

# Chapter 1: Introduction

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**July 2017**

## **Abstract**

This is Chapter 1- Introduction of Bournakis, Tsoukis, Christopoulos and Palivos (eds., forthcoming 2017), a volume of readings on the Greek crisis and the current state of the Greek economy. The Chapter provides an introduction to the Greek crisis and background to the rest of the volume. It reviews key features and recent developments in the Greek economy that may have precipitated the crisis; places it in the context of wider debates about the nature of the Eurozone and the Euro-crisis; it reviews the rescue efforts, three bailout packages ('memoranda'), the 'PSI' of 2012 and all; it provides a chronology of the crisis; and offers perspectives on the current state of affairs and future prospects. Finally, it outlines the contributions of the rest of the volume, a rich mix of political-economy and more formal analyses; those all highlight, among much else, the key themes of the crisis that are also reflected on the volume's title: debt, austerity and unemployment.

**Keywords:** Greek crisis, Eurozone, debt, bailout, austerity

**JEL classification numbers:** A32

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**Acknowledgement:**

C. Tsoukis gratefully acknowledges a six-month Senior Research Fellowship at the Hellenic Observatory, European Institute of the London School of Economics on which his contribution partly draws.

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## **1. Introduction**

After brewing for some months, the Greek sovereign debt crisis finally erupted fully in May 2010. Seven years later, at the time of writing (Spring 2017), the process that was set in train in 2010 is not yet over. With GDP in real terms down about 25% from pre-crisis levels, living standards having dipped further still due to the high taxation, unemployment close to the 25% and youth unemployment nearly 60%, poverty and inequality rising, and debt persisting at 180% of GDP despite an unprecedented fiscal consolidation, this crisis will not be a mere footnote in the country's tumultuous recent history. Apart from its own narrative, the Greek crisis and bailout process are intertwined with the global financial crisis of 2007-9 (to which some say it is a successor), the structure of the Eurozone (the architectural weaknesses of which may be linked to the crisis) and the behaviour of other countries in the Eurozone's southern flank (which underwent crisis of a different order of magnitude but of a broadly similar nature). Thus, an examination of the Greek crisis and bailout process has the potential to shed light not only on the weaknesses of a peripheral Eurozone country and on the mechanisms put in place by the EU and Eurozone to deal with it, but also on the nature of the Eurozone and the pressures it places on policy-making.

The book in hand aims to examine the country's features that have played a role in the emergence and unfolding of the crisis as well as shedding light on the crisis itself and its effects. While there is a wealth of related academic literature, popular writings and op-ed commentary in dealing with this experience and analyzing the issues and open questions, as yet there are few efforts to present an integrated analysis of this experience. The present volume aims to fill this gap. The book and its 16 Chapters are broadly-based, offering political-economy, macroeconomic as well as sectoral and other perspectives on the country, its recent economic history, experience of the crisis and prospects. They are written in a way that straddles academic style and more popular writing and should therefore be of interest to wide audiences.

This Chapter introduces the volume and provides background information to the Greek crisis. Reflecting the broad nature of the volume, it, too, is quite wide-ranging. It discusses the country's recent macroeconomic performance, possible reasons as to why the country found itself in such difficulties (beyond the immediate reason that public finances became unsustainable), it places the Greek crisis in the context of the wider Eurozone architecture and its weaknesses (according to critics), and provides a chronology of the crisis. In this context, landmark developments are discussed such as the various (three to-date) 'Memoranda' of conditions, the PSI debt relief of 2012 as well as offering an overview of the different approaches to the crisis and discussing prospects. The Chapter concludes by briefly summarising the other contributions (15) to the volume. It is sub-divided into nine Sections broadly along the above themes.

## **2. The Greek crisis in the context of wider Eurozone developments**

A consensus view of the fundamental causes of the wider Eurozone crisis, part of which is the Greek crisis (alongside the crises in Ireland, Portugal, Cyprus and even Spain) is rather elusive. Most commentators would put the blame on the structural problems of the Eurozone, but there are considerable differences in emphasis. Three different approaches would highlight the:

- Deep asymmetries and chronic imbalances of the type emphasised (as prohibitive) by the vintage ‘Optimal currency Areas’ literature: serious imbalances in competitiveness and savings/investments/current accounts/capital flows, the ensuing capital reversals and ‘sudden stops’, – Melitz 2016, DeGrauwe, 2015, Baldwin and Giavazzi 2015b, asymmetric treatment of surplus and deficit countries Moravczik, 2012, serious divergences in competitiveness, Granville (2016), deep asymmetries in nature and growth performances among EU countries and regions, Iversen and Hope (2016), Streek (2015).
- A variant of the above view (Feld, Schmidt, Schnabel and Wieland, 2016) would recognise that there were indeed asymmetric capital flows but the pathological element was that these were used to finance excessive government and private consumption spending as opposed to productive investment spending.
- Excessive indebtedness - lack of fiscal discipline, government debts and deficits.
- Imperfection and incompleteness of the Eurozone’s institutional design and ‘architecture’ lack of lender of last resort, no political union therefore no accountability of the Central Bank, no fiscal transfers, weak ECB, no banking union inadequate or flawed official handling and policy responses; Wyplosz (Chapter 2 of this volume; Melitz (2016)
- The 2007-9 (exogenous for the EZ) financial crisis.

Naturally, these points of view, or emphasis, are not mutually incompatible. Indeed, everybody would probably agree that the EZ crisis seems to have been a multi-faceted crisis and that all the above features have played some role; the question is what is the most fundamental underlying causes. While more holistic approaches (Shambaugh, 2012; Gourinchas, Philippon and Vayanos, 2016) emphasise the multiple links between the various aspects, others emphasise particular aspects: Baldwin and Giavazzi (2015a, b), Hughes Hallett and Martinez Oliva (2015) and Lane (2012) put the main blame on the external imbalances and capital flows; while Wyplosz (Ch 2 this volume) on debts/deficits and inadequate governance.

Against this background, the Greek crisis erupted in early 2010, but it had been brewing since September 2009. In the words of Micossi (2015):

“The Greek fiscal crisis acted as a detonator in two ways. It alerted the authorities and public opinions in Germany and the other ‘core’ countries to the possibility of large (and hidden) violations of the common fiscal rules; and it alerted financial markets to the risk of a sovereign default in a system where the provision of liquidity to ensure the orderly rollover of distressed sovereigns is not guaranteed”.

### 3. Summary indicators of the Greek crisis

**Table 1: Main macroeconomic indicators**

Year	RGDP	Unemp	Pri Budget	Budget	Debt	RURL	CA
2001	82.7	10.8	0.8	-5.5	107.1	74.3	-9.8
2007	104.7	84	-2.2	-6.7	103.1	83.3	-15.2
2009	100	9.6	-10.1	-15.1	126.7	85.8	-12.4
2013	77	27.5	-9.1	-13.2	177.4	87.6	-2.0
2016	78.8	24.8	2.3	-1.1	180	90.3	1.76

Notes: RGDP: Real GDP (2009=100); Unemp: Unemployment (%); Pri Budget: Government PRIMARY budget balance (% of GDP); Budget: Government primary budget balance (% of GDP; - =deficit); Debt: Public debt (% of GDP); RURL: Relative Unit Labour cost; CA: Current account (% of GDP). Source: OECD and AMECO database of the European Commission

Table 1 summarises the country's experience in the years preceding and during the crisis. The middle columns give the state of public finances (government debt and deficit) that triggered the crisis from the late 2009 – early 2010. The same columns also show the herculean fiscal adjustment that the country has achieved in the space of seven or so years (unprecedented since the Great Depression of the 1930s) but also the root of the continuing malaise: the persistence of extremely high indebtedness (despite the 'Private Sector Involvement', the drastic private sector 'haircut' of 2012). The first two columns show the cost of the crisis for the domestic economy: A real GDP that registered an increase of 25% and more during the good years of the EMU (when markets did not notice the internal and external deficits-fuelled growth and low interest rates and inflation boosted credit and consumption expansion) but that it now about 25% less than the 2001 level; and living standards that are even lower as there has been and continues to be a barrage of taxes). Unemployment has soared to the 25% mark; youth unemployment (not shown) is nearer 60%. Inequality, poverty and social exclusion, all have been rising drastically since 2010; though these phenomena cannot be captured by a few numbers, OECD data reveal that Greece's Gini coefficient was around 0.3-0.35 for the latter part of the 2000s, climbing to 0.34-0.345 around 2013. At the same time, the relative poverty rate climbed from about 0.12-0.13 to 0.15. The picture would not be complete without a look at the taxation, which (ample anecdotal evidence suggests) has been rising across the board. A recent report by OECD (2017) suggests that in Greece, the average single worker faced a net average tax rate of 25.4% in 2016 (OECD average: 25.5%). Taking into account child-related benefits and tax provisions, the equivalent tax rate for an average married worker with two children was 23% in 2016, which is the 5th highest in the OECD (whose average is 14.3%). In other words, income and social insurance contributions taxation is quite high if one takes into account what one can expect back in terms of welfare provisions, which are quite low. The same report shows some evidence that taxation increased in the first years after the crisis (but is now at 2010 levels). Of course, the high incidence of tax evasion in Greece casts some doubt on the validity of these figures. On the indirect taxation side, VAT now (April 2017) stands at 24%.

The final two columns reveal one basic reason for the country's underlying economic malaise: the rapid rise in costs (in relation to other countries) which translated into a rise in unit labour costs that could not now be compensated by currency depreciation and concomitant loss of competitiveness. As a result of the combined (and to some

extent overlapping) forces of loss of competitiveness, rise in consumption and decline in saving and the government budget deficits, the external balance (current account) deteriorated dramatically in the run-up to the crisis; it has improved since then but this is due much more to the drops in imports as a result of the recession than a sustained increase in exports. Competitiveness and external (im)balances will be touched upon in various places in this volume, particularly Chapter 16 by Bournakis and Tsoukis. Since the onset of the crisis, competitiveness has been improving due to the decline in wages (in polite lingo, this is the ‘internal devaluation’ process), but an improvement in exports remains at once a serious challenge and a paramount objective for a sustained recovery.

#### **4. Looking for culprits: What went wrong**

As with the possible flaws of the Eurozone (if any), so too is there rather little agreement on why Greece found itself at the eye of the storm. There has been a chronic tendency for rather profligate public spending and precarious public finances. Public debt/GDP has been slightly over the 100% marks since at least the early 1990s and the budget deficit has been persistently negative over that period. So much is agreed upon; the difficulty is to understand clearly the processes that led to this: Dysfunctionalities of the Greek political system (clientellism, tax evasion, corruption; the official statistics showing the state of the public finances had been ‘doctored’); weak growth, de-industrialisation, negative FDI flows (Greece was one of the major investors in the Balkans and Eastern Europe in the 1990s) that may have crowded out domestic investment; or simply a ‘historical accident’ of some imprudent and incompetent governments. All these features have no doubt played a role, but there will be scant agreement on which is the most fundamental.

A factor that is rarely mentioned is demographic change. Greece’s Total Fertility Rate was 2.4 in 1970, 2.23 in 1980 then down to 1.4 in 1990 and about 1.35 now, lower since 1990 than the EU-28 average that now is about 1.5 – OECD data – and well below the 2.1 rate that is required in order to keep a population steady. So, the country went from having one of the healthiest demographic pyramids in Western Europe to one of the weakest in the space of a few short decades. As reported in the New York Times (2017), many of the trends are shared among southern European countries and are exacerbated by the crisis: About half of the women born after 1970 will remain childless; many of the young will emigrate. Apart from the well-known consequences for national insurance and pensions, these developments will no doubt have long-run implications on fiscal systems, productivity and entrepreneurship. It is intuitively obvious that an aging population will increase the collective discount factor: all else equal, there will be less appetite for long-term solutions due to the more limited biological horizons. Such developments also cast immigration, another challenge currently facing Greece and Italy in particular, into a different light: In the longer run, young immigrant populations will play a key role towards demographic and fiscal balance. Demographic developments are surely part of the explanation for Greece’s slide towards crisis, but it is beyond our scope to evaluate their precise contribution.

The unsustainable public funding of the pension system deserves a special mention here. Former Minister of Work and Pensions (2000-1) and respected authority on the

economics of national insurance, Yannitsis (2016) provides some glaring statistics. The ‘replacement ratio’ (gross pensions to final salary) was the highest among OECD countries in 2009 at 95.7%. Since the onset of the crisis, this ratio fell dramatically (following the general falling trend but more so) and stood at 57.9% in 2013; still above the OECD average but only fractionally so (Table 6, p. 67). The public sector contributed well above 5% each year after 2000 towards plugging the funding holes of the national insurance system, reaching a whopping 9.7% in 2009. In other words, the largest part of the budget deficits of recent years was probably due to the public sector subsidising pensions. However, total spending on pensions was not particularly excessive: it stood at 13.8% of GDP in 2009, slightly above the EU-28 average of 13.2%. Since the crisis, pensions have been drastically reduced in both public and private sectors (often of the order of 40%), but the total percentage in terms of GDP increased to 16% in 2014 as output fell and more employees were incentivised to retire early. As a result of these tendencies and of the ‘haircut’ of PSI in which the government bonds that pension funds held in large amounts were wiped out, despite the drastic cuts in pensions across the board and despite the repeated overhaul of the system, the pension system’s finances remain unsustainable. The topic is becoming a focal point of generational conflict as the old are rapidly sinking into poverty while the young are called upon to fund much more generous pension provision than what they will themselves enjoy: There is in fact a vicious circle where the drop in GDP weakens further the pension system’s finances and necessitates fresh cuts, which are recessionary. Together with the Non-Performing Loans owed to banks (NPLs - see Chapter 13 by Tzavalis, Charalambakis and Dendramis), this mechanism is part and parcel of a strongly recessionary ‘fiscal multiplier’ as argued by Tsoukis in Chapter (10). As with competitiveness and exports, finding a sustainable footing for national insurance remains a serious challenge and a paramount objective on the country’s way to recovery.

Looking for culprits (causes that is, not people), it is worth debunking two myths: Firstly, Greece does not have an excessive government sector by historical and comparative standards. Historically, Greece’s total government spending has followed international trends, being close to the average of OECD and EU-15 countries. Around 40-45% of GDP for most of the 1990s and 2000s, it was about 45% on the eve of the crisis (2008). This was by no means excessive; the only deviation from the norm was perhaps that while everywhere there was a tendency for retrenchment from about 2000 on, in Greece that was not the case and there was even an increase in spending from 2007 with the onset of the international financial crisis. A similar story is told by the number of civil servants in wider government. Iordanoglou (2010) shows that in 2008 there were about one million public sector employees, or about 22% of the labour force. This is comparable to the EU-15 average of 21%. Greece did not stand out in terms of composition of spending or taxes, either. What was of course different, were the excessive (and hidden) deficits that were built from 2007 on.

Secondly, it is argued sometimes that credit growth played a part in the crisis (Gourinchas, Philippon and Vayanos, 2016). In this regard, it is worth emphasising that the bank-assets-to-GDP ratio in Greece was 173% in 2008, the lowest in the Eurozone (see Baldwin and Giavazzi, 2015b, Table 2). This is an indication of the fact that the country’s banking sector was in a good shape prior to the crisis; the crisis was not due to weak banking as, e.g., in Ireland. With the onset of the crisis, the ‘haircut’ of private debt of 2012 (PSI) and the drastic rise of non-performing loans

(close to 50% in 20016), the banking sector went into difficulties requiring successive rounds of re-capitalisation. But it should be clear that the banking sector was a victim, not a culprit.

With bank assets-GDP as an indicator of private debt, it is evident that both private and total (public+private) indebtedness were one of the lowest in the Eurozone. Interestingly, Weder Di Mauro (2015) argues that high total indebtedness was the main cause of the Eurozone crisis. That aside, there is a political economy corollary from this point: what seems to have happened in Greece is that the indebtedness was shifted from private to public sector. The culture, that the political system fails to correct and indeed crystallises, is one that views the public sphere (and finances) as a common pool for unlimited grazing. This results in a heightened ‘tragedy of the commons’ which eventually came to haunt us.

Iversen, Soskice and Hope (2016) and Streek (2015) both place the well-documented imbalances in Europe in a varieties of capitalism-theoretic framework, contrasting northern, efficiency-driven and export-oriented countries and economies, with the economically statist, domestic demand-led economies of the south. This general schema seems a good starting point for analysing the Greek experience; to which one should add de-industrialisation, demographic change and the impact on the pensions system, and the country’s dysfunctional political system. All these factors have been commented upon, except de-industrialisation. Indeed, back in the 197s and 80s, Greece seems to have suffered from the premature de-industrialisation that Rodrik (2015) identified for Latin American, sub-Saharan African and other emerging economies a generation later.

Regarding the macroeconomic dynamics that unfolded in the run-up to and immediately after the crisis (i.e. the years around 2010), Gourinchas, Philippon and Vayanos (2016) seem right when they suggest that there existed a toxic combination of faulty fiscal policies, credit growth and weak and asymmetric macroeconomic performances. For those versed in macroeconomics, this is displayed in the well-known ‘three-gaps’ equation of National Income Accounting:

$$S-I + T-G = X-Im$$

where

S: private saving

I: private investment

T: taxes

G: government spending

X: exports

Im: Imports

A number of interpretations can be given to this equation, but for our purposes it says that the credit-fuelled boom (low/negative S-I) plus a government deficit (T-G<0) were matched by an external trade deficit and concomitant capital inflows. Around the time of the crisis, all the deficits burst: so, the crisis was characterised by a ‘sudden stop’ (on the RHS above, external borrowing dried up), sovereign default (G-T>0 had to be corrected) and the bursting of the lending boom (reflected on S-I). But as argued, the lending boom did not burst until after 2009, which leaves the internal

(government budget) and external (trade deficit and capital inflows) imbalances as the key actors of the drama.

As with all accounting identities, this equation does not reveal which of the three ultimately drove the others; in technical language, it does not reveal causation. Regarding the relation between the internal (government budget) and external (im)balances, the well-known ‘twin deficits hypothesis’ suggests that causality runs from the former to the latter; but it may also be argued that weak export performance (and hence external balance) may prompt stronger government spending, thus causality could also conceivably run the other way around (as well). Indeed, constructing a novel and detailed data set on wealth and its various aspects (external and government wealth), Ippolyte (2016) argues that the external indebtedness was equally, if not more, important as a cause of the crisis than government debt. Thus, and in line with the analyses in Baldwin and Giavazzi (2015a, b), the Greek crisis could be understood as a classic balance of payments crisis in a European context, whereby hot money flows from north to south financed the pre-crisis boom; in this respect, the argument goes, Greece was no different than the other peripheral EU countries, except that it had a larger government sector. We have seen that this is probably an accurate statement, except in so far as the government sector covered the generous and unfunded social security provision. So, a more nuanced view may be that the country showed a tendency for public profligacy and a private sector that, all said, lived above its means during the euro years; but these tendencies were allowed (if not encouraged) by the abundant capital inflows that developed in the context of an asymmetric Eurozone.

## **5. A chronology of the crisis**

As already mentioned, the period following 1981 was a period of precarious public finances in Greece: Between 1980 and 1993 the Greek public debt, as a percentage of GDP, rose from approximately 28% to almost 112%. Except for the years preceding the entry of Greece into the European Monetary Union (EMU), the high levels of public debt were also accompanied by large primary deficits. This all came to a head in October 2009, when the newly elected centre-left government of G. Papandreou revealed that the actual government deficit as a percentage of GDP was going to be 12.7, more than double the 6% value that had been previously announced by the outgoing centre-right government of K. Karamanlis;<sup>1</sup> the preliminary phase of the crisis had arrived. This announcement alerted financial markets to the country’s parlous state of government finances but also to the possibility of structural weaknesses in the Eurozone. The country’s creditworthiness was immediately and seriously undermined. From 22 October to 23 December 2009, Greece’s credit rating was downgraded by all three credit rating agencies, leading thus to increased interest rates on Greek bonds. To address the concerns of the European finance ministers’ regarding the size of the Greek public debt and gain back the trust of investors and EU partners, the Papandreou government passed a series of austerity measures, but to no avail. By late April 2010, the spread between the yield on Greek and German 10-year bonds had surpassed 1000 basis points, making borrowing by the Greek government

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<sup>1</sup> The final revised figure was 15.4%.



prohibitively expensive and casting doubt over its ability to re-finance existing public debt. In light of this, and a €16bn debt maturing in May, Papandreou was forced to request financial assistance from European fellow governments: The crisis had formally arrived.

The exact deliberations under which the bailout was agreed are shrouded somewhat in mystery – see below. On 2 May, the IMF, the European Commission and the European Central Bank (ECB), collectively (and somewhat pejoratively) known as ‘Troika’ later turned to the more politically correct ‘Institutions’, agreed to offer a three-year rescue package of €110bn (of which 80 were by the EU and the rest from the IMF). In return, the Greek government undertook to implement an Adjustment Programme involving a series of cuts in public spending and structural reforms prescribed in the associated (first) ‘Memorandum of Understanding’ (‘First Memorandum’ for short). But the initial plan (and optimism) that the country would be able to return to markets on its own by 2012 proved widely off the mark: Not surprisingly, the fiscal consolidation proved deeply recessionary; so much so that (for instance) the IMF repeatedly failed to forecast accurately and had to downgrade its own forecasts (see Blanchard and Leigh, 2013). As a result of the decrease in GDP and the new loans, the debt-to-GDP ratio was on the rise. By 27 July 2011, Greece’s credit rating was downgraded to just a step above “junk.” Following such adverse events, the government of G. Papandreou was forced to resign later in the year. It was succeeded by a coalition government under L. Papademos, a respected technocrat, former Governor of the Bank of Greece and Vice President of the ECB. This government requested and agreed a second Adjustment Programme on 21 February 2012, involving a loan of €130bn in exchange for another package of austerity measures and structural reforms (the ‘Second Memorandum’).

By the end of 2011, government debt was €356bn, or 172% of GDP. Such a level of indebtedness was widely seen as unsustainable (not least by the IMF), prompting discussions and initiatives for its reduction. In Spring that year, a debt restructuring program (the ‘Private Sector Involvement’ or PSI) was completed. This involved swapping about €205bn of privately held Greek government debt (including 10bn of government-guaranteed debt of public sector enterprises) with new bonds issued by the European Financial Stability Fund (EFSF) and new government bonds. The swap involved both a considerable reduction in the face value of privately-held debt (‘haircut’) of about €107bn or 56% of 2012 GDP (but note that the debt owed to the ECB was excluded from this) and an extension of maturities, as both new bonds were of longer maturities than the bonds they replaced. The careful study of Zettelmeyer, Trebesch and Gulati (2013) calculates that in present value terms, the reduction in debt was of the order of 60-65%. To this, one should add about 10% reduction (in present value terms) achieved by the second phase, the debt buy-back (involving buying back of the newly issued bonds) of December 2012. At the end of the process, in December 2012, about 35bn euros of Greek government debt remained in private hands, or about 13% of what existed in May 2010, at the onset of the crisis. Even allowing for 25bn new loans that were provided to Greece in order to re-capitalise its banks that were hit by the haircut (as they were holding large amounts of Greek government bonds), Zettelmeyer *et al.* (2013) calculate that in present value terms, upwards of 50% of GDP worth of bond value was transferred from private creditors to Greece.

This debt restructuring and buy-back was clearly the world's largest sovereign debt restructuring ever. The next such operation was Argentina's 2005 debt exchange, which only allowed a transfer of about 22.5% of GDP. Critics, starting from the careful analysis of Zettelmeyer *et al.* (2013) but also IMF (2015, para. 46, p. 38), Wyplosz (Chapter 3 here), Pisani-Ferry (2013) and many others (including our contributors Grahl, Chapter 4 and Bratsiotis and Cobham, Chapter 5) argue that this restructuring and haircut was too little, too late. It should have happened at the onset of the crisis in 2010 or soon after. It thus failed in its main objective, which was to place on Greek government debt on a sustainable footing; which soon after started rising again (see Table 1). And although it was a carefully designed and executed, complex legal operation, it could have achieved more for Greece. Finally, there was 'collateral damage' in the heavy losses inflicted on domestic holders of Greek debt:

- Greek pension funds, contributing to the vicious circle that enveloped the pensions system, as analysed;
- Greek banks; those received a recapitalisation sweetener of 25bn euros which however was registered under Greek debt; and ownership changed hands as a result of that;
- Cypriot banks that were similarly exposed but were not entitled to recapitalisation, thus leading to the Cypriot 'bail-in' of March 2013 (Michaelides, 2014).

Fresh elections took place in May and again in June 2012, which led to the formation of another coalition government headed by the centre-right party leader A. Samaras. Despite the new bailout program and the austerity put in place, there were no signs of recovery by the end of 2014. The government of A. Samaras was also essentially forced to declare early elections. On 25 January 2015, the left-wing SYRIZA won the elections on the promise of ending all austerity and getting the country out of the previously signed two Memoranda; a new coalition government was formed with the small, right-wing party of Independent Greeks (ANEL). With the flamboyant Y. Varoufakis in office as new Finance Minister, a long process of negotiation with the lenders started, which lasted until June. Varoufakis' (and Greece's) main argument was that the policies mandated by the three 'Institutions' (IEU Commission, ECB and IMF, or 'Troika') were recessionary and led to an austerity-debt vicious spiral. Creditors, while recognising Greece's substantial efforts in undertaking adjustment and stabilisation policies, maintained that Greece needed to pursue the structural reform agenda in a more determined manner. Without a final agreement between Greece and the three Institutions and the expiration of the second bailout programme just around the corner, in June the ECB froze the Emergency Liquidity Assistance (ELA) for Greece, which was the main mechanism for providing liquidity to Greek banks. Matters came to a head when Greece was offered a "take it or leave it" deal in the Euro Group meeting of 27 June 2015. At that point, Prime Minister Tsipras announced a referendum on a new bailout agreement on offer for 5 July. Following the announcement, all banks in Greece were closed and strict capital controls were imposed. On 30 June, Greece became the first developed economy to miss a payment on an IMF loan and fall into arrears. The pre-referendum period was very short (barely a week) but the atmosphere quite tense; talk of 'Grexit' (from the euro) abound across the world. Despite an over 61% vote against a new bailout agreement, the Tsipras government was eventually forced to accept a deal for a new €86bn bailout programme extended over three years (the Third 'Memorandum'). It is worth pointing out, and that is a widely shared interpretation invoked by Tsipras, that at every point, the great majority in the country advocated staying inside the euro; the

proponents of a new drachma were a narrow minority. Tsipras' argument was that the referendum result was against the bailout and its terms, not the euro.

Nonetheless, signing the new bailout agreement was a humiliating *volte face* for Tsipras; despite this, SYRIZA was voted again into power in snap elections in September 2015. With the mild-mannered E. Tsakalotos having replaced Varoufakis as Finance Minister, the SYRIZA government continues the same course as predecessor governments: keep taking the (bitter) pill of compliance with the Memoranda in an effort to meet the creditors' demands, secure financing and keep the country in the euro. Nearly one and a half years later, at the time of writing, the same themes dominate the news agenda: Creditors accuse Greece that it fails to comply (or does so only half-heartedly) with the provisions that it has signed; while Greece is wary of seven years of painful austerity and recessionary policy measures. Despite Grexit having waned from view (partly eclipsed by discussions around Brexit), there continues to be some uncertainty regarding the implementation of the third 'Memorandum' and its associated conditionality. Disagreements between the Greek government and the creditors regarding the reforms that are necessary to restore the country's competitiveness and jumpstart the economy delay the closure of the second review of the programme. As a result, Greece remains outside the ECB's Quantitative Easing programme, with all the recessionary consequences that this entails.

## **6. Current outlook and prospects**

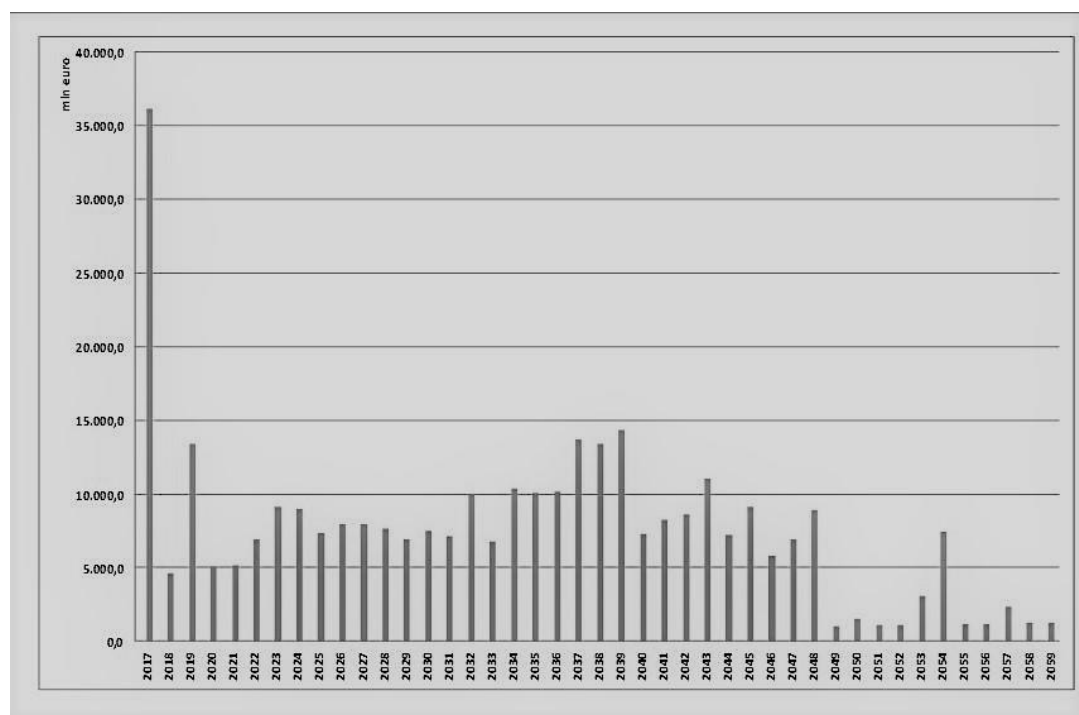
Though talk of Grexit has disappeared from the discussion, the Greek bailout process is not over. Currently, there is a review of compliance by Greece to the conditions set by the Institutions (creditors) (that Greece has – supposedly - agreed to) in order for a new tranche of about €7bn of funds to be released in July 2017 to finance maturing bonds. At issue is further reform of labour markets – the call is for further liberalisation, further reform of pensions, and further fiscal consolidation (on both sides of the balance, i.e. further cuts in wages and other expenditures and increases in taxes) and privatisations. Greece has already achieved a record adjustment, as mentioned, with 2016 having ended with a record primary budget surplus of 3.9% and an overall surplus of 0.7% (figures confirmed by Eurostat 24/4/2017). At stake now is whether such surpluses are sustainable in the medium term. The issue of whether such conditionality, further structural reforms (or liberalisation) and austerity make sense will be touched upon below and will be taken up at various places in this volume, particularly in Chapters 3 by Rodrik, 6 by Karanasos *et al.*, and 11 by Tsoukis.

Two particular issues that currently fuel uncertainty concern the participation of the IMF and the longer horizon. Acknowledging the fact that, at about 180% of GDP, Greece's debt remains unsustainable (IMF, 2015) and bound by its constitution not to lend when the probability of recovering the loans is not high, the IMF appears reluctant to renew its funding when it expires and wishes only to provide technical (advisory) assistance. The EU on the other hand wants the IMF to play a full part in the bailout (that is the condition under which the Third Memorandum and bailout was voted through by the German Parliament). The IMF wishes to see a further reduction in Greek debt (if not a nominal haircut, at least a prolongation of maturities and reduction of interest rates), something resisted by the EU; it argues that persistent

primary surpluses of the order of 3.5% of GDP currently agreed until at least 2020 if not longer are not sustainable for long. Against this, the IMF wants to see a more drastic reform and liberalization agenda, though the latest pronouncements (interviews by C. Lagarde and M. Obstfeld before the Spring Assembly) suggest that the IMF thinks that Greece has already done enough on this front (see also the blog by Hagan, Obstfeld and Thomsen, 2017). So, currently the exact terms accompanying the pending tranche of €7bn remain yet to be finalised; and the discussions about a further debt relief are being pushed back yet again. The second point of uncertainty is what happens after the end of the current (third) Memorandum and financing programme; the German government has made it clear that there will not be another one. This implies that if Greece wants to stay in the euro, it must raise the funds required for it to meet the interest and maturing bond payments from 2019 and beyond in the markets.

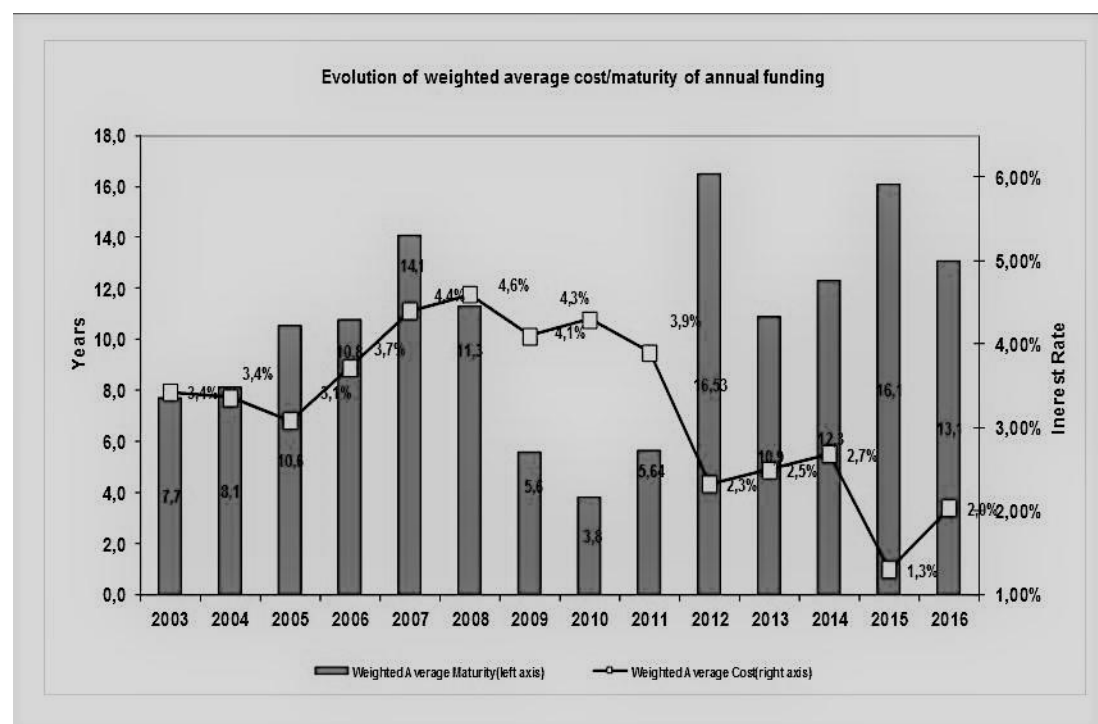
Nominal debt remains persistently high but its maturity structure has been changed at various points and is now quite long; interest rates are very low. These features have been facilitated by the fact that almost all the debt, following the PSI of 2012, is now official (owed to the ECB, European Stability Mechanism – ESM, national governments and the IMF). As a result, in present value terms, Greece's debt has been calculated as no more than 100% of GDP (Schumacher and Weder di Mauro, 2015; the IMF's estimates are in IMF 2015, 2016); see Chapter 7 by Wickens for more on the country's fiscal (in)solvency. To conclude this part, we review the schedule of payments that need to be made from now on and the cost of servicing the debt in the years ahead (Figures 1 and 2). It has been pointed out that the average interest rate and the cost of servicing the debt is one of the lowest in Europe and the lowest Greece has had in the past 20 years (Christodoulakis, 2016). All these features suggest that the debt should be sustainable. We return to the issue of debt sustainability below when we take stock.

**Figure 1: Greek Debt Maturity Profile**



Noes: As of 31-12-17; unit: millions of euro; source: Public Debt Management Agency of Greece (PDMA), accessed 8/4/17. <http://www.pdma.gr/en/public-debt-strategy/public-debt/maturity-profile-en>

**Figure 2: Greek public debt: Cost of annual funding and average maturity**



Notes: Weighted average cost of annual funding (as a % of GDP, RHS) and average maturity (LHS) as of 31-12-17; source: Public Debt Management Agency of Greece (PDMA), accessed 8/4/17. <http://www.pdma.gr/en/public-debt-strategy/public-debt/historical-characteristics/weighted-average-cost-maturity-of-annual-funding>

## 7. Taking stock

The purpose of this section is to take stock and critically evaluate, to the extent possible, the process so far. Starting from the obvious, Greece went essentially bankrupt in 2010 and was only able to state afloat with the ‘clinical support system’ of EU and IMF financial assistance. Clearly, this assistance enabled the country to avoid a disorderly default and a concomitant fiscal correction overnight; in which case, the economic and social cost would have been a lot higher. Greece borrowed from countries even poorer than itself so that it could maintain a fraction of its former living standards and it is grateful for this support. It also became clear quickly (though only implicitly) what a disorderly default would have implied: Exit from the euro; which the vast majority of public opinion in Greece always wanted to avoid, as mentioned. Against this, the country has paid and continues to pay a heavy price in terms of fallen living standards, high unemployment and rampant impoverishment of large swathes of former middle classes (particularly pensioners). Though some measure of growth will sooner or later return, it will take decades for living standards to be restored and unemployment to come down to normal levels (on that, see Chapter 12 by Bournakis and Christopoulos).

Because of labour market weakness but also under the guise of structural reforms, the labour market is in practice completely liberalised and deregulated – with only token bargaining, wages in arrears and (illegal) payments in kind; non-performing loans due to banks are now close to the 50% mark, the stock market and housing market practically dead (on all these, see Tsoukis, Chapter 10), banks in repeated need of re-capitalisation and now practically owned by the ESM; public enterprises – even profitable ones – are up for fire-sale: Greece is a different country than a few years ago and, whether good or bad, inevitable or not, much more neoliberal. Not all is bad though: As part of the conditionality, the country has had to modernise: The Statistical Authority (ELSTAT), the Public Debt Management Agency, the Public Revenues Authority, all now are independent authorities with executive powers; political meddling with them is no longer possible. There is a more concerted drive for combating tax evasion; there is a renewed drive for reducing red tape and increasing transparency. At the same time, serious challenges remain, listed in no particular order: Increasing competitiveness and the economy’s export orientation (see Chapter 16 by Bournakis and Tsoukis); further reform of the pensions system, part cause and part effect of the current malaise; reform of the tax system, with the aim of making it simpler and fairer and of reducing tax evasion; reform of the public sector, making it more productive and efficient; reform of the justice system which is impartial but overloaded and very slow. The list goes on.

Is this all inevitable? Could it have happened differently and could the country been spared the hardship? Discussion of these and many other related questions often revolves around two narratives. We present the outlines of the arguments here, while we take up more specific points as the discussion unfolds later on. The ‘mainstream’ narrative (Feld, Schmidt, Schnabel, Weigert and Wieland, 2015; Feld, 2016; Feld, Schmidt, Schnabel and Wieland, 2016) recognises that the prescribed path is hard but argues that it provides generous financial assistance, in contravention to the EU Treaties that do not allow bail-outs, and will eventually lead to recovery. As part of the assistance, the generous PSI of 2012 took place and the official debt is offered on generous terms, both allowing a drastic write-down of Greek debt in present-value

terms. The narrative argues that the assistance is provided against promises to put public finances in order and to engage in reforms of the labour and product markets that will restore growth. Thus, the ‘mainstream’ narrative is constructed around basic logic and principles of international finance, but also ‘ordoliberal’ principles of respect for rules, ‘hard budget constraints’, ‘liability-and-control’ and the balance between rights and obligations. All these are required to safeguard and cement a union between sovereign states and buttress the credibility of the euro. It recognises the conflict of interest between creditors and debtors but argues that no creditor would want to lose money. It lays down ‘red lines’ in precluding any permanent transfer systems such as outright debt forgiveness, eurobonds or more fiscal transfers in the EU other than the existing ones (from the Structural Funds). This line of thinking barely mentions the German debt forgiveness of 1953 (of which Greece was a signatory); of course, circumstances were different.

The ‘critical’ narrative takes aim at the overall direction of the conditionality programme as well as the specific policy choices of the crisis; in this light, it argues that the hardship is unnecessary. Literature here abounds and we draw liberally from Ardagna and Caselli (2014), Baldwin and Giavazzi (2015), Copelovitch *et al.* (2016), Moravcsik (2012), Streek (2015), Watkins (2013, 2014) and Wyplosz (Chapter 2 in this volume), as well as renowned economic commentators such as Paul Krugman and Simon Wren-Lewis, among others; this literature, often critical in varying shades, offers valuable perspectives and critiques of the Greek and broader eurozone crisis. In our volume, the ‘critical’ narrative is represented by Chapter 2 by Wyplosz, 4 by Grahl, 5 by Bratsiotis and Cobham and 6 by Karanasos *et al.* The ‘critical’ narrative would start from the fact that Greece’s malaise is inextricably bound with the Eurozone’s structural weaknesses and asymmetries; the deficits of Greece (and the wider southern EU) were permitted (financed) by the north’s surpluses and hot money flows. Against that two-sided coin, the burden of adjustment falls entirely on debtors. That is of course true, except that non-one noticed, much less complained, when that was happening. And Greece’s fiscal profligacy (and sugar-coated if not downright cooked statistics) is undeniable. Equally undeniable is however the fact that the burden of adjustment is asymmetric as are the benefits of the euro (Moravcsik, 2012; Granville, 2016). Furthermore, this narrative notes the political asymmetries of an inter-governmentalist, German-led Europe, with the Bundestag and the German Supreme Court being the arbiters of the major decisions; the largely cosmetic European Parliament has sunk further into unimportance, being a collateral damage of the crisis. On the policy front, the harsh austerity has drawn sharp criticism; as has the fact that the PSI was too little/too late; and the fact that when the ECB withdrew liquidity from Greek banks in June 2015, forcing the imposition of capital controls, it contravened its own constitution as a Central Bank co-owned by Greece (Wyplosz, Chapter 2). Against that, one could argue that there was no way that policy mistakes could not have been committed in such a process of sailing into uncharted waters and that we are all wiser after the fact.

Any concrete balance sheet should include the actual financial flows, the ‘smoking gun’: Following the careful studies of Rocholl and Stahmer (2016) and Triantopoulos (2015), we have a clear idea about how the monies from the First and Second Programmes (of 2010 and 2012) were disposed: According to the first of these studies, these programmes amounted to €215.9bn in disbursed funds, €73bn from the first programme (against a planned amount of €110bn) and €142.9bn from the second

programme (planned: €140bn). In sum, the IMF disbursed €32 billion and the EU €183.9bn. Importantly, Rocholl and Stahmer (2016) calculated that only €9.7bn, or less than 5% of the total amount of €215.9bn, directly contributed to the Greek budget. More than 64% (€139.2bn) was used to service existing debt (repay maturing bonds and make interest payments); 17% (€37.3bn) was used to recapitalise Greek banks, while the remaining 14% (€29.7bn) provided incentives for investors to engage in the Private Sector Involvement (PSI) in March 2012. Triantopoulos (2015) reports similar (though not identical) numbers.<sup>2</sup>

Next come the motives. Going back to the start of the crisis in May 2010, there seems to have been some initial German reluctance for a rescue; this was later overcome at American insistence. Key must have been the realisation that a Greek disorderly default would have jeopardised the viability of major German and French banks that were heavily exposed in loans to Greece (and were fresh from the tumult of 2007-9); and would have perhaps fatally undermine the euro itself (whose credibility would have suffered a major blow with the first departure). Critics argue that the main motive was to save the banks rather than Greece, but further cash for banks in the wake of the financial crisis would be politically unacceptable, hence it was disguised as saving Greece (Ardagna and Caselli, 2014; Watkins, 2014). Moreover, the PSI and ‘haircut’ of 2012 was only agreed after the said banks had unwound their positions in Greek debt (Watkins, 2014).

But no rescue package could be unconditional: ‘No guarantees without control,’ said Mrs Merkel according to then US Finance Secretary Tim Geithner’s memoirs (see Watkins, 2014). Thus, the EU requested the technical assistance of the IMF which had a long experience in adjustment programmes (‘conditionality’) related to bailouts. Yet, as discussed in Chapter 10 by Tsoukis, such conditionality is by no means uncontroversial. We have already seen that the IMF has consistently underestimated the recessionary effects of austerity in Greece (Blanchard and Leigh, 2013; Pisani-Ferry, Sapir and Wolff, 2013; Wyplosz, 2017); we comment below on what appears to be a recent shift in the IMF’s thinking on Greece. Broader experience from countries which have gone through such programmes is at best mixed; at worst, downright negative (Barro and Lee, 2005; see also Dreher, 2009). The literature argues almost with one voice that a pre-condition for success of adjustment programmes is ‘ownership’, the wholehearted espousal of the reform agenda by the country in question (see Dreher, 2009, and the many studies he cites); furthermore, ownership should be construed not only as the willingness to carry out a program, but also as the technical capacity to design and implement it and the political ability to do so (Drazen and Isard, 2004). As Rodrik (Chapter 3) analyses, none of these conditions is in place in Greece; all recipes were designed outside the country, being a ‘laundry list’ of clichés as opposed to a series of carefully thought out, prioritised reforms that address the key ‘binding constraints’ that impede growth. Surely a VAT of 24% contradicts the main objective of achieving competitiveness. Moreover, as Tsoukis (Chapter 10) suggests, the theorem of the ‘second-best’ tells us that such structural reforms will work in a reasonably well-functioning economy; in abnormal situations, more reforms may lead us away from the main objectives: Structural reforms, much needed in many cases from a long-term perspective, will be recessionary in the short

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<sup>2</sup> We thank Professor P. Liargovas and Dr. A. Lyras of the Parliamentary Budget Office for helpful information on these matters.



run and therefore counter-productive. The ‘mainstream’ counter-narrative is that Greece’s main problem is that it never produced a coherent plan of its own; and it has only half-heartedly adopted and implemented the reforms. Apparent on both sides, creditors and Greece, is a kind of fatigue: Ardagna and Caselli (2014) speak of a Laffer Curve of reform effort and political will. From Greece’s point of view, there is a feeling that whatever the country does is never enough, and more will be asked in the next round of negotiations.

Debt remains a point of contention between Greece and creditors. As we have seen, it is persistently high, prompting calls for further debt relief (see e.g. Pisani-Ferry, 2016). But (the mainstream view would argue, with some justification) its profile and average cost of service render it sustainable (see Christodoulakis, 2016). Against this, financial markets will know the debt overhang, and the resulting premia and overall uncertainty will postpone recovery. For this reason, Greece’s standard demand is further debt relief, a demand that meets the steadfast refusal of creditors (Feld, 2016); the argument is that the PSI, maturity extension and lowering of interest rates were generous enough and a further face-value haircut is out of the question. In any case, there has been talk of a further debt relief (in the form of altering the profile, not nominal cut) since 2012; every time, a possible settlement is getting postponed till after ‘the completion of the current programme’.

The political asymmetries related to the crisis have been mentioned; they apply to Greece in an amplified way. Though the theory is that the Troika of Institutions will not ‘dictate in detail’ the adjustment programme and the reform process (Feld *et al.*, 2015), the theory is far from the practice: There is in fact micro-management of a rather humiliating kind, that erodes both sovereignty (when important policies are dictated to the country by low-key technocrats) and democracy (when Parliament is reduced to rubber-stumping take-it-or-leave-it ‘offers’ of agreements). Rodrik (2010) drew an early lesson from the Greek experience, noting the incompatible trilemma of economic globalisation, political democracy and the nation-state. There is often talk of what creditors may find politically acceptable with their electorates and such considerations did indeed inform the terms of the assistance packages that Greece and the other countries got (Blanchard, 2012, 2015) but never what terms debtors may find politically acceptable. In terms of wider politics, there have been five national elections since September 2009, resulting in four Prime Ministers (excluding caretakers). In a country where government and Prime Ministers used to stay in office normally for the best part of a decade, this despair-fuelled ‘high-frequency’ politics seems to be the water-mark of the crisis.

## **8. A proposal**

We pointed out above that one may discern two narratives about the Greek crisis, the mainstream one that argues essentially that Greece must continue to take the bitter pills and the critical one that argues that the country has suffered gratuitously (this is of course to exaggerate and over-simplify). We finish with a third, ‘middle-of-the-road’ narrative and a policy proposal that follows from it. This recognises the harsh reality of the (any, in fact) adjustment programme as inevitable; it argues that financial assistance was both necessary and generous, and is agnostic about various

aspects of the other narratives, bypassing any questions of fairness. The main point is that the current conditionality is self-defeating as it keeps the country in recession (see e.g. House and Tesar, 2017 for estimates; and Chapter 10 for more details); in doing so, it violates some of the key ‘commandments’ of proper fiscal adjustments stipulated by Blanchard and Cotarelli (2010) and much macroeconomic analysis related to the ‘fiscal multiplier’ (see the Chapter). As a result, the present-value of the receipts (primary surpluses) that creditors will receive is lower than it could be, even though the mandated surpluses are quite high. To this, one may add the related criticism of Eichengreen and Panizza (2014) that such high surpluses are not sustainable for long, either economically or politically. The Chapter’s analysis shows the existence of a ‘debt Laffer Curve’ with a maximum sustainable primary surplus that maximises the present value of payments to creditors while at the same time returning the country to growth. The policy corollary of this analysis is that the primary objective now should be a return to growth by a combination of partial relaxation of austerity (as argued in Chapter 10 by Tsoukis) and an agenda of focused structural reforms targeted at the main ‘bottlenecks’ that hinder growth and export performance, as pointed out in Chapter 3 by Rodrik. The pursuit of excessive austerity is self-defeating, while, as Chapter 16 by Bournakis and Tsoukis argues, an improvement in competitiveness takes much more than a simple (and drastic) internal devaluation and broad-brush but unfocused reforms. All of this of course requires Greece to formulate its own credible reform agenda and to pursue it vigorously. Some additional debt relief, in the form of extension of maturities and reduction in interest rates if not outright haircut, may be necessary. And it will be very helpful if the required surpluses were growth-indexed, along the lines of Sachs’s (2011) suggestion at the outset of the crisis.

## **9. Summary of the contributions to this volume**

As mentioned, this volume offers an integrated overview of the Greece’s economy and its experience since 2010. The rest (sixteen Chapters) of the volume take up themes flagged up in this Introduction in more detail. These contributions are broadly-based, offering political-economy, macroeconomic as well as sectoral and other perspectives on the country, its recent economic history, experience of the crisis and prospects. They are written in a way that straddles academic style and more popular writing, aiming to be accessible and of interest to anyone interested not only in the Greek experience as such but also the experience of the Euro and European integration at large.

In Chapter 2 (The Eurozone crisis: A near-perfect case of mismanagement), Charles Wyplosz presents a wide-ranging, sharp criticism of the policy decisions, and mistakes, of the Eurozone in the handling of the Greek and wider crises. It is argued that the imperfections in the institutional setup contributed a lot to the Eurozone crisis. The wrong concept of fiscal discipline, the inability of the ECB to act as lender of last resort, absence of a banking union, they all allowed some public debts to increase dangerously; the lack of comprehension of the crisis by political leaders led to contagion and a deep depression. Some of the institutional flaws have been dealt with, but partially so. Existing institutions have been unable to design timely and adequate policy responses. The Commission has limited itself to imposing pro-cyclical

austerity policies. The “Community method” has given way to inter-governmentalism. The dramatic economic and social impact of the crisis has left a disastrous perception of Europe, with potentially momentous costs in the long run.

In Chapter 3 (Structural Reforms in the EU), Dani Rodrik reconsiders the notion of and rationale for ‘structural reforms’. Structural reforms are changes in labour and product markets as well as wider institutional changes that aim to increase the efficiency with which labour and capital are allocated in the economy, ensuring that these resources go where their contribution to national income is largest. If successful, such changes promote productivity, investment and growth. Structural reforms are often part of the conditionality accompanying financial assistance, and the assistance offered to Greece since 2010 is no exception; in fact, the package of required structural reforms is quite demanding. But their positive effects are often grossly overestimated; they are uncertain, they accrue only in the long run and will affect (if and when) only potential output. Convergence of actual output to potential output is very slow, at best. So, Greece, having already achieved a lot in terms of structural change, can only benefit marginally from more reforms in the near future. From a wider perspective, it is argued that ‘growth accelerations’ (on which the author has worked with Ricardo Hausmann and Lant Pritchett) are the results of selective, targeted reforms that address the ‘binding constraints’ that an economy faces, the key obstacles to growth rather than broad liberalisation and economy-wide reforms. With co-authors Ricardo Hausmann and Andres Velasco, the author has identified such binding constraints in various economies. In this light, the author argues that the broad reforms required of Greece are misplaced; in contrast, a better prioritized reform strategy should focus on promoting exports.

‘If you break it, you own it’, argues John Grahl in Chapter 4 (The Responsibility of the EU). The author takes a critical political economy approach to the whole strategy adopted by the EU and its constituent authorities (ECB, Commission, EFSF and ESM) as well as the IMF towards Greece once it became clear that the country is insolvent. It argues that the main responsibility for the continuing debacle over a country whose debt is of the order of 2% of EU GDP lies with the EU and its overall approach – which is not to ignore or downplay the serious failures and weaknesses of Greece itself. Particular themes of the critique include the fact that co-responsibility for the country’s excessive indebtedness lies also with the lenders who financed the exorbitant debts in the first place; but who then were fully rescued, at least in the beginning. The country has had very little political clout over the adjustment programmes that have been imposed on her, micro-management of which from outside seriously erodes its sovereignty and democracy. The resulting austerity has been largely self-propagating and self-defeating, plunging the country into a permanent recession for generations to come, with grave social consequences.

Germany has played a key role in co-ordinating (and of course, funding) the financial assistance that has been provided to Greece and other countries involved in the Euro-crisis. This is the point of departure for George Bratsiotis and David Cobham in Chapter 5 (On the institutional responses to the Euro crisis: Is there a role for ‘German Macroeconomics’?). The authors first ask whether there is something different about the macroeconomic thinking that prevails in Germany, which leads the German government to argue for different policies from those which many other policymakers and economists put forward. They give a qualified positive answer to this question,

and then consider the distinctive attitudes held by the German government and/or central bank with respect to the process of monetary integration in Europe and then to the Eurozone crisis. They argue that German opposition to the use of expansionary fiscal policy and of unconventional monetary policy has made a major contribution to the failure to deal appropriately with the Greek crisis or to bring about a strong recovery in the Eurozone.

The Greek and wider Eurozone crisis (or crises?) have attracted a lot of attention in both the academic literatures but also in more popular writings by commentators. At the crossroads of these two literatures one can find the writings of academic economists who write in blogs and op-eds, exploiting the immediacy and speed that technology provides. In Chapter 6 (Austerity and the Greek Dra(ch)ma: Three economists's views and a comment), Menelaos Karanasos, Panagiotis Koutroumpis, John Hatgioannides, Marika Karanassou and Hector Sala summarise the opinions of three internationally respected authorities (two Nobel laureates among them), namely Paul De Grauwe, Paul Krugman and Joseph Stiglitz, on the eurozone crisis as well as the Greek case. Thus, this Chapter provides a different angle to much of the discussion of this Introduction and the rest of the volume. All three have expressed various reservations about the single currency. While De Grauwe and Stiglitz have highlighted the design failures of the Eurozone, Krugman has argued that the creation of the common currency was a terrible mistake. In support of their claims we provide evidence of the negative consequences of the austerity measures that were implemented by the troika on the Greek economy for a period covering 2010-2014. After seven years of austerity, Greece has experienced significant deflationary dynamics, deep recession as well as high unemployment rates.

The departure point of Chapter 7 (A macroeconomic perspective on the Greek debt crisis) by Michael Wickens is that, according to the Greece's credit ratings, the probability of default for a 10-year Greek government bond in 2015 was at least 0.4; in other words, the country was practically bankrupt. The Chapter investigates how this state of affairs arose and what are the policy options for the country to avoid default. Part of the problem has been a consequence of its political choices, part a failure of fiscal policy and part the result of being in the euro. The political choice over the last nearly forty years was to raise the size of the public sector in Greece's quest to become more like those of its northern European neighbours. The unfortunate fiscal failure was that its tax revenues did not keep pace with its public expenditures which resulted in a huge increase in its level of debt. Another political choice, it is argued, was the decision to join the euro, which has exacerbated the country's financial problems of Greece. Although the emphasis has been on the debt crisis, as it is of immediate concern, the longer term problem is Greece's competitiveness and the effect this has on economic growth and hence tax revenues. In order to survive within the euro system, the country needs to modernise and become more productive and efficient. Additionally, though Greece has already done much to improve its fiscal stance, it still needs to go further and generate permanent primary surpluses. The current rescue package requires surpluses of the order of 3.5 percent of GDP for the medium term. Alleviation of the debt burden (either outright write-downs or extensions of maturity and reduction in interest rates) would, of course, make the task of debt management easier. The alternative is for Greece to leave the euro area and probably default on its debt. It would still need to carry out the same fiscal reforms,

and it would bring other short-term costs, but there would be considerable long-term benefits. These are tough choices but they are the only way that Greece can re-take control of its economy. In other words, the author concludes by making the economic case for Grexit. A prospect that does not command much support in the country, as argued above, as surrounding the economic arguments will be social and political ramifications that may dwarf any economic benefits.

In Chapter 8 (On the role of the credit rating agencies in the Euro zone crisis), Periklis Boumparis, Costas Milas and Theodore Panagiotidis examine the determinants of credit ratings for 18 Eurozone countries over the period 2002-2013. Sovereign credit ratings are decomposed into high and low ratings, the high rated being AA- and above, and the low rated being A+ and below. The authors consider a set of macroeconomic and risk variables as their determinants. First, they find greater explanatory power for the former sample (high rated). Second, the results reveal an asymmetric response of cumulated current accounts for high and low ratings. Third, the Chapter provides evidence that the fiscal and the external sector are significant after 2009 only for the low rated economies. Focusing on Greece, evidence is shown that the government debt and cumulative current account played a significant role in the downgrade of Greek bonds.

Chapter 9 (The Greek Great Depression: A General Equilibrium study of its Drivers) by George Economides, Apostolis Philippopoulos and Dimitris Papageorgiou provides a quantitative study of the main determinants of the Greek great depression since 2010. The authors use a medium-scale DSGE model calibrated to the Greek economy between 2000 and 2009 (the euphoria years that followed the adoption of the euro). Then, departing from 2010, simulations show that the fiscal policy mix adopted, jointly with the deterioration in institutional quality and, specifically, in the degree of protection of property rights, can explain essentially all the total loss in GDP between 2010 and 2015 (around 26%). In particular, the fiscal policy mix accounts for 14% of the total output loss, while the deterioration in property rights accounts for another 8%. It thus naturally follows that a less distorting fiscal policy mix and a stronger protection of property rights are necessary conditions for Greece's economic recovery.

Austerity and 'fiscal consolidation' is motivated by the need to put public finances in order but, because it causes a recession and a reduction in GDP, its effectiveness on the debt-GDP ratio may prove a double-edged sword. Though this is widely suspected, indeed supported by literature (House, Proebsting and Tesar, 2017; De Grauwe and Ji, 2013), it has not yet been crystallised in basic theory. Chapter 10 (The limits of austerity: The fiscal multiplier and the 'debt Laffer curve') by Christopher Tsoukis embeds this idea into a simple formal framework of public finances and discusses austerity, conditionality and structural reforms more widely. It asks whether there is any maximum public debt-GDP ratio that is serviceable when one allows for the fiscal effects of the required primary surpluses (the 'fiscal multiplier'). This simple but novel approach yields a debt Laffer Curve that defines the debt and deficit (as ratios over GDP) that may be feasibly sustained. Next, the Chapter reviews estimates of the fiscal multiplier and argues on this basis that the maximum sustainable debt-GDP is likely less than 100% and the maximum feasible primary surplus is less than the 3.5% required by Greece's creditors for the medium term; this analysis shows that insistence on such targets will be self-defeating. Finally, the

Chapter critically reviews structural reforms, a key pillar of the conditionality imposed on Greece. The policy corollary is that the paramount objective for both Greece and its creditors should be the return to high rates of growth, and currently this requires relaxation of austerity above all.

The underground economy is quite prominent in Greece (though by its nature, the topic does not allow confident, concrete estimates) and this complicates the estimation of the effects of fiscal policy as well as the efforts for fiscal rationalisation. This issue motivates the next Chapter 11 (Fiscal Consolidation Policies and the Underground Economy: The Case of Greece): Evi Pappa, Rana Sajedi and Eugenia Vella examine the effects of fiscal consolidation policies using a New Keynesian model with an underground sector, calibrated for the Greek economy. They find that spending cuts induce a reallocation of production towards the formal sector, thus reducing tax evasion. On the other hand, tax hikes increase the incentives to produce in the less productive underground sector, implying higher output and unemployment costs. The model is used to assess the recent fiscal consolidation plans in Greece. The results provide evidence of an increase in underground activity during these consolidations. They also reveal significant output and welfare costs, which are exacerbated by the presence of the underground economy.

High and prolonged unemployment is one of the main social costs of the Greek crisis; this is the theme of the next Chapter (12), titled ‘Output and Unemployment: Estimating Okun’s Law for Greece’, in which co-editors Ioannis Bournakis and Dimitris Christopoulos estimate Okun’s Law for Greece over the period 1960-2015. Their analysis indicates that the growth-unemployment nexus in Greece is subject to non-linearities with the existence of lower and higher growth rate regimes. The critical growth rate threshold is found to be at the 1%. Accordingly, the elasticity of unemployment is estimated to be 1.47% when the economy grows at a rate above 1% while unemployment falls by 1.21% when the economy expands at a rate below 1%. These estimates indicate a rather gloomy prospect for the reduction of unemployment in Greece’s present economic climate. To restore employment to the pre-crisis level, a period of 11 years is required if the growth rate is at the upper regime - above 1% - while this time horizon increases to 13.4 years if the economy is at the lower regime - below 1%.

The topic of Chapter 13, titled: ‘On the Determinants of Non-Performing Loans (NPLs): Lessons from Greece’ by Elias Tzavalis, Evangelos Charalambakis and Yannis Dendramis, is NPLs, which are rising meteorically, with serious implications for the financial viability of commercial banks (which have been repeatedly capitalised for this very reason) and for the effects of austerity (the fiscal multiplier, which is larger downwards, as argued). In particular, the Chapter investigates the relationship between NPLs and their fundamentals, mainly bank and macroeconomic variables. This is done based on aggregate portfolio loans in the Greek economy. It is argued that Greece constitutes an interesting case for studying the factors determining NPLs, given the pervasive recessionary conditions that have characterised it, since the outbreak of the crisis in 2010. The Chapter proposes a new econometric framework which extends the SUR (seemingly unrelated regressions) framework to allow for a common break in its slope coefficient of unknown date. The results reveal that the deterioration in the macroeconomic conditions (captured by very high rates of unemployment) and political uncertainty constitute key factors of explaining the sharp

rise of NPLs of the Greek banking sector after the first quarter of year 2012. With the exception of bank profitability, bank-specific variables associated with bank capitalisation and liquidity risk seem to determine NPLs only under normal economic conditions.

Chapter 14 (Who exports high-quality manufacturing products? some empirical regularities from Greek exporting firms) by Sarantis Kalyvitis assesses the quality of Greek manufacturing exports and links the estimates to the labour structure of exporting firms. Export quality is estimated to have fallen by 1% per year on average in the period 1998-2010, but recovered in 2011 and 2012 when export quality displayed a cumulative rise of 25.7%, yielding a cumulative rise of 9.2% over the entire period 1998-2012. Linking the quality estimates at the product level with exporting firms shows that higher product quality is associated with exporters that have a higher share of their wage bill paid to skilled workers. This positive relationship stems from firms with higher skilled to unskilled employment ratios, rather than higher wage skill premia, and is more pronounced in large and rich destinations.

Chapter 15 (Spatial structure and spatial dynamics of regional incomes in Greece) by Burhan Can Karahasan and Vassilis Monastiriotis explores the theme of spatial asymmetries in Greece, a country where about half of population and more than half of GDP is concentrated around Athens, and much of the land mass is mountainous and uninhabited, while there is a whole host of disconnected islands. The Chapter offers a detailed analysis of spatial asymmetries and dynamics in Greece over the long period. The analysis finds a general picture of weak spatial associations ('spatial randomness'), underpinned by a number of disconcerting patterns: a trend of increasingly localised spatial disparities; a single-cluster formation ('hotspot') around Athens and the south Aegean islands; a significant role of space ('neighbourliness') for determining regional convergence and divergence; and, most importantly, the emergence of two antithetical trends in spatial association during the period of financialisation in the country (intensifying associations in the Athens cluster and increasing spatial randomness outside this). We claim that understanding these patterns and trends is paramount for designing appropriate policies for sustainable and spatially-equitable growth in the country in its post-crisis environment.

The volume concludes with Chapter 16 by co-editors Ioannis Bournakis and Christopher Tsoukis, titled: 'Greece's competitiveness: A survey and concluding remarks'. The chapter identifies the specialisation pattern of the Greek economy in the years prior to the crisis and analyses the various conceptual dimensions of competitiveness. Although Greece has experienced an increase in Unit Labour Costs (ULC), this could not be regarded as the only, not perhaps even the key, factor behind the accumulated current account imbalances. Greece has been gradually de-industrialising since 1980s and this process accelerated in the years after country's accession to the common currency. The post-euro era was essentially a period of massive capital inflows, which transformed Greece into a highly introvert economy. Improving competitiveness in Greece requires a different production and export paradigm, which is not embedded into the recipe of internal devaluation imposed to Greece in exchange of external bailout programmes. In an increasingly globalised environment being competitive is a far more complex process than simply reducing the cost of labour as manifested in the Competitiveness Pact (2011). It is now up to

Greece's' political and economic elite to design and implement an economic regeneration plan, an extremely challenging task given the chronic inadequacy of the political system.

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