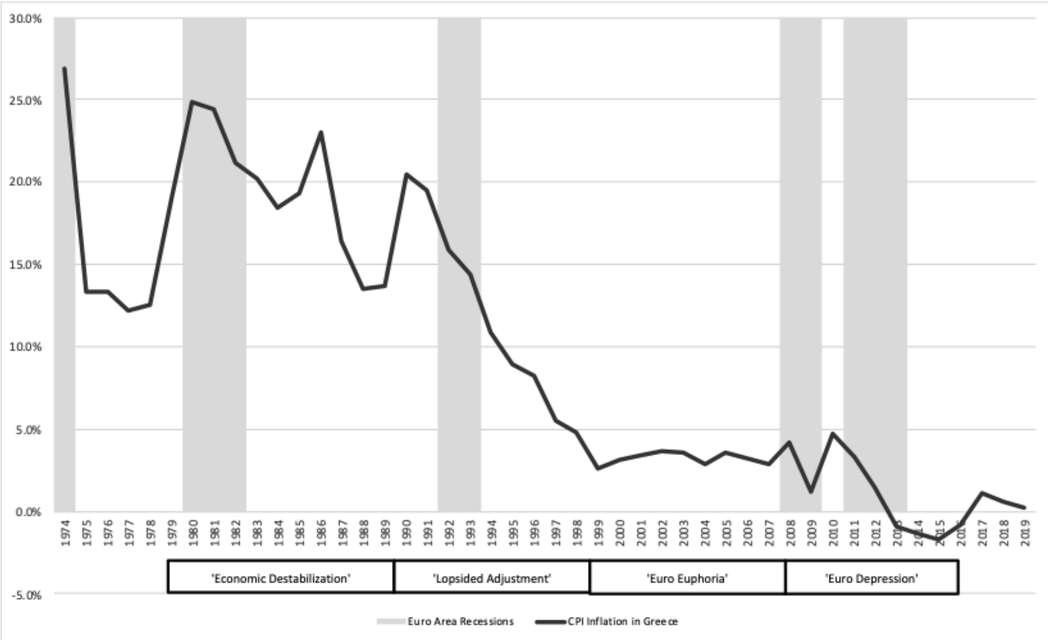
[3] These cycles are briefly analysed below. For a more extensive analysis and discussion see Alogoskoufis (2019). The international literature on the Greek economy has grown exponentially since the sovereign debt crisis of 2010. See, among others, Krugman (2010), Featherstone (2011), Arghyrou and Tsoukalas (2011), Alogoskoufis (2012), Ardagna and Caselli (2014), Monastiriotis (2014), Galenianos (2015), Orphanides (2015), Ioannides and Pissarides (2015), Roukanas and Sklias (2016), Gourinchas et al. (2017), Meghir et al (2017), Alogoskoufis (2019), Christodoulakis (2019), Leounakis and Sakellaris (2019), Louri and Migiakis (2019), Economides et al (2020), Andriopoulou et al (2020). Zettelmeyer et al. (2013) concentrated on the debt restructuring of 2012. Reinhart and Trebesch (2015) focused on a historical comparison of the 2010 crisis with previous Greek defaults since the 19th century.

Figure 3. The Evolution of Consumer Price Inflation in Greece, 1974-2019 (% per annum)



Source: EU Commission, AMECO Database (November 2020).

stagnation and high inflation, a mixture characteristic of stagflation. In addition, they led to a major deterioration in the international competitiveness of the Greek economy and periodic balance of payments crises. This cycle of economic destabilisation also resulted in a significant rise in the government debt to GDP ratio, unprecedented in peacetime until that period.

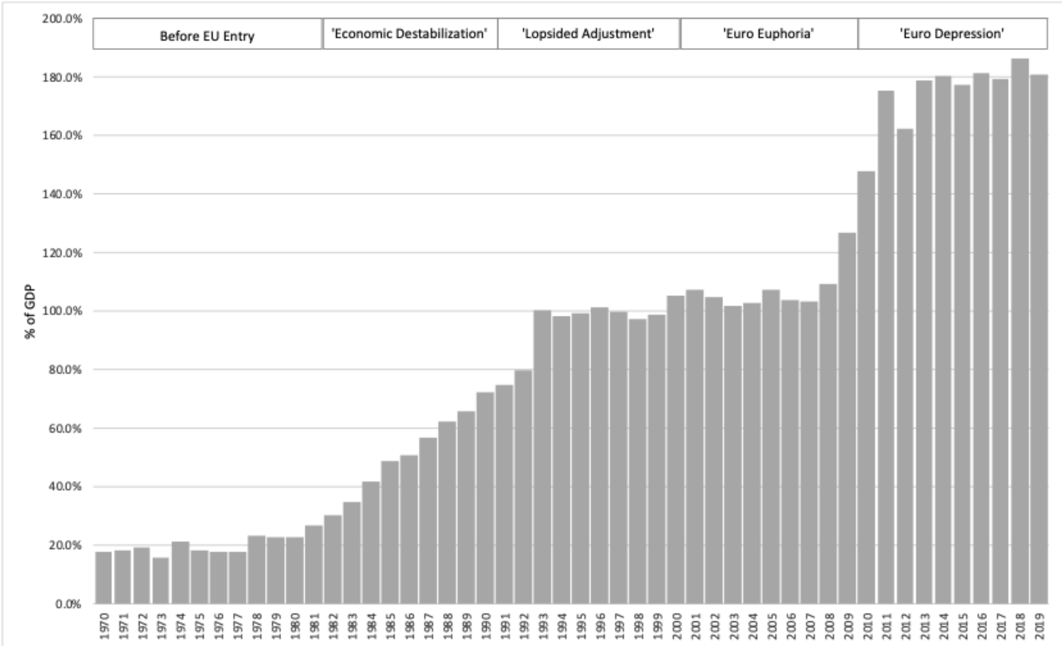
The rise in the government debt to GDP ratio in the 1980s, as well as its subsequent evolution, is depicted in Figure 4. The general government debt to GDP ratio grew rapidly throughout the 1980s, from 22.7% in 1980 to 72.5% in 1990.

The average annual GDP growth rate in the 1980s fell to a miserly 0.7%, the average unemployment rate more than tripled to 6.4%, whereas the average annual inflation rate jumped to 19.5%, from 12.3% in the 1970s, and only 4.3% in the 1950s and the 1960s (Figures 1,2 and 3). The current account moved from a surplus of 2% of GDP in 1980 to a deficit of 3.1% of GDP in 1985, prompting the adoption of a short-lived stabilisation program.

The stabilisation program of the mid-1980s was too little too late, as it was both one-sided and temporary. It was one-sided, in that it only concentrated on a devaluation and the containment of unit labor costs, but not fiscal adjustment. It was also short lived, as it was abandoned after two years in view of the forthcoming general election. A prolonged electoral cycle again destabilised the Greek economy in the late 1980s.

The OECD, in its periodic report on the Greek economy at the end of the 1980s, highlighted both the fiscal destabilisation and the reduction in international competitiveness that occurred.

Figure 4. The Evolution of Government Debt (% of GDP)



Source: EU Commission, AMECO Database (November 2020).

“Since the beginning of the 1980s there has been an unprecedented trend deterioration in the financial position of the public sector, witnessed by a rapid increase in borrowing requirements and debt.” (OECD (1990), p. 39).

“Excessively-rising real wages in relation to low productivity growth, and the lack of motivation of workers, notably in the public sector, signal problems in the functioning of the Greek labour market. There are important aspects of the wage formation process that explain why real wage gains do not adequately reflect exogenous productivity developments either at the aggregate level or between different skills. Institutional features and labour legislation have combined to weaken the responsiveness of employment to labour demand changes.” (OECD (1990), p. 62)

The main social and political feature of this cycle was the accommodating response of the government to the pervasive social demand for a redistribution of income and wealth in favor of social groups, such as wage and salary earners, pensioners, farmers, the self-employed and owners of small and medium-sized enterprises. These social groups felt that they had not participated fairly in the benefits of the country's post-war economic development in the twenty-five years before the restoration of democracy.

These social groups were won over by the idiosyncratic ‘third way’ to socialism promised by PA.SOK, a party which, after its election in 1981, dominated politically for the next thirty years.

In the 1980s, the 'third way' proved to be the way of higher state intervention and 'macroeconomic populism', similar to the policies that had been adopted in the 1970s in a number of Latin American countries.[4]

This cycle eventually led to a first serious economic and political crisis in the late 1980s, which threatened not only the Greek economy but even Greece's membership of the European Union.[5]

Lopsided Adjustment

The second cycle, a cycle *lopsided adjustment*, marked the nominal convergence policies of the 1990s. The cycle began after the election of a New Democracy government in 1990, but continued after the re-election of PA.SO.K at the end of 1993.

During the 1990s, successive governments, led by Constantine Mitsotakis, Andreas Papandreou and Costas Simitis, adopted nominal convergence and adjustment programs in order to address the accumulated imbalances of the previous decade and ensure Greece's participation in the process of economic and monetary union (EMU) which was adopted by the EU in the early 1990s.[6]

The nominal convergence policy of the 1990s, and the accession to the euro area in 2001, proved successful in addressing the problem of high inflation (see Figure 3), but not the other macroeconomic imbalances and structural deficiencies that plagued the Greek economy.

The adjustment of the Greek economy had been unbalanced and, for this reason, ineffective. It relied mainly on a restrictive monetary and exchange rate policy, with the result that the Greek economy joined the euro area without having faced at its core either the major fiscal problems that had arisen in the 1980s or the problem of low international competitiveness. In fact, the international competitiveness of the Greek economy worsened significantly during the convergence period.

Figure 5 depicts the real effective exchange rate (REER) of Greece, as measured by relative unit labor costs vis-a-vis the EU 15, expressed in a common currency. This is one of the most reliable measures of Greece's international competitiveness vis-a-vis its EU partners. A rise in the real effective exchange rate signifies a deterioration in international competitiveness. As shown in Figure 5, Greece's international competitiveness deteriorated by almost 25% between 1992 and 1999, the year on the basis of which Greece was admitted to the euro area. The deterioration relative to 1987, the final year of the short-lived stabilisation program of the 1980s, was even higher, at almost 33%.

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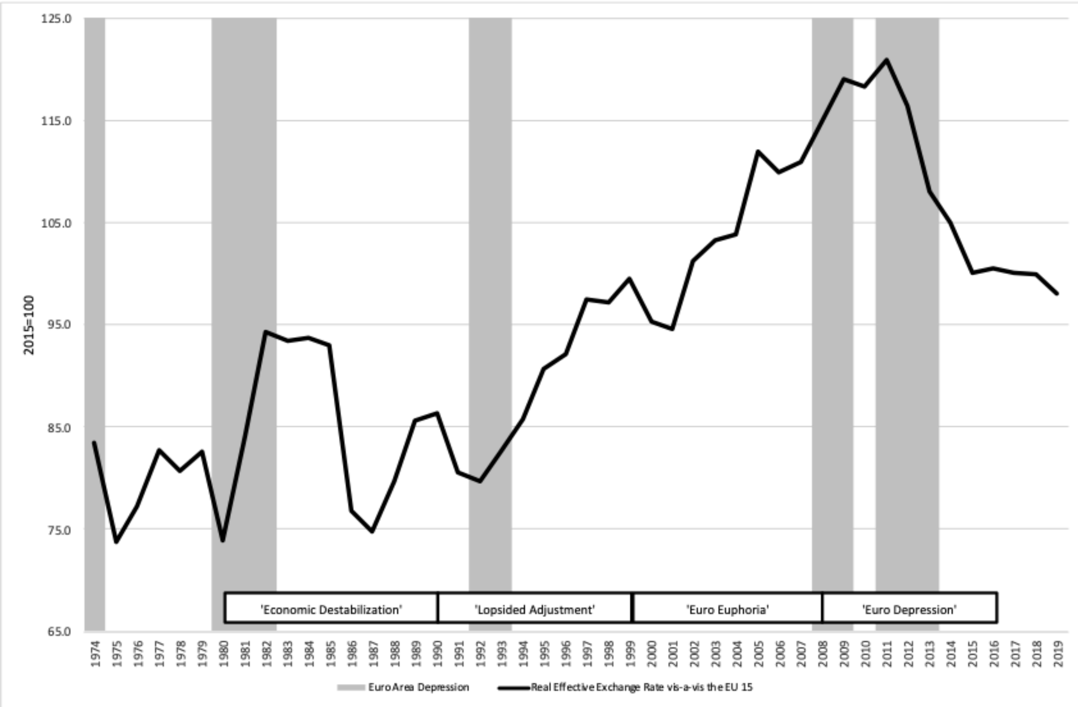
[4] The term macroeconomic populism was coined by Dornbusch and Edwards (1990). It is defined as an approach to economic policy that emphasizes the excessive expansion of aggregate demand and income redistribution, at the expense of high inflation, deficit financing, external imbalances and adverse reactions by investors. See also Dornbusch and Edwards (1991).

[5] For studies of the stagflation of the 1980s in Greece see Alogoskoufis and Christodoulakis (1991), Alogoskoufis and Philippopoulos (1992) and Alogoskoufis (1995).

[6] Alogoskoufis (1993) and Papademos (1993) focused on the ways that Greece could adjust effectively in order to participate in EMU, from the perspective of the early 1990s.

Figure 5. Real Effective Exchange Rate vis-a-vis the EU-15
(Relative Unit Labor Costs in a Common Currency)



Source: EU Commission, AMECO Database (November 2020).

Because of the policy mix of a relatively lax fiscal policy and a relatively tight monetary policy, the annual GDP growth rate picked up to an average of 3.3% in the second part of the 1990s. The annual inflation rate fell to an average of 6% because of the tightening of monetary and exchange rate policy, while the unemployment continued rising modestly as a result of relatively high real wage increases. The weak recovery was accompanied by an increase in the current account deficit to 5.1% of GDP in the second part of the decade from only 0.9% in the first part of the 1990s.

The government debt to GDP ratio rose in the early 1990s, as unrecorded debts from the 1980s were incorporated into the official debt figures, but was then stabilised. However, fiscal adjustment and the adoption of growth oriented structural reforms was quite slow and uneven.

At the level of political declarations, the main social and political feature of this cycle was supposed to be the promotion of macroeconomic adjustment and structural reforms. In practice, however, the structural and fiscal reforms that provoked strong social or political reactions were usually postponed or abandoned. Even organised minorities, such as powerful business groups or trade unions in the wider public sector, could stop useful economic reforms they were opposed to, such as privatisations, sometimes through direct interference in the political process.

Due to the reluctance of governments, especially after 1994, to bear the social and political costs of the required reforms, fiscal adjustment proved to be incomplete and unbalanced, structural reforms innocuous and ineffective, and thus the burden of adjustment fell mainly on monetary policy. This mix of policies was one of the main reasons for the deterioration of the international competitiveness of the Greek economy during this period.

The tendency for governments to postpone reforms that entail significant social and political costs or provoke strong reactions from politically strong organised minorities, as happened in Greece during this period, is one of the central conclusions of the new political economy approach. This is an approach that seeks to analyse the motives and behaviour of governments and their interaction with the motives and behaviour of the private sector and the electorate, as determined through political institutions.[7]

If the adoption of specific reforms provokes the reaction of a large part of the electorate or even organised minorities with a significant political weight, and if there are no appropriate institutional incentives and counterweights, then the political process results in the postponement, suspension or only partial adoption of such reforms. This can happen despite the fact that the reforms are potentially beneficial for society as a whole. This seems to have happened in Greece in the second part of the 1990s, whenever fiscal and structural reforms attempted by the government met with strong social and political reactions. Despite the fact that apparently almost everyone seemed to want Greece to join the euro area, few social groups appeared willing to support the necessary structural and fiscal reforms.

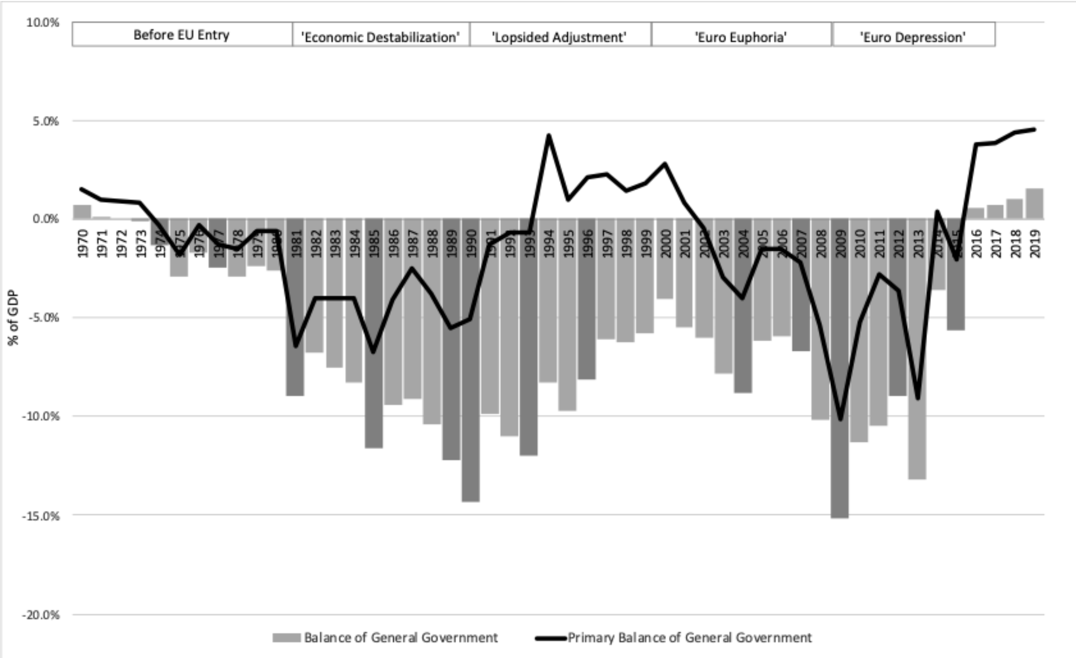
As a result, the weight of the adjustment fell mainly on monetary policy and falling inflationary expectations, because of the reduction of inflation. Structural reforms and adjustment in the primary fiscal balance took place mainly until 1994, due to the sense of urgency created by the economic and fiscal crisis of 1989-1990. However, the rapid deterioration and of the political fortunes of the Mitsotakis government, and its comprehensive defeat in the general election of 1993, became a 'lesson' for its successors. In the years after 1994, further primary fiscal adjustment and structural reforms that entailed significant political costs or provoked strong reactions from business interests or the trade unions, were suspended.

After 1994, the continuation of the reduction of the budget deficit was based almost exclusively on the gradual reduction of interest payments on government debt, as a result of the reduction of the nominal interest rates that took place due to the decline in inflation and inflationary expectations. The fall in inflation was the result of the restrictive monetary policy.

Monetary adjustment was not abandoned mainly due to the political independence of the Bank of Greece, which was strengthened after Greece adopted the Maastricht Treaty of 1992. The gradual reduction of inflation and inflationary expectations resulted in declining nominal interest rates, declining interest payments on government debt and hence declining budget deficits. Thus, the operation of the 'Fisher equation', which predicts that nominal interest

[7] The new political economy approach to monetary and fiscal policy dates from the mid-1980s. See Alesina (1988, 1989), Persson and Svenson (1989), Rogoff (1990), Tabellini and Alesina (1990), Fernadez and Rodrik (1991), Alesina and Drazen (1991). For a collection of the most fundamental initial studies see Persson and Tabellini (1994 a, b). For more recent reviews see Drazen (2000), Persson and Tabellini (2000) and Alesina and Passalacqua (2016).

Figure 6. Total and Primary Balance of the General Government in Greece (% of GDP)



Source: EU Commission, AMECO Database (November 2020).

rates fall in accordance with inflationary expectations, was a significant reason behind Greece's accession to the euro area.[8]

Part of the reduction in recorded fiscal deficits was also based on the use of 'creative accounting', which was considered at the time to result in minimal short term political or social costs. There was almost no primary fiscal adjustment between 1994 and 1999. In fact, the primary surplus that had been created between 1990 and 1994 actually declined.

The evolution of the general and primary balance of the government is depicted in Figure 6.

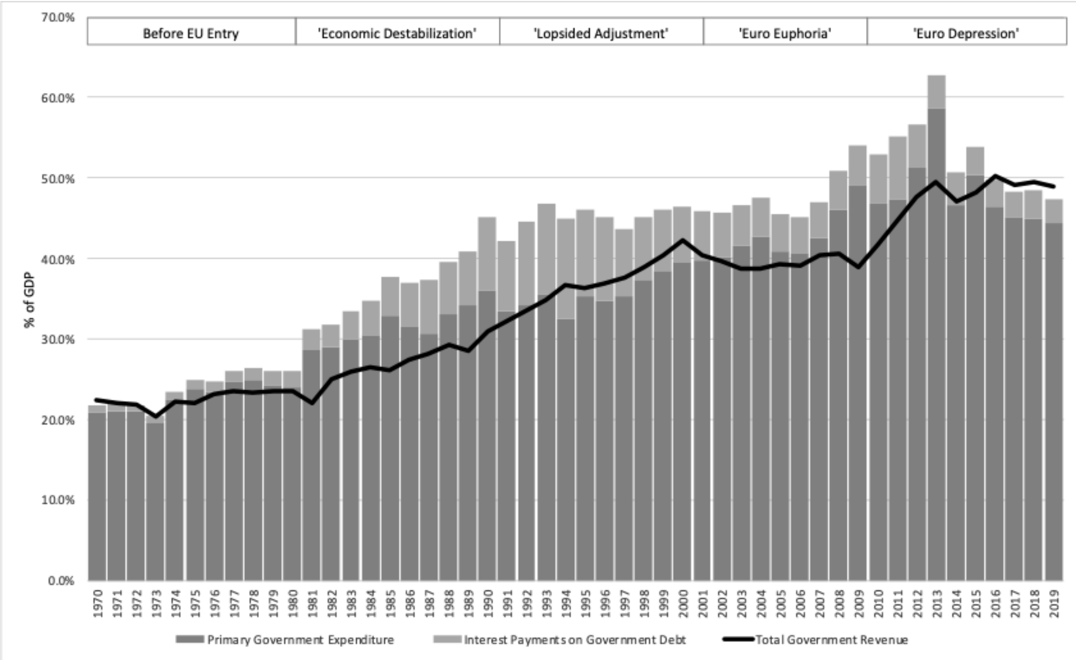
Until Greece's accession to the EU, deficits of the general government seemed to have been under control. However, in the 1980s they reached unprecedented levels for peacetime. As can be seen from Figure 6, the fiscal imbalances rose significant throughout the 1980s, but mainly during the election years of 1981, 1985 and 1989-90 (marked in a darker shade). These electoral spikes in the fiscal deficit, which started in 1981, have since characterised Greek fiscal policy.[9]

Fiscal adjustment in the 1990s resulted in a fall of the deficit of the general government from 14.3% of GDP in electoral 1990 to 5.8% of GDP in 1999. This decrease was due to both a significant reduction in the primary deficit of the general government, which occurred chiefly

[8] For the Fisher equation see Fisher (1911, 1930). Fisher was the first economist who highlighted the one-to-one relation between inflation, inflationary expectations and nominal interest rates.

[9] See Alogoskoufis (1995, 2013) and Lockwood et al (2001) for economic and econometric investigations of this electoral cycle in budget deficits in Greece.

Figure 7. Expenditure and Revenue of the General Government in Greece (% of GDP)



Source: EU Commission, AMECO Database (November 2020).

in the first part of the 1990s, and a fall of interest payments on general government debt, as nominal interest rates fell towards the end of the 1990s, following the reduction in inflation.

In 1990, the primary deficit, i.e., the deficit excluding interest payments, stood at 5.1% of GDP. This deficit declined rapidly in the 1990-94 period, the first part of the decade. By 1994 it had already been transformed into a primary surplus of 4.2% of GDP, marking an improvement of more than 9 percentage points of GDP. More than three fifths of this improvement in the first part of the decade was due to the increase in general government revenues, from 30.9% of GDP in 1990 to 36.7% in 1994. The remainder, slightly less than two fifths, was due to a reduction in primary expenditure of the general government, from 36.0% of GDP in 1990 to 32.5% in 1994. Figure 7 depicts the evolution of government expenditure and revenue relative to GDP.

Further adjustment of the primary balance stopped after 1994. As a result, the primary balance gradually deteriorated again. In 1999, the primary surplus had declined to only 1.8% of GDP, as primary expenditure had crept back up to 38.6% percent of GDP, higher than at the start of the decade. Thus, for the decade as a whole, the adjustment of the primary deficit was only equal to 6.8 percentage points of GDP, all of it due to increases in government revenue, which rose by almost ten percentage points of GDP.

How did Greece then manage to satisfy the fiscal criteria that were set out in the Maastricht Treaty? To the extent that it did satisfy these criteria, this was due to the additional contribution made by the reduction of nominal interest rates in the second part of the decade. This, as we have already mentioned, was a result of the fall of inflation and inflationary expectations and the fall of the inflation and devaluation premium on interest rates, as euro area entry was approaching.[10]

High inflationary expectations and expectations of a devaluation had kept nominal interest rates on Greek government debt high since the beginnings of the financial liberalisation of the economy in the late 1980s. These expectations were reversed towards the end of the 1990s. As a result, interest payments on Greek government debt fell from 9.2% of GDP in 1990, to 7.6% in 1999, after having risen to a high of 12.5% of GDP in 1994, in the aftermath of the crisis in the European Monetary System. This reduction of nominal interest rates contributed significantly to the reduction of the deficit of the general government in the second half of the 1990s, and allowed for the deficit of the general government to decline, despite the lack of adjustment of the primary deficit.

This policy mix, of a relatively expansionary fiscal and incomes policy and a relatively restrictive monetary policy was one of the main reasons for the significant deterioration in international competitiveness depicted in Figure 5.

As the reduction of price inflation preceded the reduction of wage inflation, the international competitiveness of the Greek economy was deteriorating constantly. In addition, there were very few structural reforms to help improve labor productivity.

Greece managed to join the euro area at the end of this cycle, on the basis of the fiscal and inflation data presented at the time, but the fiscal problems remained significant, while the problems of international competitiveness had worsened.

Euro euphoria

The third cycle, the cycle of euro euphoria, began at the beginning of the new millennium, immediately after the confirmation of Greece's accession to the euro area. Economically, this cycle was characterised by an environment of low inflation and low nominal and real interest rates, but also a further easing of fiscal and incomes policy. This relaxation started as early as the year 2000, immediately after the EU Council decision approving Greece's accession to the euro area.

The basis for the euro euphoria was the large and rapid decline in real interest rates, once expectations of a sudden devaluation of the currency were eliminated. This period of low real interest rates caused an increase in both aggregate investment and consumption.

The widening gap between aggregate investment and savings triggered an increase in aggregate demand and economic growth, but, on the other hand, led to a large and continuous widening of the current account deficit. Note that the current account is by definition the difference between aggregate national savings and aggregate domestic investment. The rise in investment and the decline in savings caused by the lower real interest rates led by definition to a worsening of the current account.[11]

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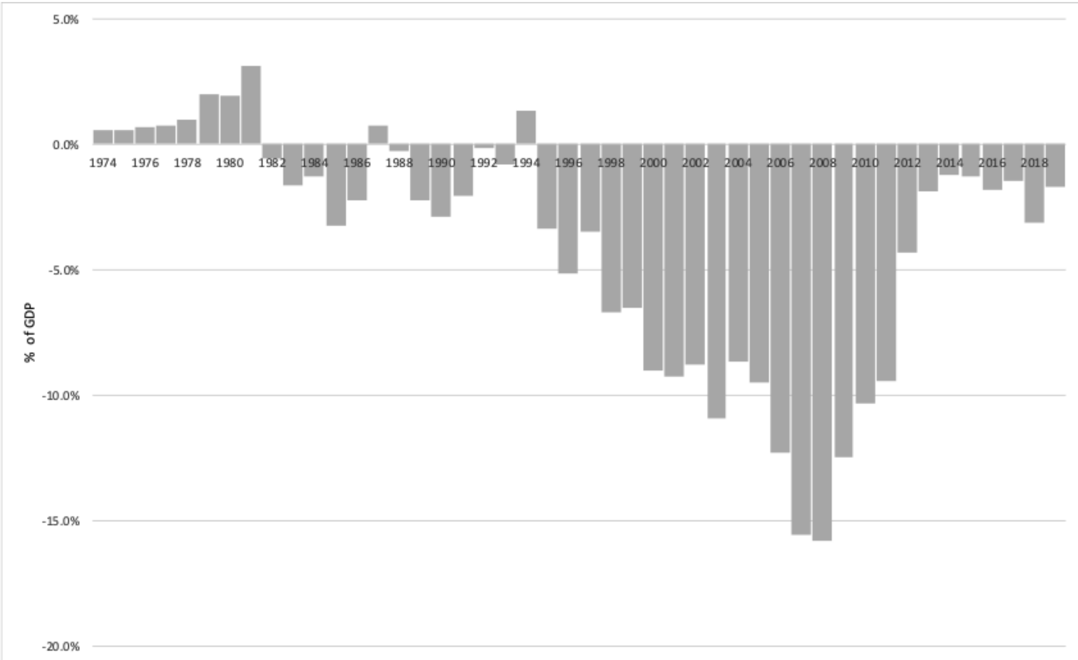
[10] Revised data by Eurostat show that the deficit of the general government in 1999 stood at 5.8% of GDP well above the 3.0% envisaged in the Maastricht Treaty.

[11] This cycle of euro euphoria is analysed in more detail in Alogoskoufis (2019).

Figure 8. The Evolution of the Current Account of the Balance of Payments (% of GDP)



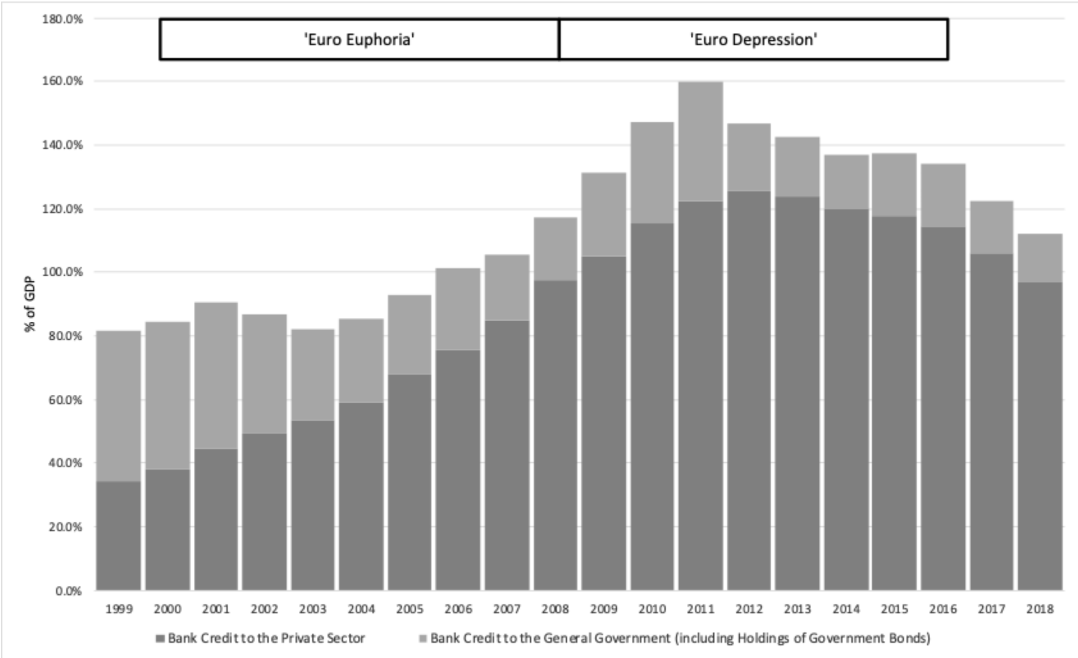
Source: EU Commission, AMECO Database (November 2020).

The evolution of the current account of the balance of payments in Greece is depicted in Figure 8. While Greece experienced current account surpluses in the latter part of the 1970s, in the 1980s the current account moved into deficit. The short-lived stabilisation program of 1986-1987 helped reverse this trend, but the current account started worsening again from the second half of the 1990s. As Greece's accession to the euro area was becoming more of a certainty, and nominal and real interest rates declined the current account kept worsening. This process was obviously affected by the deteriorating international competitiveness and the strong recovery of GDP growth. During the period of euphoria following euro area entry, the current account deficit increased even further. The international recession of 2007-2009 caused an additional increase of the current account deficit, due to the decline in Greece's revenue from exports and tourism. It was only after the crisis of 2010 and the adoption of the first adjustment program that these trends were reversed.

The deterioration of the current account was facilitated by the explosive rise of bank lending to the private sector. Because of the fall in nominal and real interest rates and the liberalisation of financial markets, demand for loans by the private sector boomed. Greek banks were happy to extend new loans, borrowing themselves cheaply from the rest of the world. When collateral was needed, they provided government bonds, of which they had significant holdings in their portfolios.

Bank lending as a percentage of GDP is depicted in Figure 9. Total bank credit grew from 81.5% of GDP in 1999 to 131.3% of GDP in 2009. For about ten years it was growing 1.6 times faster than GDP. Total bank credit to the private sector increased at a rate 3 times higher than nominal GDP. It exploded from 34.2% of GDP in 1999 to 105.1% of GDP in 2009. At the same

Figure 9. Bank Credit to the Private Sector and the General Government (% of GDP)



Source: Bank of Greece (November 2020).

time, bank credit to the general government, i.e, government bonds held by banks and other loans to the general government, fell from 47.2% of GDP in 1999 to 26.2% of GDP in 2009.

The fall in real interest rates, coupled with the liberalization of the domestic financial system, led to a real boom in private sector borrowing. Household loans for house purchases rose fivefold as a percentage of GDP, from 6% in 1999 to 33.1% in 2009. Consumer loans to households also rose fivefold relative to GDP, from 2.8% in 1999 to 15.3% in 2009. Total loans to households rose from 8.8% of GDP in 1999 to 49.7% of GDP in 2009. Total loans to enterprises more than doubled in relation to GDP, from 25.4% in 1999 to 55.4% in 2009.

It is obvious from the evolution of bank credit that Greek financial institutions were using the Greek government bonds in their portfolios as collateral, in order to obtain liquidity from foreign financial institutions, and thus extend additional credit to the domestic private sector. This helped to sustain the rise in the current account deficit, as it facilitated and financed the excess of private sector investment over savings. It also resulted in the internationalisation of Greek government debt, making Greece particularly vulnerable when the international financial crisis deteriorated in 2008.

In these circumstances, the Mundellian dilemma between internal and external balanced played a central role in macroeconomic developments. The only remaining instrument for short-term macroeconomic stabilisation was fiscal policy. In conditions of relatively high unemployment and an external deficit, an expansionary fiscal policy could reduce unemployment only at the expense of a further widening current account deficit. On the other hand, a more restrictive fiscal policy could reduce the current account deficit, but at the probable expense of a recession and higher unemployment. The option of devaluation, which could help address such a dilemma without creating a recession, had been forfeited by the decision to adopt the single currency. Greece had lost, through its participation in the euro area, the tool of correcting international competitiveness through a devaluation of its currency, and could no longer face the major problem of the current account deficit without engineering a recession.

This Mundellian dilemma was crucial for the political choices in the first decade after euro area entry, especially as the initial adoption of the euro at an uncompetitive exchange rate meant that Greece had locked in a very low level of international competitiveness which was feeding the external imbalances.

In fact, the Mundellian dilemma operated even before Greece entered the euro area. In the latter part of the 1990s, the Simitis government chose to not use a more restrictive fiscal and incomes policy to address the growing external imbalances, as this would probably lead to a recession, with the corresponding social and political costs. It did not proceed to the necessary devaluation of the exchange rate of the drachma either, as this would result in a rise in inflation, which, although temporary, would possibly lead to a postponement of Greece's accession to the euro area. Thus, the government continued to rely solely on the restrictive monetary and exchange rate policy that was proving effective in reducing inflation. A small devaluation that took place in early 1998, in advance of the introduction of the drachma to the Exchange Rate Mechanism of the European Monetary System, was clearly insufficient in correcting Greece's international competitiveness, and was in any case quickly reversed, as the further reduction of inflation had become the overriding short-term priority.

The endemic political tendency to postpone or suspend necessary but painful reforms was reinforced by the economic euphoria created by entry to the euro area. The second Simitis government, elected by a narrow majority in March 2000, chose to suspend any further reform and adjustment efforts immediately after Greece joined the euro area. Instead, it set out to further boost economic euphoria through the expansion of aggregate demand. It adopted an expansionary fiscal and incomes policy, which, while increasing aggregate demand and economic growth, exacerbated the existing fiscal problems and further aggravated the already low international competitiveness. Instead of intensifying structural reforms and fiscal adjustment to make up for the lost ground, the second Simitis government re-introduced some of the practices of the 1980s, such as an expansionary fiscal policy and real wage increases in excess of improvements in labor productivity.

The New Democracy government of Costas Karamanlis, elected in 2004, proceeded to a fiscal audit, in cooperation with Eurostat, which revealed much larger deficits than previously recorded. On the basis of these findings, it subsequently adopted a fiscal adjustment program at the end of 2004, as part of the euro area's excessive deficit procedure. This program of gradual fiscal and structural adjustment applied until the middle of 2007, when Greece exited the excessive deficit procedure.

Following the elections of September 2007, which were called early in order to continue with the process of fiscal adjustment, both the international economy and domestic politics took a turn for the worse. The developing international financial crisis and the weak parliamentary majority of the second Karamanlis government led to an abandonment of further fiscal adjustment during 2018. In the meantime, the fiscal and external deficits were widening, due to the onset of the international recession of 2007-2009.

The culmination of the international financial crisis and recession of 2007-09 and the stalemate over the re-election of the President of the Republic, led to new early elections in October 2009, in the middle of the second term of the Karamanlis government. This became necessary due to the a priori refusal of the PA.SO.K opposition, led by George Papandreou, to contribute to the re-election of the President of the Republic, without new parliamentary elections.[12]

In the elections of October 2009 Karamanlis campaigned on the need for a new austerity program, but Papandreou won in a landslide, having campaigned on the basis of a populist agenda.

After the elections, the reluctance of the new Papandreou government to address the growing fiscal and external imbalances, which he in fact was quick to blame on the policies of his predecessor, led to a crisis of confidence and the 'sudden stop' of international borrowing to Greece in the first quarter of 2010.

The crisis of confidence was initially reflected in the sharp rise of the spread of Greek Government bonds. Figure 10 depicts the yield of the 10 year Greek bond and that of the German Bund of the same duration. Their difference is the so-called *spread*, reflecting differences in their default risk.

The spread, which had remained extremely small since Greece entered the euro area, had started widening since the first stages of the US subprime crisis in mid-2007. It widened further in late 2008, following the default of Lehman Brothers.

After the elections of October 2009, and especially after the budget of the new Papandreou government the spread exploded, signifying a rapidly developing crisis of confidence and the unwillingness of investors to keep holding Greek bonds. This led to the 'sudden stop' of international lending to Greece by March 2010.

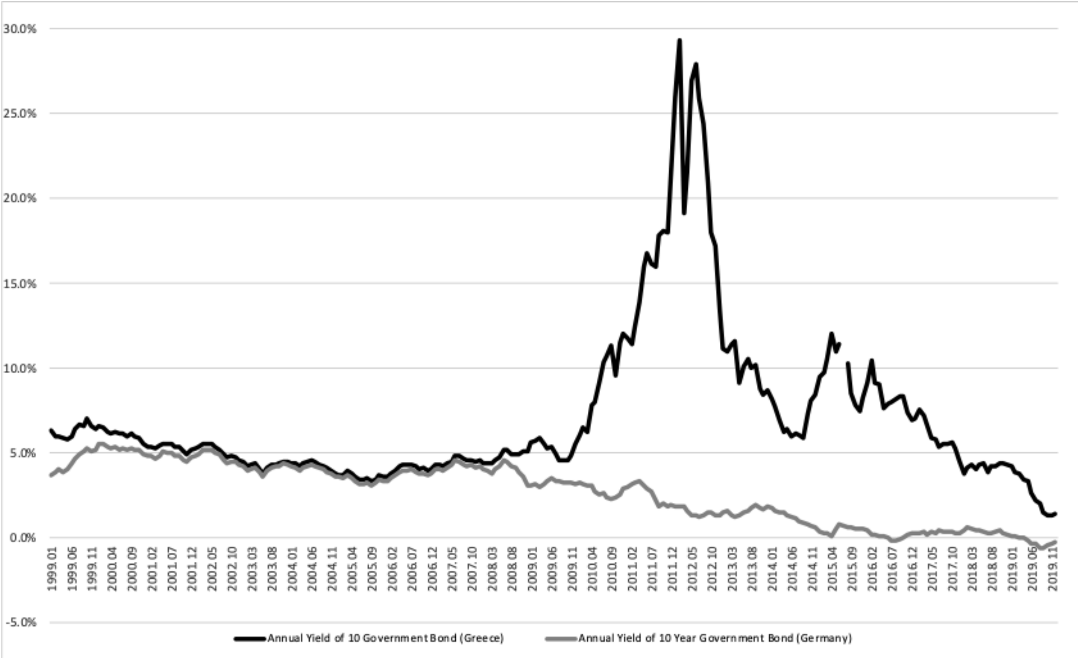
Euro depression

The policy reversal imposed on Greece since 2010, after the 'sudden stop' in international lending, was the trigger of the fourth policy cycle, which can be considered as the cycle of the euro depression.

This last cycle essentially bypassed and short-circuited the domestic political process, as the main decisions were made by the authorities of the euro area, whose member-countries had undertaken to refinance a large part of Greece's foreign debt. After 2010, the role of Greek

[12] It is ironic that the then President of the Republic was a prominent former minister of the PA.SO.K governments of Andreas Papandreou, Karolos Papoulias. Yet, George Papandreou declared that his party would not vote for him, unless parliamentary elections were called first. In the event, Papoulias was re-elected to the Presidency after George Papandreou won the parliamentary elections of October 2009.

Figure 10. Yield of 10 Year Government Bond in Greece and Germany (% per annum)



Source: OECD Data Bank (November 2020).

governments was limited to the implementation of the adjustment programs designed by a 'troika', consisting of representatives of the the International Monetary Fund (IMF), the European Commission (EU) and the European Central Bank (ECB).

In order to address the external imbalances, successive rounds of steep fiscal adjustment and nominal and real wage cuts were put in place. Due to the nature of these adjustment programs, based on indiscriminate tax hikes and horizontal wage, pension and other public expenditure cuts, this cycle caused the longest and deepest recession in the post-war history of Greece. An unprecedented 'great depression'.

The answer to Mundell's dilemma was the exact opposite of that of the previous decade. Priority was given to the sharp correction of fiscal and external imbalances, through fiscal 'austerity' and recession. After three consecutive adjustment programs which lasted for more than eight years, external imbalances were partly addressed at a huge cost in terms of lost production and jobs. These developments are depicted in Figures 1 to 10.

The adjustment programs were officially completed in 2018, but Greece continued to remain in a 'enhanced surveillance' regime within the euro area.

There is little doubt that the primary cause of the Greek crisis of 2010 was the macroeconomic imbalances and structural weaknesses of the Greek economy. These had developed over the previous three decades due to the ineffective economic policy choices by successive Greek governments, due to the social and political costs implied by the necessary adjustments and reforms.

Yet, the fourth act of the tragedy, the 'euro depression', also bears the hallmark of the ineffectiveness of the adjustment programs designed by the 'troika', which was responsible for planning and monitoring the implementation of the post-2010 adjustment programs.

4. Weaknesses and Asymmetries of the Euro Area

The institutional weaknesses and asymmetries of the euro area itself as well as the inefficiency of the European crisis management mechanisms also played an important role in the Greek crisis.

It is well known that the euro area had particular weaknesses as a monetary union, right from the start. It was characterised by pronounced economic asymmetries between its Member States, especially the 'core' economies of Western and Central Europe, and the economies of the 'periphery', such as Greece, Ireland, Portugal and Spain. In addition, cross-border mobility of workers was low, because of cultural, language and institutional reasons. One of the main obstacles is the absence of a euro area wide system of income tax and unemployment insurance. Furthermore, it was not endowed with a sufficient federal budget that could help absorb some of the asymmetric economic and financial shocks affecting its members. Finally, the euro area was a monetary but not a banking union, while its central bank, the European Central Bank (ECB), does not have the authority to operate as a 'lender of last resort' to either its member states or its banks in times of crisis. All these considerations made it a particularly vulnerable 'currency area' that did not satisfy any of the criteria required from an 'optimum currency area'.[13]

These weaknesses played an important role in the development, transmission and effects of the euro area crisis. The crisis of 2010 did was not confined to Greece. It affected the whole euro are, especially the economies of the 'periphery', such as Spain, Portugal and Ireland. It even affected some of the major economies such as Italy and France.[14]

The other economies of the periphery had faced dilemmas and problems similar to the one faced by Greece, as they were also characterised by external and financial imbalances, were also confronted by Mundell's dilemma between internal and external balance, due to their inability to devalue after having adopted the euro.

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[13] The question of what constitutes an 'optimum currency area' was first posed and partially answered by Mundell (1961), who is rightly considered as the originator of the literature on the subject. McKinnon (1963) and Kenen (1969) were early major contributors to this literature. The literature was revived in the 1980s, as additional considerations were added. A survey of the so called 'new' theory of optimum currency areas can be found in Tavlas (1993). O' Rourke and Taylor (2013), among others, have recently argued, that the United States is much closer to the optimum currency area criteria than the euro area.

[14] For studies that focus on the wider dimensions of the euro area crisis see, among others, Lane (2012), O'Rourke and Taylor (2013), Chen et al (2013), Baldwin and Giavazzi (2015, 2016), Alesina et al (2015), Orphanides (2015, 2017 a,b), Brunnenmeier et al (2016), Kang and Shambaugh (2016), Papademos (2016), Stiglitz (2016), Wyplosz (2016), Mody (2018), Alesina et al (2019), Alogoskoufis and Jacque (2019) and Ioannides (2019). For analyses of the euro area before the crisis see Blanchard and Giavazzi (2002) and Wyplosz (2006).

However, the fact is that for a long period of time Greece has had deeper and more serious macroeconomic imbalances and structural weaknesses than the other economies of the 'periphery' of the euro area. For example, Spain and Ireland, despite their huge financial imbalances did not have the fiscal problems of Greece, while Portugal had much smaller fiscal and external imbalances in 2009.

5. Macroeconomic Imbalances and Structural Deficiencies in Greece

We are now in a position to summarise our analysis of the macroeconomic imbalances and the structural, institutional and political weaknesses of the Greek economy.

According to our analysis, the crisis of 2010 was the consequence of the persistent and major macroeconomic, structural and fiscal imbalances created mainly in the 1980s, the fact that Greece entered the euro area with major competitiveness problems and large fiscal imbalances and the significant weaknesses and delays of the structural and macroeconomic adjustment efforts undertaken since the 1990s. The proximate cause of the crisis was the rapid buildup of external imbalances after euro area entry and the trigger was the international financial crisis and the international recession of 2007-2009.

Macroeconomic Imbalances

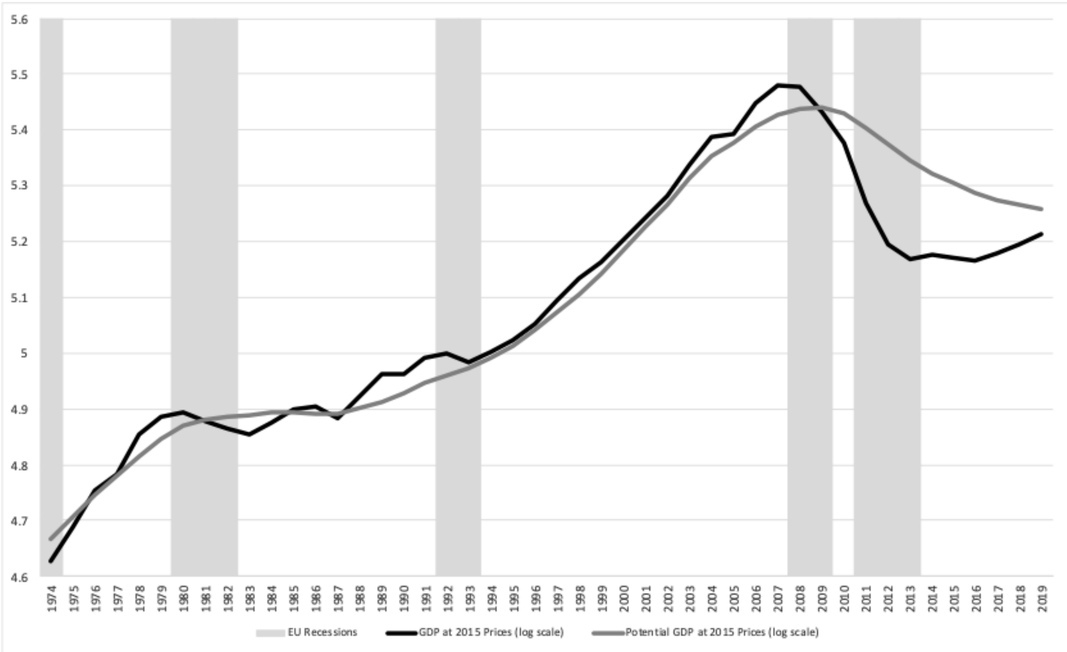
The fact that Greece was not adequately prepared to join the euro area was perhaps the most decisive from an economic point of view. Giving up the freedom to choose its own monetary and exchange rate policy, in conditions of deteriorating international competitiveness and fiscal imbalance, proved to be perhaps the most crucial element in the creation of the conditions that eventually led to the 2010 crisis.

According to the latest revised data of Eurostat, in 1999, the year on the basis of which the question of Greece's accession to the euro area was assessed, the gross debt of the general government was at 98.9% of GDP, without a declining trend towards the 60% envisaged in the Treaty on European Union. The deficit of the general government was at 5.8% of GDP, almost double the 3% envisaged in the treaty.

Furthemore, the international competitiveness of the Greek economy, based on real relative unit labor costs vis-a-vis the EU-15, had declined by 33% compared to 1987 and by 25% compared to 1992.

The significant reduction in real interest rates and the feeling of euphoria created after euro area entry, led to a large increase in investment and a reduction in national savings. This resulted in an increase in domestic aggregate demand and GDP growth, lower unemployment, but also a large expansion of private sector borrowing and the current account deficit. This development was reinforced by the almost immediate increase in the already high budget deficits after Greece had secured entry to the euro area, the continuous deterioration of international competitiveness, through the excessive wage increases agreed

Figure 11. Real and Potential GDP in Greece, 1974-2019 (Billion 2015 euros, logarithmic scale)



Source: EU Commission, AMECO Database (November 2020).

upon by the social partners in the midst of euro euphoria, and the excessive increase in domestic bank lending to the private sector.

These are the factors that led to a sustained widening of the gap between aggregate demand and the country's productive capacity.

Figure 11 depicts the evolution of Greece's GDP and its potential GDP for the past 45 years. For most of the period, especially since the late 1980s, actual GDP was above its potential, due to the relatively expansionary aggregate demand policies. Potential GDP was rising since the late 1980s, but not by enough to keep up with aggregate demand. For almost twenty years before the 2010 crisis the country financed a large part of its consumption, investment and economic growth through excessive private and public borrowing from international financial markets. International lending was the tool that on the one hand sustained high domestic demand and on the other hand facilitated the postponement of the necessary reforms.

Neither the adjustment policy of the 1990s, nor the stabilisation program of 2005-2007 did manage to reverse these trends.

When the international financial crisis and recession of 2007-2009 broke out, leading to a deterioration of the existing fiscal and external imbalances and finally the 'sudden stop' in international borrowing in 2010, the political process that determined economic policy choices in the previous thirty years was disrupted, and Greece was forced to adopt a policy mix based on a front-loaded increase in national savings and decline in domestic investment.

The adjustment programs implemented since then have relied heavily on fiscal ‘austerity’, and caused a catastrophic deep and lasting economic downturn.

After 2010, the ‘euro depression’ resulted in GDP declining below its potential. Yet, because of the catastrophic decline in aggregate investment and the fact that the adjustment programs did not focus on structural reforms that could, over time, lead to a recovery in investment and total factor productivity, there was also a significant decline in Greece’s potential GDP. Hence the recovery after 2016 was weak and in no way sufficient to compensate for the great losses of the long period of the great crisis.[15]

Institutional Weaknesses and Structural Deficiencies

The low and declining potential GDP suggests that in addition to the macroeconomic imbalances, there still exist major institutional weaknesses and structural distortions in the Greek economy. These seem to be concentrated in six main areas:

1. the functioning of the markets for goods and services,
2. the labor market and collective bargaining,
3. the financial system,
4. the operation of the public sector,
5. the tax and welfare system, and
6. the education system.

These are the areas where the main reforms will have to focus from now on. We shall briefly refer to all six.

1. Markets for Goods and Services

The markets for goods and services in Greece are characterised by a lack of competition and an extremely limited range of goods and services produced. Most industries have a strong oligopolistic or even quasi-monopolistic structure, which is reinforced by the large size of the public sector and the inability of the regulatory agencies to implement an effective competition policy.

According to the *Global Competitiveness Report* (GCR) of the World Economic Forum (WEF), the weaknesses of the markets for goods and services in Greece are attributed to the existence of distorting taxes and subsidies, to their oligopolistic structure, to the low international orientation of production, the low dynamism of companies and to the limited possibilities for introducing innovations.[16]

[15] For a recent analysis of trends in Greek economic growth see Leounakis and Sakellaris (2019).

[16] It is significant that with respect to the efficiency of its product markets, Greece is ranked in the 81 place, among 141 advanced and less advanced economies. See WEF (2019). This is the worst performance among all countries in the euro area.

In addition, due to the almost continuous deterioration of the international competitiveness of the Greek economy, the export sectors or the import substitution sectors have been shrinking for many years in favor of sectors producing non-tradable goods and services.[17]

2. The Labor Market and Collective Bargaining

The shrinking of the sectors producing internationally tradable goods and services sectors has accelerated due to the functioning of the labor market. The institution of free collective bargaining in the private sector have failed spectacularly to prevent the continued deterioration of the international competitiveness of the Greek economy.

The relatively small size of the internationally tradable goods industries and their consequent low impact in the collective bargaining process, led to wage increases well above the limits set by increased labor productivity. In the 1980s, due to the accommodating nature of monetary and exchange rate policy, this led to a vicious cycle of wage increases, devaluations and inflation. After the adoption of the policy of the 'hard drachma' in the 1990s, this led to a vicious cycle of continuous deterioration of the international competitiveness of these sectors and the Greek economy as a whole, further reducing the size and bargaining power of the internationally traded goods sectors.

This process was exacerbated at critical times, especially during elections, by high wage increases in the public sector. Wage increases of government employees have been the result of mandatory government incomes policies, and were subject to the same political incentives and constraints that affected fiscal policy in general. Moreover, after 1990, salary increases in public enterprises and organisations were not directly determined by government incomes policies, but were the result of collective bargaining between weak government-appointed managers and strong public sector unions. After a 1990 'reform', disputes were referred to compulsory arbitration, which usually ended up awarding increases quite near to the excessive wage demands of public sector unions. These weaknesses in public sector wage setting have often resulted in excessive wage increases, which sooner or later spilled over to the private sector. There were also one of the main reasons for the deterioration of the general government balance.[18]

The system was short-circuited during 2010-2016, through mandatory wage cuts by the 'troika', but it has not been reformed. Thus, there is an increasing risk of a relapse to the policies of the past.

A number of other distortions exist in the Greek labor market. The main other problems are the distortions caused by the nature of employee protection legislation, the limited flexibility of working hours and the high non-wage costs.[19]

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[17] In a recent study, Arkolakis, Doxiadis and Galenianos (2017) attribute primary importance to the distortions of the markets of goods and services for the poor export performance of Greece.

[18] One of the persistent characteristics of the Greek labor market is the persistently high wage premium in the public sector (Giordano et al 2011). The high wage premia in the public sector were preserved even under the wage adjustments brought about by the crisis. As suggested by Christopoulou and Monastiriotis (2016) 'Compared with private sector wages, public wages were less affected during the Greek crisis. In result, public wage premia increased, especially for the low-paid workers.' (p. 176).

[19] See Lyberaki et al (2017).

According to the *Global Competitiveness Report* of the World Economic Forum (WEF) for 2019, Greece is ranked 111th among 141 developed and less developed countries in terms of labor market efficiency. Again, in the worst position with respect to all other EA countries.

3. The Financial System

The financial system has also been characterised by major institutional weaknesses. In the 1980s, and before its liberalisation in the early 1990s, the financial system operated as part of the government and the public sector, due to the dominance of large state-owned banks. The financial system had contributed significantly to the inflationary financing of large budget deficits and to the use of private sector savings to finance ever-increasing public expenditure and the deficits of public enterprises and organisations. After the liberalisation of the late 1980s, and despite the continued presence of large state-owned banks, government control eased.

However, with the liberalisation of the financial system issues of inadequate supervision became significant. Weak supervision of both commercial banks and the Athens Stock Exchange led, on the one hand, to the 1999 'bubble' of the Athens Stock Exchange, and, on the other, to the financial explosion of the period 1998-2008, following the sharp reduction in nominal and real interest rates.

Inadequate supervision and political tolerance, if not encouragement, of the financial boom and the stock market 'bubble', contributed to the strengthening and widening of the macroeconomic imbalances of the Greek economy and in particular the widening of the external imbalances and the accumulation of external debt.

Following the 2010 crisis, and during the implementation of successive adjustment programs, commercial banks faced capital adequacy problems for three main reasons. Firstly, because of the 'deleveraging' caused by the crisis. Secondly, due to the 'haircut' of the value of government bonds in 2012, with the so-called 'Private Sector Initiative' (PSI), which further weakened the banks' balance sheets, Thirdly, due to the large and prolonged recession which resulted in the dramatic increase in non-performing loans .

The weaknesses of the financial system exacerbated the macroeconomic and financial imbalances during the period of 'euro euphoria' and the intensity, duration and high cost of the 'euro recession'.

The financial sector has exited the crisis in a much weaker position and is in need of substantial recapitalisation and reform.[20]

4. Public Administration and the Public Sector

Perhaps the biggest structural weakness for the Greek economy is the inefficiency of the public administration in conjunction with the extensive economic role of the state.

According to the Global Competitiveness Report of the World Economic Forum for 2019 Greece is ranked 92nd among 141 countries in terms of public sector efficiency. The two main

[20] See Haliassos et al (2017) and Louri and Migiakis (2019) for recent studies of the evolution and the current state of the financial sector in Greece.

problems identified are the burden of bureaucracy (127th place) and the inefficiency of the justice system (131st place).

This inefficiency has significant negative consequences for the functioning of basic state functions, as well as for the tax system, the regulatory role of the state and the efficiency of public enterprises and organisations. This inefficiency also creates particular problems for the welfare state, social security and the country's education system.

The problems are low efficiency and productivity and corruption seem to have worsened in the thirty years before the 2010 crisis due to the predominance of partisanship over meritocracy, among others. The result has been a gigantic but inefficient bureaucracy and widespread corruption and tax evasion.

These problems, even after the implementation of the adjustment programs, continue to be major obstacles to the recovery of the Greek economy.[21]

5. The Tax and Welfare System

The tax system is also a major obtacle. Greece is ranked very low internationally in a series of relevant indicators of the *Global Competitiveness Report* of the World Economic Forum for 2019. In the index regarding the distortions caused by the tax system for competition, Greece is ranked 109th among 141 countries. In the index regarding the tax burden of labor, it is ranked in 117th place. In the index regarding social capital, it is ranked 118th.

An effective tax system must generate sufficient revenue with the fewest possible distortions in allocative efficiency, while contributing to a fairer distribution of income and wealth.

On the other hand, the social welfare system should contribute to a fairer distribution of income and wealth, with the least possible costs and the least possible distortions to the efficiency of resource allocation.

The first major distortion concerns income taxes. Instead of a uniform treatment of taxable income, different sources of income are treated differently. Indirect taxes, such as Value Added Tax (VAT), which is levied on almost all goods and services produced, as well as excise duties, also cause major distortions because of the high rates at which they are levied. Distortions and injustices are also caused by real estate taxes as well as real estate transfer taxes and the taxation of corporate income.

The tax and welfare system in Greece is so complex and opaque that in addition to the distortions it causes for incentives to work, save and invest, it is also characterised by a very large extent of tax evasion and avoidance. Both of these forms of non-compliance result in costs that are shifted to people with apparent sources of income, such as salaried employees in the 'formal' economy. Apart from the inequities that it generates, this shift undermines the

[21] See Jacobides (2017), Kaplanoglou (2019), Karkatsoulis and Stefopoulou (2017), Lambropoulou and Ladi (2020), and Spanou (2019) for recent studies of public administration in Greece, before and after and crisis. Sotiropoulos (1993) studies the problem of party-political capture of the administration following elections, while Sotiropoulos (2019) studies the evolution of state-society relations after the crisis. Featherstone (2019) examines how Greece's institutional weaknesses affect its ability to benefit from EU participation and to adapt to EU institutions and policies.

social acceptance of the system, with the result that tax evasion and tax avoidance become widespread and socially acceptable activities.[22]

6. The Educational System

Despite the high percentage of Greeks completing secondary education, educational outcomes in Greece, as measured by the results of the PISA exams in mathematics, science and reading, are significantly lower than the EU and OECD average. This difference reflects the low efficiency of the Greek education system, and is reflected, among other things, in the lower productivity of the average Greek worker compared to the rest of the euro area.

In addition, participation in vocational education and training (VET) programs remains relatively low, while Greek universities also face significant problems due to their attachment to the state and insufficient funding.[23]

There is significant potential for improving the quality and results of the education system. After all, according to the OECD, after adjusting the skill level of young adults for time spent in education, Greece is ranked only above Turkey in the countries of the Organisation. Additional training in Greece does not increase wages or the likelihood of finding a job as much as in most other OECD countries.

6. Social Interactions, Institutions and Politics

From the analysis in the previous sections it is clear that a large number of significant structural distortions still exist in Greece. These distortions have a negative impact on total factor productivity, the allocation of limited economic resources, the accumulation of physical and human capital and technological progress.

The key question is what stops the reforms that would address these distortions and thus allow for a better allocation of resources, higher investment and growth and the elimination of macroeconomic imbalances.

The analysis of the economic role of institutions, social interactions and politics is pertinent for the answer to this key questions.

Institutions and Long-Run Growth

The role of institutions for long-run economic growth was first pointed out by economic historians, as they viewed the accumulation of physical and human capital and technological progress as expressions of the process of economic growth and not as its fundamental determinants. In the view of North and Thomas (1973), North (1990), and in the view of many other economic historians, the fundamental explanation for comparative development lies in differences in institutions. According to this view, economic and political institutions such as

[22] See Flevotomou et al (2017) for an extensive analysis of the tax and welfare system and the need for reforms.
[23] See Vettas (2017) for a comprehensive analysis of the problems of the educational sector in Greece.

human, political and property rights, the existence and imperfections of the markets, the nature of the political system, etc. are of primary importance for economic performance.

Economic and political institutions are considered important because they influence the structure of incentives. For example, without the protection of property rights, households and firms have limited incentives to invest in physical or human capital or to adopt the most efficient technologies.

Economic institutions are also important because they help allocate resources to their most efficient uses and determine who benefits from economic activity. When markets are mis-functioning, the potential benefits of trade are not exploited and resources are not allocated efficiently. Societies with economic institutions that facilitate and encourage the accumulation of physical and human capital, innovation and the efficient allocation of resources prosper, while societies with institutions that hinder them remain stagnant.

A number of recent studies have examined the effects of the institutional characteristics of the Greek economy on its economic performance. This work is mainly based on the World Bank Global Governance Indicators. These indicators measure the impact of institutions in areas such as 1. the rule of law, 2. the quality of the regulatory framework, 3. the effectiveness of governance, 4. the control of corruption, 5. political stability, and 6. representation and citizen participation.

According to the analysis of the impact of these indicators, among the euro area countries, Germany is the country with the best quality of institutions and Greece the one with the worst. In addition, countries with institutions of better quality appear to have coped better with the effects of the global financial crisis and the 2007-2009 economic downturn. In addition, based on these indicators, the quality of institutions in Greece seems to have deteriorated significantly during the crisis and to have contributed significantly to the 'great depression' of the Greek economy.[24]

Consequently, the quality of the institutions seems to be of great importance for the economic performance of Greece in relation to the other countries of the euro area and to interact positively with its economic performance.

Institutions, Social Interactions and Politics

Economists turned their attention to the role of institutions for growth, following the pioneering empirical study by Acemoglou, Johnson and Robinson (2001), and the literature that was sparked.[25]

The key features of this branch of 'new political economy' are:

First, economic institutions are important for economic growth because they shape the incentives to invest in physical and human capital and technology, and improve the

[24] See Christodoulakis (2019), Featherstone (2019), Christou et al (2020) and Economides et al (2020) for three of the most recent studies based on the investigation of the effects of these indicators and their interactions with the economic performance of Greece.

[25] See also Acemoglou, Johnson and Robinson (2005) and Acemoglou and Robinson (2006, 2012).

organization of production. Although cultural and geographical factors may also be important for economic performance, differences in economic institutions are the main source of cross-country differences in economic growth and prosperity. Economic institutions not only determine the overall economic growth potential of an economy, but also all economic outcomes, including the allocation of resources now and in the future.

Second, in this approach, economic institutions are treated as endogenous. They are determined collectively, largely on the basis of their economic consequences. The preferences of individuals and social groups for economic institutions differ because different economic institutions lead to a different distribution of income and wealth. As a result, there will usually be conflicts of interest between different individuals and social groups over the choice of economic institutions. These conflicts of interest are resolved through the political process.

Third, the distribution of political power in society is also treated as endogenous in this literature. Political institutions, like economic institutions, determine the constraints and motivations of key actors in the political system. The functioning of the political system is determined both by the legislation in place, but also by the distribution of economic power in society. Access to power for certain groups depends on the economic resources at their disposal, which determine both their ability to use (or abuse) existing political institutions and their ability to prevail politically over other groups.

There are two sources of slow adjustment in the behaviour of such a system: first, political institutions are resilient. A major change in the distribution of political power is usually required to bring about change in political institutions. The most typical example of such a change is a transition from dictatorship to democracy, as happened in Greece in 1974. Second, when one social group is economically stronger than the other, it will increase its de facto political power, which will allow it to push for economic and political institutions favorable to its interests. This will tend to reproduce the initial relative wealth inequality in the future. Despite these trends of inactivity, the framework also highlights the possibilities for change. In particular, major disruptions, including changes in technology and the international environment,

One of the reasons that reforms of political and economic institutions are blocked is related to the interaction of social and economic groups with politics.

The various social and economic groups in Greece have secured significant privileges that allow them to earn sizeable economic rents at the expense of other groups. While the rents are important for each social group, the cost of the privileges that secure these rents is more widely disseminated to society as a whole.

Although no particular social or economic group is politically dominant, as the political system is broadly representative and participatory, each social group, from business groups in non-competitive industries, associations of professionals of various types, trade unions in the wider public sector, and others, have the ability to politically block reforms that are harmful to their narrow interests and protect the privileges and arrangements that guarantee them these rents.[26]

Each social and economic group has little to gain from reforms that affect other groups, hence it does not support them. Worse, each social and economic group reckons that if it consents to reforms harmful to other groups, it may later find itself in the position of defending its own privileges. On the other hand, each social and economic group has sufficient motivation and political power to be able to prevent reforms that undermine the special privileges it has secured.[27]

The relentless electoral competition between the main political parties, partisanship and corruption in the public administration, the control of a large part of the media by business interests, the party-political influence of the trade unions in the wider public sector and the indifference, or even the fear, of the wider social majority regarding the promotion of beneficial reforms are the key factors behind this situation. Thus, interaction of social groups through Greece's political and economic institutions ultimately leads to inaction on the necessary reforms. In this way, Greece is trapped in an inefficient economic and political balance, which is far from conducive to reforms that would contribute to economic efficiency and economic growth.

Any attempt at reform, even if it directly affects a small minority, meets with a strong political reaction from those directly affected and with the indifference, if not hostility, of the large social majority. This is perhaps the main reason why socially beneficial reforms are not moving forward.

Ultimately, however, it is the responsibility of the country's political system to design and implement a way out of this ineffective and nationally damaging trap. There is little doubt that initiatives to promote the economic, social and institutional reforms required in Greece can only be promoted through the country's political system.

This is something that the Greek political system has failed to do so far. In fact, the political system has the main responsibility for the policy cycles that preceded the 2010 crisis as well as joint responsibility for the management of the crisis to this day.

Behind the initial destabilisation of the economy in the 1980s was the inability of the political system to effectively manage the social and political pressures to redistribute income and wealth in favour of the large and electorally powerful middle classes, consisting of private and public sector employees, retirees, farmers, the self-employed and owners of small and medium-sized enterprises.

Since the 1990s, adjustment efforts have been weak, lopsided and ineffective, mainly due to the very weaknesses of the political system to effectively manage social and political pressures to protect the living standards of the various social and economic groups from the redistributive effects of the necessary reforms. These social pressures, as well as the ability

[26] See Olson (1965) for an influential analysis of such a process in democratic societies.

[27] For an attempt to model a pattern of such interactions between social groups and politics in order to explain Greece's disappointing economic performance, see Kollintzas, Papageorgiou and Vassilatos (2018) and Kollintzas et al (2018).

of organised minority interests to thwart reforms that were detrimental to their own narrow interests, often led to ineffective choices, postponements and changes of course.

Greece’s political, social and economic institutions were not able to prevent the continuous accumulation of public debt and the continuous deterioration of the international competitiveness of the Greek economy. The same happened unfortunately with the fiscal restrictions from the Maastricht Treaty and the Stability and Growth Pact, which successive Greek governments have largely managed to evade.

Only with the enforcement of the adjustment programs after 2010 did the fiscal adjustment and the correction of international competitiveness take place. However, due to the large imbalances that had built up by that time, and the design and implementation weaknesses of these programs, the cost of the adjustment has been enormous. Moreover, those political and institutional reforms that would have made it impossible, or even very difficult, to return to the practices of the past were not promoted.

7. The Pandemic and its Economic Impact

In any case, and while the Greek economy seemed to have entered a mild recovery after 2017, in 2020 a new major international economic crisis broke out, due to the coronavirus pandemic (Covid-19). This crisis, which is still developing, is potentially as serious, if not more serious, than the 2007-2009 international financial crisis.

The pandemic and the restrictive measures it has demanded have deeply disturbed the world economy and of course the economy of Greece. As a result of restrictive measures to address the pandemic, global demand, global supply chains, labor supply, industrial production, commodity prices, foreign trade and capital flows have shrunk significantly. The pandemic hit both the European and Greek economies hard at a time when they were still vulnerable to new disruptions.

On the positive side, Greece is not politically isolated, as happened in early 2010. Yet, the impact of the crisis and the way it will affect the various Member States will be anything but symmetrical.

The consequences will depend not only on the severity of the pandemic and the duration and severity of the measures to contain it, but also on the specific economic side effects and the initial conditions of the various Member States, as well as the flexibility of their fiscal policy.

Once again, as in 2010, the EU and the Euro area are proving relatively unprepared to deal effectively with a major international economic crisis. The necessary reforms in the functioning of the euro area after the international financial crisis of 2010 had proceeded too slowly. However, unlike in 2010, when the cost of adjustment was passed on to the economies of the periphery, in 2020 the EU countries finally agreed to set up a significant new temporary crisis management mechanism. The agreement on the Recovery and Resilience Facility (RRF) and other initiatives totalling 750 billion euros creates a temporary mechanism to jointly deal with this latest crisis. This is a positive, albeit limited, initiative in the right direction.

Greece's economy has already been severely affected by the pandemic, the countermeasures taken to limit its spread during 2020 as well as the new global recession. The economic and fiscal impact is expected to be large due to the importance of the tourism sector and the small size of Greek firms, most of which are concentrated in the service sector, which has proven particularly vulnerable. Despite the immediate measures to support the economy, the strong contraction in production is expected to eventually affect employment. In addition, both the recession and the fiscal cost of crisis response measures will lead to a significant rise in the budget deficit and a resurgence of public debt relative to GDP.

The pandemic crisis is still developing, and forecasts are extremely uncertain. However, the immediate and short-term economic outlook appears to be particularly negative. In February 2021, the EU Commission estimated that GDP has fallen by 10% during 2020 and would remain below the 2019 level during both 2021 and 2022. Greece's government debt to GDP ratio was estimated to have risen to 207% of GDP in 2020, from 180.5% in 2019, and that it would remain above the 2019 ratio during both 2021 and 2022.

Increasing public borrowing in order to support the economy in the short term is certainly the right solution, both globally and for Greece. However, the increase in borrowing is nothing but a partial shift of the problem to the future. As in the aftermath of wars, so in the aftermath of major economic downturns, economies have to tackle the problem of debt repayment, or at least attempt the reduction of the public debt to GDP ratio.

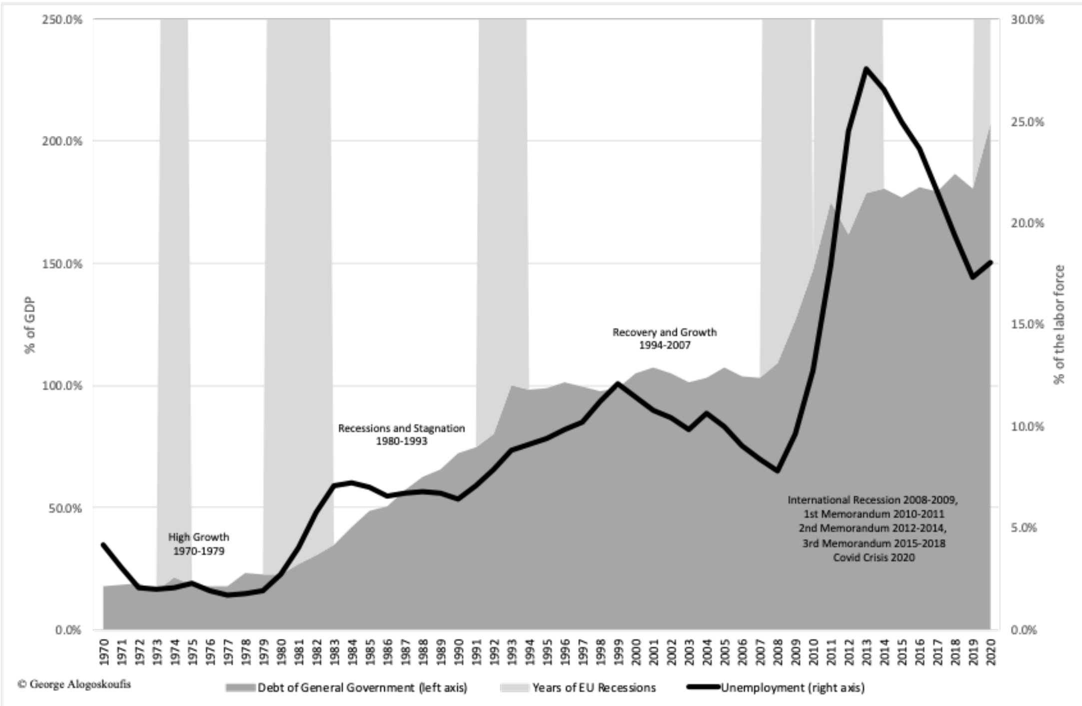
So how does one pay for the pandemic? By analogy, the question is similar to the question in Keynes' famous 1939 *Times* articles on 'How to Pay for the War'.[28]

There are three alternative methods of dealing with the large increase in public debt that is taking place after the current crisis. First, is the significant increase in taxation and reduction of primary government spending immediately after the crisis, through a policy of 'austerity'. The second is the restructuring or even the partial write-off of the debt. The third is 'gradual adjustment'. In other words, the continuous postponement of debt reduction, with the hope that the debt will gradually shrink in relation to GDP through economic growth and inflation.

Greece experienced austerity mainly in the period between 2010 and 2018. The international recession of the period 2007-2009 led to an increase in its public debt, and the austerity of the period 2010-2018 led to a dramatic decline in GDP, rising unemployment and rising social inequalities. A prolonged 'great depression'. Due to the deep and long recession, the debt to GDP ratio shot up instead of falling. From 103% of GDP in 2007, before the beginning of the international recession, and 127% of GDP in 2009, after the international recession, in 2018, with the end of the adjustment and austerity programs, public debt had skyrocketed to 186% of GDP. Despite the huge costs paid by workers, retirees and the unemployed, the effects of austerity on public debt have been disappointing. Figure 12, on how Greece's debt usually

[28] 'How to Pay for the War' was the topic, although not the title, of two long articles that Keynes wrote for *The Times*, which appeared 14 and 15 November 1939. They were subsequently amended and published under this title as a short book, in Keynes (1940).

Figure 12. Public Debt and Unemployment during Periods of Growth, Stagnation and Recession



Source: Primary Data, EC Commission, AMECO Data Base (November 2020). Data for 2020 are estimates.

rises in periods of recession and stagnation and is only stabilised in periods of recovery and growth, does not require much additional comment.

Greece experienced the second method, the restructuring and partial write-off of its debt, in 2012. Despite the problems, the results were somewhat better. The cost was paid by holders of Greek government bonds and the shareholders of Greek banks, presumably richer than the low-paid, the pensioners and the unemployed. In addition, there was even a temporary halt to the rising debt and the cost of its servicing was reduced.

However, it is doubtful whether this can be repeated in the current context. The debt problem created by the current crisis is global and does not only affect Greece or the peripheral economies of the euro area, as during 2010-2011. It is unlikely that the rich economies will risk losing their credibility to current and future investors through debt restructuring or write-offs, or that the core euro area economies, now experiencing a rising debt themselves, will accept again to pay part of the cost of debt restructuring of economies of the periphery such as Greece.

I finally come to the third method, that of 'gradual adjustment'. This is how the public debt of the US, Britain and other European economies fell relative to GDP after World War II. This is also the way in which Greece stabilised its debt-to-GDP ratio during 1994-2007. However, this solution has an important prerequisite: For a long time the nominal yield of government bonds should be lower than the sum of GDP growth and inflation.

In the first thirty years of the post-war period this was achieved internationally through rapid economic growth and 'financial repression'. The latter required state intervention in financial markets and capital controls in order to keep interest rates low. In the case of Greece in the period 1994-2007 this was achieved through the reduction of interest rates and the recovery caused by the prospect of joining the euro area and then by euro area participation itself.

The 'gradual adjustment' method has proven to be very effective in tackling large increases in public debt, usually after wars or major recessions. Britain's experience after the Napoleonic Wars and World War II is a prime example. On the contrary, the austerity after World War I or after the Great Recession of 2007-2009 led to further increases in the debt-to-GDP ratio.

Can a policy of 'gradual adjustment' be repeated in an age of liberalised financial markets and capital movements after the current crisis? If it could, a significant part of the cost of the adjustment would be passed on to the presumably richest savers, as well as to future generations, who would have had the benefit of higher economic growth. The problem is whether interest rates can remain low for the long period of time required. This may require a policy of controls in financial markets, in addition to the accommodating monetary policy of central banks. In addition, this solution carries the risk that economies will remain vulnerable for a long time to the risk of a new financial crisis.[29]

In conclusion, these are the three options before policymakers in order to deal with the increase in debt after the current crisis. In practice, they may have to partly use all three. None of the three is painless and each of them has different redistributive effects and involves different risks. What is certain is that when the pandemic subsides, all economies will have to tackle the debt problem with a combination of the above three methods.

The collective effort at European level, with the Recovery and Resilience Facility, which entails a significant transfer of resources to the Greek economy will certainly help. However, this should not give a false sense of security. Other important initiatives and reforms are needed at the national level, for a sustained recovery of the Greek economy following the current crisis.

The main question is the same as before, and will arise more starkly because of the economic and fiscal consequences of the pandemic. It is the question of whether Greece can change course and adopt policies and reforms that will lead to a strong and sustained recovery in economic activity, without the macroeconomic imbalances that developed in the decades following EU accession.

8. Prerequisites for a Sustained Recovery

Greece has no choice but to accept that, remaining a member of the euro area, it will have to adopt structural and fiscal reforms that would allow its economy to recover without the reappearance of fiscal and external imbalances.

[29] For a discussion of public debt and low interest rates from the perspective of the large industrial economies see Blanchard (2019).

Unfortunately, this was not achieved before the 2010 crisis, nor during the post-crisis adjustment period.

In order for the Greek economy to be able to complete the transition from the current crisis to a sustained recovery, it will have to immediately start promoting reforms that will combine the goal of economic recovery with that of maintaining fiscal and external balance. This requires a different mix of fiscal and structural economic policy than the ones pursued during the previous crisis or the decades before the crisis.

The challenge for the Greek economy today, even while dealing with the immediate economic effects of the Covid-19 pandemic, is the adoption of reforms that will facilitate a sustained recovery program that will not be based on excessive borrowing from abroad. It is important that the recovery is export-led, so as not to be accompanied by a further widening of the external deficit, as happened in the decade after joining the euro area.

The recovery should be pursued within the euro area, despite the constraints of Greece's participation in it. Exiting the euro is not a solution, as it poses great risks of economic collapse in the process of transition to a de facto weaker national currency, and, in the medium term, the risk of a return to the economic instability in the 1980s.

The challenge for policymakers, even while dealing with the immediate economic effects of the Covid-19 pandemic, remains the adoption of a program of reforms that will facilitate a sustained recovery within the euro area, that will not be accompanied by the fiscal and external destabilisation of the past. The task is made worse by the economic disruption due to the pandemic, but it must remain the top priority for policy makers in Greece.

The program must be formulated consensually and be endorsed by the widest possible range of political forces in the country. Consensus is a necessary condition for continuity, credibility and effectiveness of any medium term reform strategy. The same consensus is required for putting forward Greek national positions for necessary reforms at the level of the euro area.

If Greece learns from the political bickering and controversies of the past, which have caused so much economic damage, and if a minimal political consensus is formed around some of the key issues regarding the necessary reforms, the dynamic recovery of the Greek economy after the current crisis is possible. Otherwise, any results will be small and short-lived, and the Greek economy will not be able to escape the vicious cycles of recent decades.

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