

## A post-mortem of austerity: the Greek experience

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### ABSTRACT

*The policies of economic austerity are invoked whenever a country's public deficit is spiralling out of control. Given the intricate channels through which deficits and debt can be financed, i.e. either through borrowing or money creation, manipulation of public deficits may pose significant constraints on economic growth, social cohesion and political stability. In this context, austerity is a policy expedient that, if applied irresponsibly, might have irreversible effects on both economic and social structures. In Greece economic policies of austerity, in conjunction with internal devaluation, have been adopted in an attempt to improve competitiveness, correct external deficits and promote export-led growth. In this paper, by scrutinising a range of key economic indicators, we argue that austerity has depressed significantly the real economy in Greece, threatening further an already crippled economic environment with a danger of further stagnation. We also provide econometric evidence for the period 2000 - 2013 which shows that the positive contribution of net exports to economic growth in Greece has been as a result of relatively low domestic demand, not to relative gains in the international price competitiveness of Greek enterprises. Finally, it is envisaged that the lack of adequate endogenous capacity as a means of galvanising economic growth has the potential to usher in prolonged periods of economic depression.*

### 1. INTRODUCTION

**P**OLICIES OF ECONOMIC AUSTERITY are invoked whenever a country's public deficit is spiralling out of control. In order to minimise the potential for debt to spiral out of control in such circumstances, policymakers have tended to reduce public expenditure and increase taxes swiftly. Given the intricate channels through which deficits can be financed, i.e. either through borrowing or money creation, unprecedented reduction of public deficits may pose significant constraints on economic growth, social cohesion and political

stability. In this context, austerity is undoubtedly a policy expedient that, if applied irresponsibly, could have irreversible and damaging effects on both economic and social structures resulting in hysteresis, i.e. prolonged periods of high unemployment which tend to increase the rate of unemployment above the rate associated with non-accelerating inflation.

Austerity has historically been associated closely with polices in the context of national emergencies, such as wars and national defence. Over time, however, capitalism has evolved into an economic system in which governments, largely as a result of the adoption of widespread social welfare provisions, have started experiencing pressures resulting from debt accumulation. During economic slumps, the publicly-funded welfare state is likely to come under pressure, in so far as cutting provision to voters would be something that no government could consider lightly, because of the ensuing negative political implications.

Apart from their association with economic downturns, austerity policies have not only been regarded as an economic necessity but also as a moral obligation (Krugman 2015; Alexiou and Nellis 2013). Recently, politicians have resorted to a narrative that is permeated with slogans such as ‘we have lived beyond our means for too long’ or ‘it is now the time for frugality and restraint’.

In the wake of the 2007 global financial crisis, a heated debate started to unfold in relation to the additional public debt associated with the bail-out of financial institutions. In the European Union, democratically-elected governments have been replaced by technocrats — often former Goldman Sachs and ECB bankers — endowed with powers to implement unconditionally extreme policies of austerity.

Keynes (1936) noted that financial markets are subject to irrational swings — between rampant optimism and overwhelming pessimism. Assuming that austerity fails then, in all likelihood, financial markets will consider governments to be incompetent in terms of managing their deficits. So, the fundamental question that we raise is: *what is the purpose of austerity?* Blyth (2013 p 73) argues that what has happened since the onset of the financial crisis in 2007 is ‘the greatest bait and switch in modern history’.

The primary objective of this study is to assess the efficacy of austerity policies that have been implemented in Greece since the onset of the economic crisis. In addition, we challenge the contention that the observed improvement in Greece's current account deficit has been the result of competitiveness that internal devaluation has promoted. To this end we employ simulations, on the basis of which we provide evidence on the extent to which changes in demand and the real effective exchange rate affect the external balance.

The rest of the paper is organised as follows: Section 2 touches on the theoretical underpinnings of austerity whilst Section 3 provides an assessment of the impact of austerity by examining the behaviour of key Greek economic indicators. In addition, the empirical investigation yields evidence on

the extent to which the current economic framework is capable of triggering an export-led growth recovery through improved competitiveness. Section 4 highlights on the implications of austerity and proposes alternative policies whilst Section 5 provides some concluding remarks.

## 2. AUSTERITY: THEORETICAL CONSIDERATIONS

The fundamental theoretical argument for austerity is underpinned by mainstream, neoclassical economics. In so far as public expenditure crowds out investment (given a perfectly inelastic long-run aggregate supply at full employment), and the belief that markets are more efficient than the state, the only way economic growth can be promoted would be through reductions in public sector deficits financed by raising taxes or cutting public expenditure. Given that higher taxes and higher government expenditure are both envisaged to stifle market efficiency, then the preferred solution is reduced expenditure, i.e. austerity.

Ricardo and Smith were amongst the first to engage in a public debate on the controversy surrounding budget deficits and public debt. For Smith (1957), even though public borrowing was inevitable, as war expenditure could not possibly be financed solely through taxation, the burden of public debt had to be scrutinised carefully. In view of the burgeoning deficit that Britain had incurred during the Napoleonic wars, Ricardo (1951) developed a keen interest in public debt and, more importantly, in the distinction between tax financing and borrowing. The real revolution in macroeconomics, however, was sparked by Keynes in 1936, when he introduced the controversial notion of deficit spending as a means of boosting income and employment — a notion that, presently, is even more topical than ever. More specifically, Keynes (1936) recommended that when an economy is in recession, an unbalanced rather than a balanced public budget is needed in order to spend the way out of recession. The Keynesian message in support of deficit spending when in a recession was largely ignored by policymakers in the early 1930s, but was embraced enthusiastically by the G-20 governments in 2009 as a means of preventing another global recession.

The current neoliberal economic dogma considers discretionary fiscal policy largely to be ineffective as a tool of stabilisation policy (Arestis 2007, 2009). In other words, the fiscal stance has no impact on aggregate demand, suggesting that the traditional Keynesian multiplier effect is close to zero or even negative in some cases. Such a proposition draws its legitimacy from the empirical evidence based on the so-called ‘crowding-out effect’, as well as the theoretical underpinnings of Ricardian Equivalence, as revamped by Barro (1974).

It is well-documented that the Greek debt crisis was the precursor of the widespread fiscal austerity measures that have dominated European policy since (Krugman 2015; Alexiou and Nellis 2013).<sup>3</sup> In many advanced countries the increases in public debt can to some extent be ascribed to govern-

ments' policies to deal with the high private debt accumulated during the years preceding the financial crisis (De Grauwe 2010).

In the aftermath of the financial crisis, a number of European countries with burgeoning budget deficits and national debts imposed upon themselves austerity policies as a means of consolidating their public finances. What is striking, however, is that even some of the stronger economies such as France, Germany and the UK opted for measures of fiscal austerity as well. In addition, to ameliorate any future crises the European Stability Mechanism (ESM) was introduced by the European Commission in an effort to address and resolve effectively the crises associated with the indebtedness of some eurozone countries. The ESM, through issuing debt instruments, provides loans and other forms of financial assistance to eurozone economies.

The official 'green light' for policies of fiscal consolidation came in 2010 at a meeting in Toronto where the G-20 countries endorsed a strategic plan for the advanced economies, on the basis of which deficits were to be halved by 2013 and debt-to-GDP ratios stabilised by 2016 (Kitromilides 2011). In the United States, the then chairman of the Federal Reserve Bank, Ben Bernanke, in a speech addressing the National Commission on Fiscal Responsibility and Reform, firmly posited that a deficit reduction plan was urgently needed in order for the US government to maintain its credibility in financial markets (Bernanke 2010). In the same vein, the Congressional Budget Office (2010) insisted that restoring market credibility was predicated on much tougher measures being taken promptly. Flynn also advocated the immediate introduction of austerity measures by arguing that the European debt crisis is 'a cautionary tale and that it is always best to take action to shore up budget deficits before market forces demand it' (Flynn, 2010 p 20). A similar rationale has also driven the conceptualisation of UK policy-making as a programme of rapid deficit reduction, mainly through deep public expenditure cuts, agreed and announced by the then coalition government partners in May 2010.

International organisations such as the OECD, the Basel-based Bank for International Settlements (BIS), as well as influential voices such as the Chicago-based economist Raghuram Rajan and Pimco's Bill Gross, also demanded that monetary and fiscal tightening should be pursued to fight depression (Krugman 2012).

Reinhart and Rogoff (2010) produced a much-quoted paper on economic growth in a time of debt, which gave credence to the adoption of the austerity measures which followed. Specifically, the paper claimed that economic growth dwindles when the government debt-to-GDP ratio rises above 90 per cent, thus providing ammunition for many politicians to defend their austerity policies. A case in point is the time when the UK's Chancellor of the Exchequer, George Osborne, was invited to give an annual *Mais Lecture* in February 2010. Osborne (2010) stated categorically:

as Mr Rogoff puts it, *there is no question* that the most significant vulnerabilities that emerge from a recession is the soaring government debt. It is very likely that this will trigger the next crisis as the government's finances are stretched so wide. The latest research suggests that if the government debt-to-GDP ratio rises above 90 per cent then the negative effect on long term growth becomes highly significant.

However, the evidence provided by Reinhart and Rogoff was swiftly challenged (see Herndon *et al* 2013). According to Skidelsky (2013), Reinhart and Rogoff failed to explain the transmission mechanism between high debt and lower economic growth, placing too much credibility on what was merely a statistical correlation. The implicit theory states that excessive state spending crowds out productive private sector investment spending. But this could also apply to tax-financed spending compared with debt-financed spending. So what makes the debt-to-GDP ratio the variable with the utmost importance? Ostensibly, what the authors had in mind was the reluctance of individuals to lend money to the government in the event of excessive debt levels. A high debt-to-GDP ratio makes the markets uneasy as they start to factor in the risk of default, driving up the term structure of interest rates, which in turn hampers economic growth.

It would be utterly fallacious to assume that a country such as the UK, with a central bank which has the authority to issue its own currency (if and when deemed necessary), should be treated as one which relies on the sentiment of bond holders particularly foreign bond holders. It is in this sense that we can argue that the UK was possibly one of the few countries that did have a choice between austerity and stimulus (a choice that was not open to Greece in the absence of quantitative easing by the ECB<sup>4</sup>). Stimulating the economy through an expansionary fiscal policy can be expected to boost national incomes, lower the debt-to-GDP ratio and drive down the market value of new bonds.

More critically, Nersisyan and Wray (2010) argue that Reinhart and Rogoff failed to draw an explicit distinction in their dataset between 'sovereign' and 'non-sovereign' countries. Sovereign countries have the freedom to purchase government bonds infinitely as well as the freedom to devalue their currencies. The implication of such a distinction is of vital importance as sovereign countries — countries with their own floating-rate currency - face different debt constraints from non-sovereign countries — countries without their own currency or who participate in fixed-exchange rate systems, hence rendering Reinhart and Rogoff's estimates invalid. In addition, Nersisyan and Wray (2010) maintain that in the case of sovereign countries, low growth may cause public deficits to increase, rather than the other way round as suggested by Reinhart and Rogoff.

The premise upon which the conventional wisdom of fiscal consolidation is based, relates to both real aggregate demand in the short-run and the role of expectations in the long-run. Hellwig and Neumann (1987) suggest that

the direct effect on aggregate demand will be negative, but that the indirect effect will be positive as expectations improve provided that the consolidation programme is credible. In passing, it should be noted that Hellwig and Neuman do not state explicitly that fiscal austerity will boost the economy through stimulating aggregate demand. Giavazzi and Pagano (1990), in a seminal paper on the effects of fiscal contraction in the Danish and Irish economies, found that in the case of Denmark, even in the presence of increased taxes, cuts in government spending can have a positive impact on consumption. The Irish experience, however, highlights the potential importance of liquidity constraints for the operation of this mechanism. The potential expansionary effects are primarily ascribed to the impact of the monetary disinflation on nominal interest rates which, through the corresponding drop in real rates, stimulates aggregate demand.

In the same vein, Alesina and Ardagna (2009 p 15) argue that ‘fiscal adjustments, even large ones, which reduce budget deficits, can be successful in reducing relatively quickly debt over GDP ratios without causing recessions. Fiscal adjustments based upon spending cuts are those with, by far, the highest chance of success. Politicians are typically reluctant and often delay the adoption of restrictive fiscal policies making the adjustment even more costly’. In view of the above, Alesina, in April 2010 in Madrid, assured European finance ministers that large credible and decisive cuts to reduce public deficits would be accompanied and immediately followed by sustained growth, rather than recessions even in the very short run (Alesina, 2010).

Romer (2011 p 17), on the one hand, acknowledges that Alesina’s paper became ‘very influential’, but on the other hand posits that ‘... even more striking is the number who assert forcefully that fiscal austerity — getting the budget down immediately — would be good for unemployment and growth’.

In another study, Taylor and Jordà (2013) find that austerity measures in the UK are to be held responsible for reducing GDP growth by 1 per cent each year. In fact, they argue that in recession, austerity prolongs the pain much more so than in the boom. It is in this sense that the outcome of austerity is even worse if you consider the loss of capacity, exacerbated by the hysteresis effect, to produce output.

Jean-Claude Trichet, the former President of the European Central Bank, in an interview in the Italian newspaper *La Repubblica* in June 2010, stated emphatically:

Everything that helps to increase the confidence of households, firms and investors in the sustainability of public finances is good for the consolidation of growth and job creation. I firmly believe that in the current circumstances confidence-inspiring policies will foster and not hamper economic recovery, because confidence is the key factor today. (Trichet 2010 p 1).

However, such optimism is unwarranted given that severe austerity destroys confidence. While it has been necessary to drive down and maintain short-

term interest rates at historically low levels since the start of the financial crisis, this policy has proved to be ineffective in stimulating recovery. Krugman (2012 p 1) argues that 'as for the effects via expected future taxes, how many people do you know who decide how much they can afford to spend this year by trying to estimate what current fiscal decisions will mean for their taxes five or ten years in the future?'

In 1943 Michal Kalecki wrote an influential essay on the importance to business leaders of the appeal to confidence. He pointed out that as we veer off the road to full employment, governments are held to ransom by business lobbies. These business lobbies in effect have the power of veto over government actions, thus dictating policy in a way that suits them. If monetary and fiscal policies are deployed effectively to fight unemployment, then business confidence suddenly becomes redundant and most importantly the need to cater to the whims of capitalists is much reduced.

It is in this sense that the proponents of austerity argue for a fiscal policy that focuses on deficits rather than on employment creation, and for a monetary policy that bears down heavily on inflation and raises interest rates, even in the face of mass unemployment.

### 3. LESSONS FROM AUSTERITY: THE GREEK EXPERIENCE

Given its economic and financial situation, Greece resorted to asking for financial assistance from the international institutions in May 2010. The resulting financial package offered by the European Commission, European Central Bank and International Monetary Fund (commonly referred to as 'the troika') was put on the table together with the first Memorandum of Understanding. In passing, it should be mentioned that the role of the troika is to monitor countries in severe economic trouble that are receiving financial loans provided by the European Union and the International Monetary Fund. For the sake of this analysis it is appropriate that we succinctly stipulate the strategic phases that the troika has imposed upon the Greek government.

*Phase I: Public deficit and debt levels have to be rapidly reduced through cuts in public sector pay and pensions along with significant reductions in public and social spending.<sup>5</sup>*

*Phase II: The competitive position of Greece has to improve significantly through the adoption of internal devaluation policies.*

*Phase III: The government should speed up the process of large scale privatisations as well as pursue further reductions in the salaries of civil servants.*

The rationale of these policy directives rests on the notion that economic recovery will only be achieved through improvements in the competitive position of the country that will follow the implementation of austerity measures such as significant reductions in the minimum wage, entitlements and pensions, the weakening and restructuring of existing labour laws, a reduction in

the power of trade unions, the invalidation of collective bargaining agreements, the promotion of labour market flexibility, and so on (European Commission 2012).

Since 2010 the implementation of the adjustment programme is the most punitive austerity programme that Greek society has had to endure since World War II. The price to be paid was and still remains extremely high: *rapid reduction in national income and living standards, historically high unemployment, social dislocation, degradation of the natural environment and public infrastructure, dramatic exacerbation of poverty, cultural underdevelopment, disinvestment and shrinking capacity, massive privatisations and unprecedented redistribution of income* (Greek Labour Institute 2014; Alexiou and Nellis 2013).

These austerity policies have been deemed to be successful - by both the Greek government and the troika — in so far as they have delivered stable inflation, an external trade surplus in goods and services and a balanced government budget. According to the Greek government at the time, austerity was the only effective policy option that Greece had at its disposal when the crisis erupted. But this was clearly not the case — Greece faced an insolvency crisis, not merely a liquidity crisis. In addition, the ECB chose not to carry out unconditional purchases of Greek bonds on the secondary markets (as practiced in Japan, UK and the US). It was, therefore, a mistake by both the Greek government and the troika to assume that a solvency crisis of debt could be cured with a set of austerity policies. What was and is still needed is a debt relief or debt restructuring programme.

What is worrying, however, is that even after the sacrifices that have been made stemming from the unprecedented measures imposed on the Greek people, there are no visible signs of a sustainable long-term recovery. Many questions are yet to be addressed adequately, the most critical of which can be summarised as follows:

- Assuming that Greece has reached the end of this recession, will the economy start moving up the recovery path and if so will recovery be rapid or slow?
- What will be the driving factors for such a recovery?

The primary objective of internal devaluation has been to galvanise exports, by making Greek products more competitive in the international markets for goods and services (Alexiou and Nellis 2013). However, instead of delivering economic growth, austerity measures have proven to be rather ineffectual and responsible for decimating the existing productive capacity of the economy. The so-called 'success story' — i.e. the achievement of a balanced budget much advertised by the Greek government — has been achieved at the expense of the real economy. So the salient question is concerned with whether or not the Greek economy is able to generate endogenously the necessary conditions for sustainable growth. If not, then what would be the exogenous factors that can trigger economic recovery?



There is no doubt that, for an economy in distress such as Greece, achieving higher levels of GDP (and thus lower unemployment) and a recovery in its domestic demand without a deficit in its external trade balance would require lower prices of domestic products (i.e. increased price competitiveness) to offset the leakage effects of imports. However, this is unlikely given that Greece has a chronically low export/GDP ratio relative to its import penetration.

Prices in Greece have exhibited significant rigidity, as the unprecedented reduction in unit labour costs have not been passed on to prices per se. In particular, during the first four years of internal devaluation, prices failed to decline, even after taking into account the effect of indirect taxation (for more details see Greek Labour Institute, 2014). Consequently, the reductions in unit labour costs, instead of being converted into price reductions and increased competitiveness as predicted by the theory of internal devaluation, have caused average profit margins to increase significantly (Alexiou and Nellis 2013). The failure to deliver lower prices could, to a great extent, be attributed to a number of factors such as: the oligopolistic structures permeating the Greek economy; the on-going disinvestment of fixed capital; liquidity problems; and potentially the reluctance of the then government to deregulate goods markets effectively prior to labour market reforms. As Barber (2014 p 1) puts it, it is down to the government's 'desire and capacity to continue the arduous modernisation effort begun in 2010 — or whether it will maintain old structures of clientelism, corruption and oligarchy under a façade of obedience to foreign overlords'.

In addition industrial policy, which is instrumental in improving structural competitiveness, is conspicuous by its absence. Structural competitiveness is critical for long-term growth and any policies designed to stimulate growth will be compromised if structural competitiveness is not established. However, the impact of such factors can only be temporary in nature, in the sense that these alone cannot support a substantial and long-term sustainable growth pattern in exports. Notwithstanding this, they may trigger a growth stimulus, provided that a new regime of capital accumulation endowed with self-sustaining capabilities is in place. The pre-crisis neoliberal policies that were based on borrowing and indebtedness, speculation in financial markets and construction activity, have failed dismally. An alternative framework that will drive the Greek economy out of the recessionary quicksand is desperately needed.<sup>6</sup>

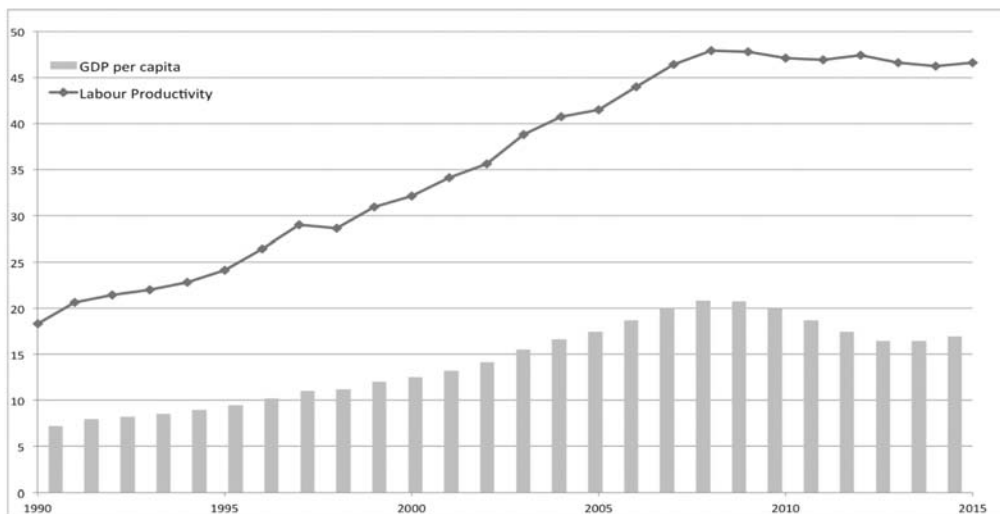
The current bailout framework which was agreed in July 2015 — after six months of hard negotiations between the left-wing government of SYRIZA and the creditors — is even stricter in nature, hence rendering the new programme unattainable in the long run (Mazzucato, 2015). According to Roberts (2015 p 1) the 'Greek parliament has submitted to the troika "fiscal waterboarding" and agreed to the terms of a new "bailout" programme that will tie the Greek economy to the rule of the euro institutions and the IMF for at least three years.....and will mean that the majority of Greeks will have austerity and reduced living standards imposed for the foreseeable future'.

The terms of the newly-established agreement that have been imposed on the Greek government by the troika are based on the following conditions: deregulated labour markets and low wages; high profitability; low taxes on businesses and income from property; higher taxation of employees and pensioners; productive investment which increases profit; public expenditure cuts; social degradation; reduction in state subsidies, pension funds, health, education and welfare; an increase in the average size of firms through mergers and acquisitions; the centralisation of production and trade in fewer and larger enterprises; the development of high-income tourism, and the privatisation of major public utilities.

### 3.1. Experience since austerity (2008-2015)

As Figure 1 illustrates, austerity policies have coincided with a sharp downturn in the Greek economy and a deterioration in the living standards of the Greek population. At the time of writing, it is estimated that GDP per capita at constant prices has declined by more than 23 per cent over the period since 2008, resulting in a sharp decline in the purchasing power of individuals. In addition, labour productivity has fallen, indicating that the burden of adjustment has largely been absorbed by significant adjustments in the labour markets, raising unemployment by 20 percentage points (European Commission 2014).<sup>7</sup>

Figure 1. Labour Productivity and GDP per capita (€000's, 2005 prices)



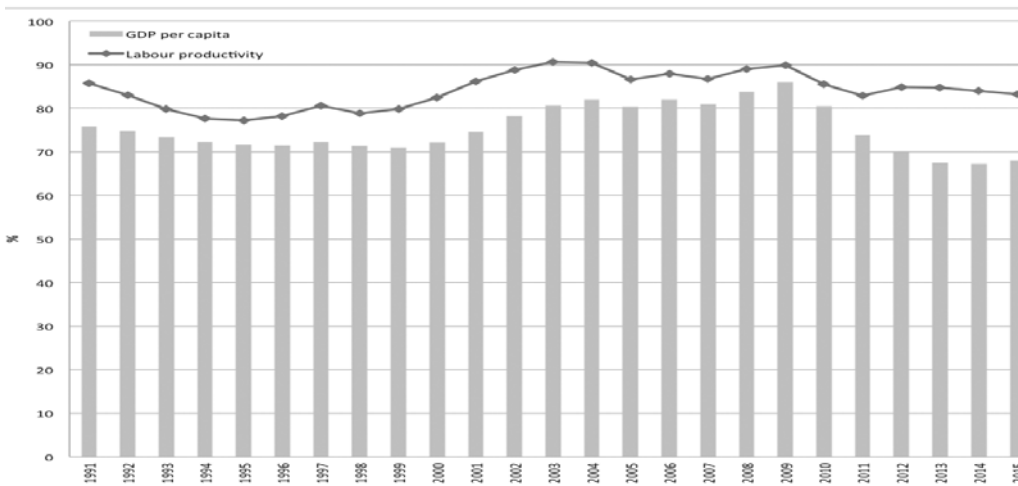
Source: *Annual Macroeconomic Database*, European Commission

An additional development that will have significant implications for the structure of the labour market relates to the deregulation, as well as the weakening, of collective bargaining. Such a prospect will lead to a deterioration in the bargaining position of workers, a reduction in nominal and real wages in the private sector, and a consequent reduction in private consumption. Shrinking demand can be expected to lead to further reductions in production, further increases in unemployment resulting in a vicious circle of self-sustained recession, dwindling demand and unemployment and reduced wages (Alexiou 2010; Arestis and Sawyer 2005; Alexiou and Nellis 2013).

The contractionary effects of continued austerity have taken their toll on domestic demand and, through this, on public and private sector investment. Consequently, households' pessimistic expectations about the economy have inevitably affected consumption expenditure and have dramatically reduced spending on assets and durables. The strict lending criteria imposed by banks have also contributed to the downturn in economic activity.

In the years prior to the economic crisis GDP per capita in Greece, in terms of purchasing power, was approaching that of the average of the 15 most advanced countries in the European Union. In the period 2009-2013, however, the position of Greece relative to the EU-15 has fallen dramatically - to that last reported in 1964 (Greek Labour Institute 2014, European Commission 2014).

Figure 2. GDP per capita and labour productivity as a % of EU-15(in PPP).



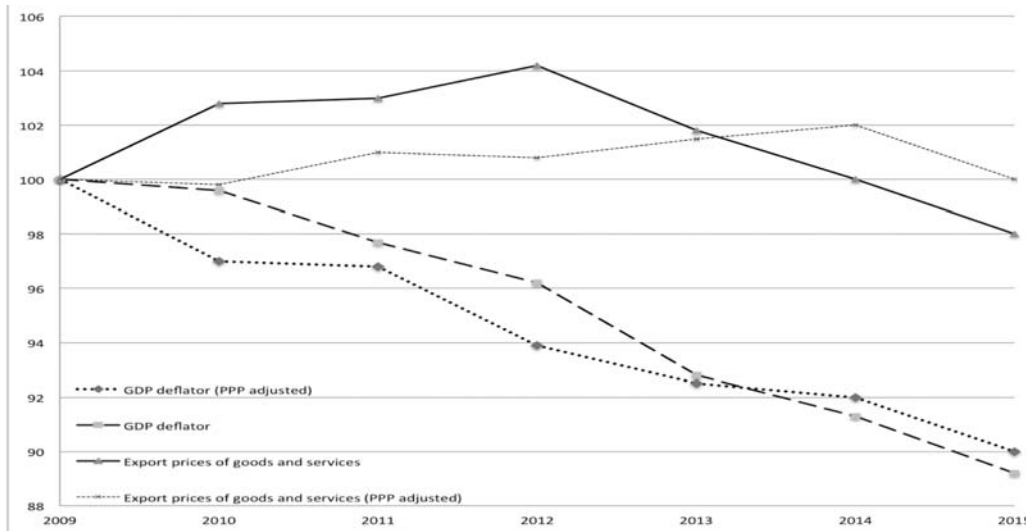
Source: *Annual Macroeconomic Database*, European Commission

As shown in Figure 2, over the period 1995 to 2008, GDP per capita was on an ascending path, driven mainly by gains in labour productivity. The decline that followed over the years 2009-2013, however, is ascribed to the fall in relative productivity caused by the dwindling capacity utilisation resulting from deficient demand. Average productivity in Greece in 2009 amounted to 90 per cent of the EU-15 average but the same indicator dropped to approximately 82 per cent by 2013/2014. On the basis of the latter, it is reasonable to suggest that the 20 per cent decrease in real convergence with the rest of the EU-15 is due to dwindling productivity (6 per cent) as well as declining employment (14 per cent) (Greek Labour Institute 2014). In other words, the standard of living in Greece compared to those of the average of the EU-15 has declined considerably, mainly because of rising unemployment and faltering productivity growth.

The European Commission (2014) anticipated that the deflationary spiral would come to an end in 2015. This prediction has proved to be correct, with inflation stabilising at around 0 per cent since the middle of that year. In view of this, it is estimated that the price adjustment to the new lower level of output has amounted to about -3 per cent, whilst the overall decline in unit labour costs for the entire period of adjustment has exceeded 16 per cent (this is line with the prediction of the Greek Labour Institute, 2014). In other words, the reduction in unit labour costs only translates to approximately one-fifth of the reduction in domestic prices. Such a development stands in stark contrast to the theory of internal devaluation, which states that reductions in labour costs will automatically be translated into price reductions and improved competitiveness.

Figure 3 maps out the path of the GDP deflator and the export prices of goods and services, as well as changes in the GDP deflator in relation to 37 of the most advanced countries, over the period 2009 to 2015. During the period 2009-2013, prices in Greece, compared to those in 37 developed countries, declined by 7.2 per cent; and by 7.7 per cent when adjusted for exchange rate effects. This reduction has been the result of a decline in domestic prices as well as an increase in the price level of competitor countries. From the above it follows that these reductions did not translate into reductions in export prices of goods and services. As Figure 3 illustrates, the export prices of goods and services have grown at least as much as prices in competing countries; and only over the years 2014 and 2015 are they projected to exhibit a slight decrease. In other words, export-oriented firms appear to be aligning their prices in accordance with competitor firms rather than with unit labour costs. This may reflect the fact that Greece (like other small countries) is a price taker in world markets, as well as expectations of relatively price inelastic demand for exports on the part of Greek exporters.

Figure 3. Price deflator and Export prices of goods and services relative to a group of 37 advanced countries (2009=100)



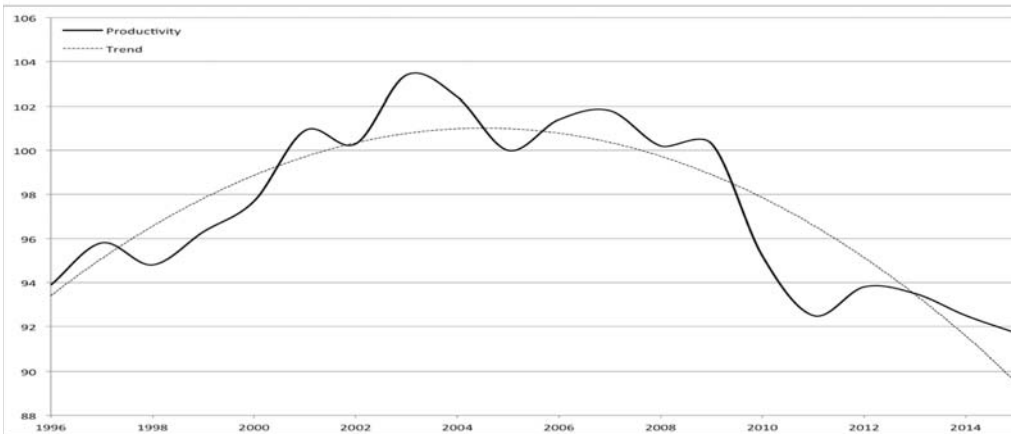
Source: *Annual Macroeconomic Database*, European Commission

Figure 4 shows that Greek productivity — compared to the corresponding weighted average of the 37 most developed economies — reached its highest level in 2003 and has reversed dramatically ever since. Arguably, apart from the crippling effects of the financial crisis, such a performance is also associated with the pre-crisis years when economic growth was mainly the by-product of expansion of production of low capital intensity. The cumulative effect over the period 2008-2013 is a decline in labour productivity of more than 9 per cent.

It is our contention that the primary causes of such a reduction in productivity are dwindling demand, shrinking capacity utilisation and the frail investment environment, given that new equipment and new technological methods in production have been conspicuous by their absence. Investment in machinery, equipment and capital assets has decreased substantially throughout the entire period (see Figure 5 below).

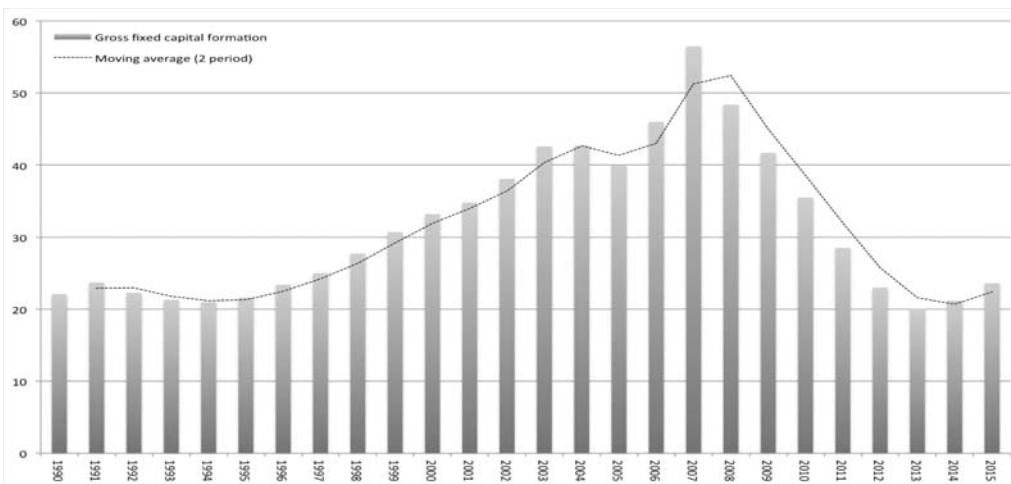
As Figure 5 illustrates, gross fixed capital formation (GFCF) at constant prices has declined markedly since 2008. However, according to the European Commission's projections, GFCF is expected to recover in the near term. But even if such projections are correct, it should be stressed that GFCF will only have reverted to its 1994 levels. In other words, 20 years of investment in the Greek economy will have been lost as a direct consequence of the financial crisis, with severe consequences for long-term growth prospects and living standards.

Figure 4. Productivity relative to 37 advanced economies (2005=100)



Source: *Annual Macroeconomic Database*, European Commission

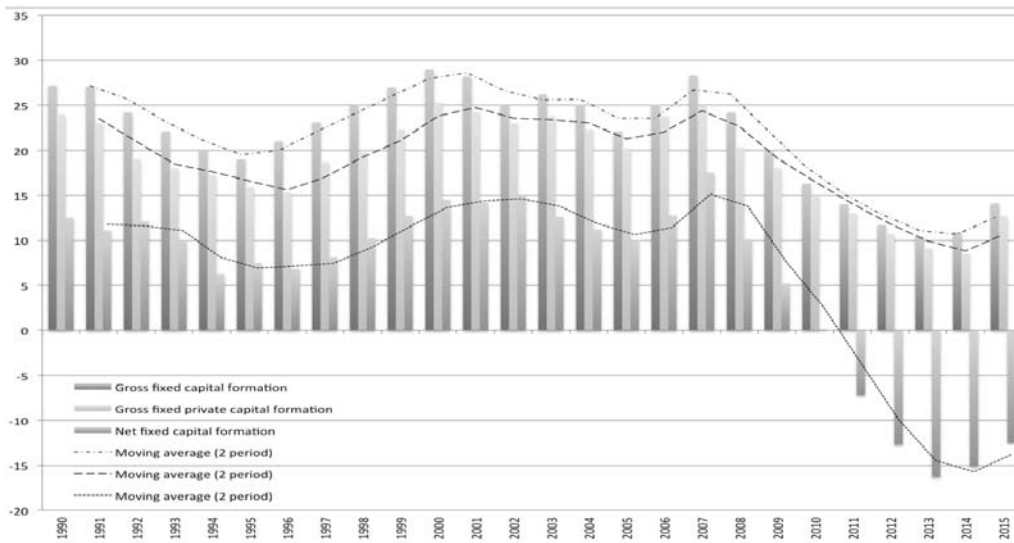
Figure 5. Gross fixed capital formation (billions of €; constant prices, 2005)



Source: *Annual Macroeconomic Database*, European Commission

It is also worth noting that the owners of Greek businesses report the highest share of national income in the OECD. In particular, in 2013 (in nominal terms) the profit share of Greek firms as a percentage of GDP was 56 per cent. Given the uncertain and volatile economic environment, many domestic

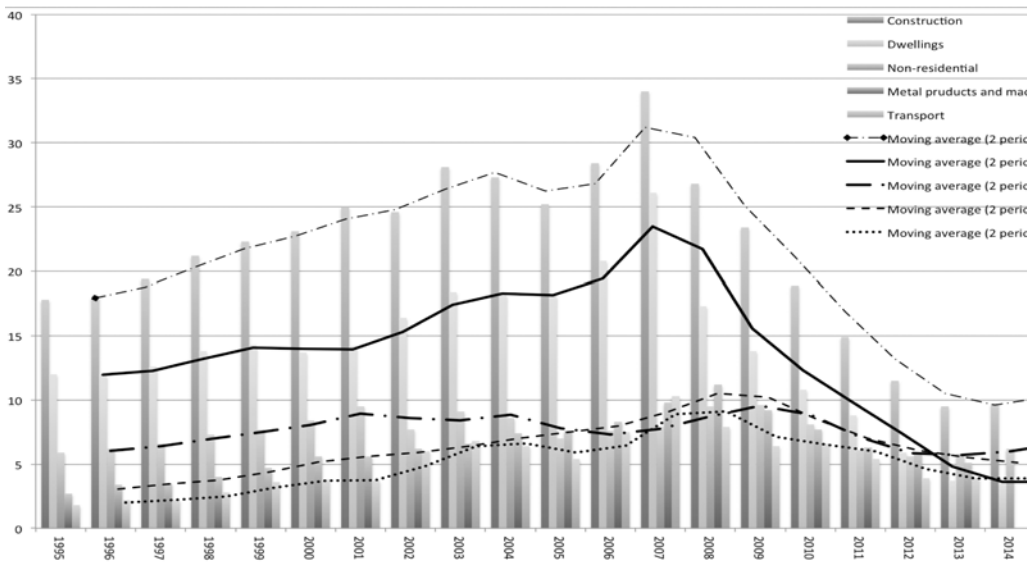
Figure 6. Total and private fixed capital formation as a % of GDP.



Source: *Annual Macroeconomic Database*, European Commission

private investors are either reluctant to engage in further investment or have simply moved their profits out of Greece. As a result, Greece currently has the lowest rate of investment as a proportion of GDP in the whole of the OECD.

Figure 7. Investment in construction, dwellings, metal products and machinery, and transport (billions of €, at constant prices, 2005)

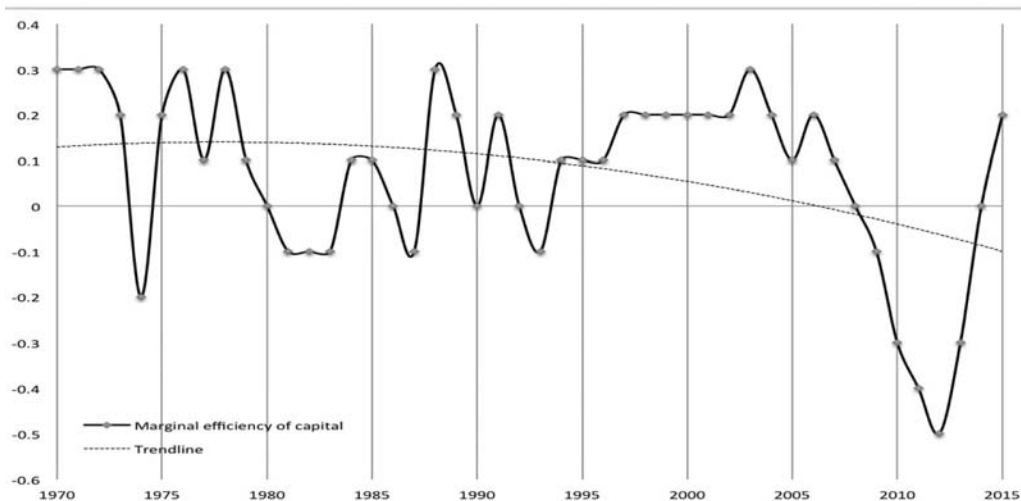


Source: *Annual Macroeconomic Database*, European Commission

Figure 6 maps out private, gross and net fixed capital formation. All three indicators follow parallel trends throughout the period. In the wake of a crisis, however, falls in gross investment expenditure are inevitable. But the collapse in net investment shown in the figure is particularly worrying. The picture of the Greek economy that emerges indicates that the economy has already entered a process of disinvestment. Figure 7 suggests that the collapse in investment during the more painful years of the crisis (i.e. 2009-2013) is to a large extent attributed to the concomitant collapse of investment in the housing industry and, to a lesser extent, to the decline in investment in other sectors (such as metal, non-residential construction or transport).

As shown in Figure 8 below, the marginal efficiency of capital has declined sharply for five consecutive years (2008-2012), in particular given the poor capacity utilisation and lack of technological innovation and progress. According to the European Commission, however, in so far as the current adjustment programme succeeds in boosting investment activity in innovative sectors of the economy, the marginal efficiency of capital is expected to improve substantially in the coming years.

Figure 8. Marginal efficiency of capital

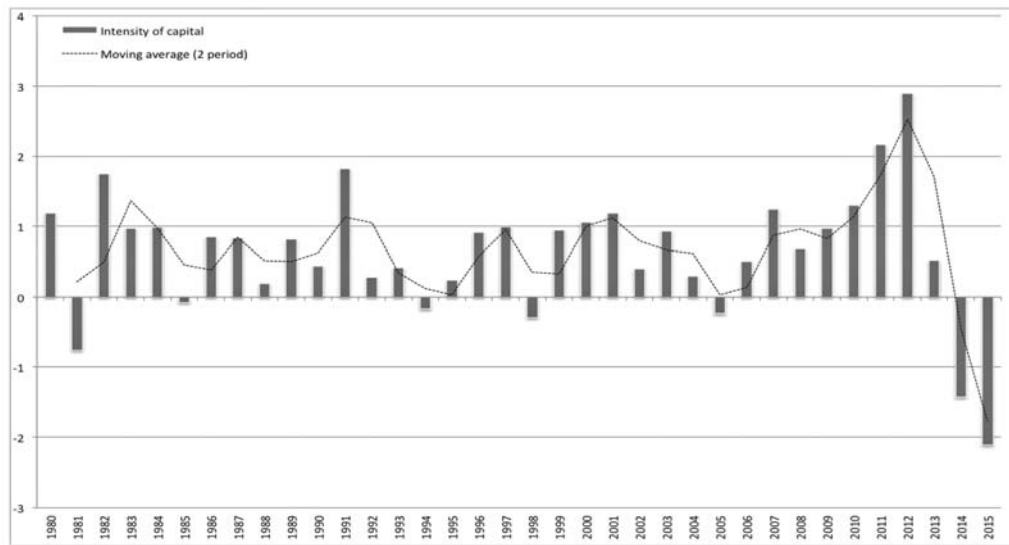


Source: *Annual Macroeconomic Database*, European Commission

Figure 9 provides further insight into the rate of change of the capital stock. As we can see, by the end of the first three years of implementation of the austerity programme, capital was growing at a steady pace. Such a development is primarily attributable to the fact that unemployment was growing much faster than the corresponding erosion in the capital stock.



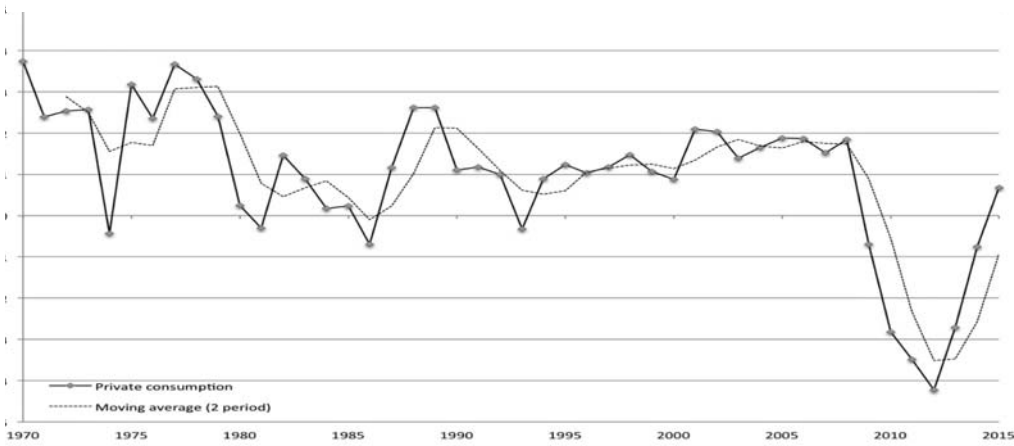
Figure 9. Intensity of capital (% changes, constant prices: 2005)



Source: *Annual Macroeconomic Database*, European Commission

Private consumption (see Figure 10 below) has declined considerably over the recessionary period and is projected to reach levels last reported in 1999 by the end of 2015. This reduction in consumption expenditure is regarded as one of the most significant effects of the austerity measures, given that private consumption has been the most important contributory component of GDP.

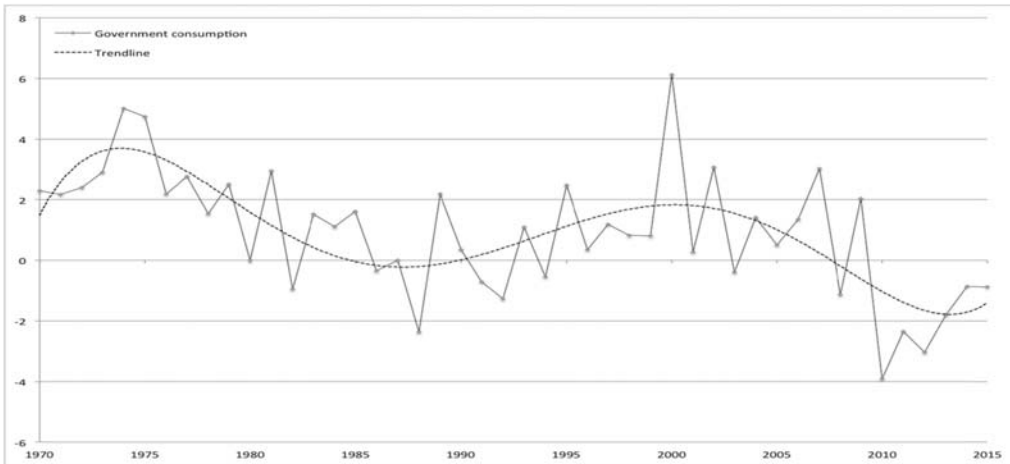
Figure 10. Private consumption (% changes, constant prices: 2005)



Source: *Annual Macroeconomic Database*, European Commission

Figure 11 reflects the efforts of the Greek government to adhere strictly to the budget deficit reduction rules implied by the fiscal consolidation policy. The resulting effect has been an unprecedented decline in public consumption — and by 2015, according to European Commission (2014) projections — public consumption will have reached levels last reported in 2000.

Figure 11. Government consumption (% changes, constant prices: 2005).



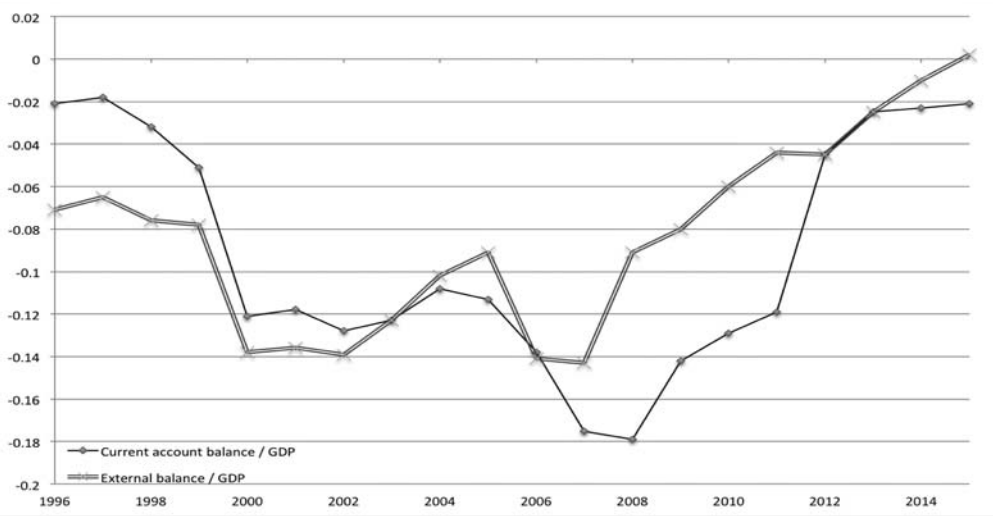
Source: *Annual Macroeconomic Database*, European Commission

The sharp fall in imports precipitated by the dramatic decline in demand for consumption and investment goods has improved the trade balance of goods and services as a percentage of GDP; but the hoped-for export-led growth has proved elusive. There is little evidence to suggest that exports of goods and services will drive the economy out of stagnation. In 2014 the European Commission published an indicator of export performance - equivalent to the share of exports of goods and services of the destination markets - on the basis of which export performance deteriorated significantly during the years of the crisis. Having said that, the external balance as well as the ratio of exports to imports has recovered significantly as the demand for imports has fallen in line with GDP, while internal devaluation has improved to some extent the competitiveness of exports (see Figures 12 and 13). Overall, the Greek adjustment programme that relies mainly on reductions in unit labour costs to boost competitiveness and transform the Greek economy, has failed to deliver the hoped-for benefits.

Figure 14 illustrates the effect of the austerity policies on unemployment and economic growth. The rise in unemployment overall, over the period 2008-2013, was approximately 20 percentage points, whilst GDP shrank by nearly a quarter (European Commission 2014). Ostensibly, the main bur-

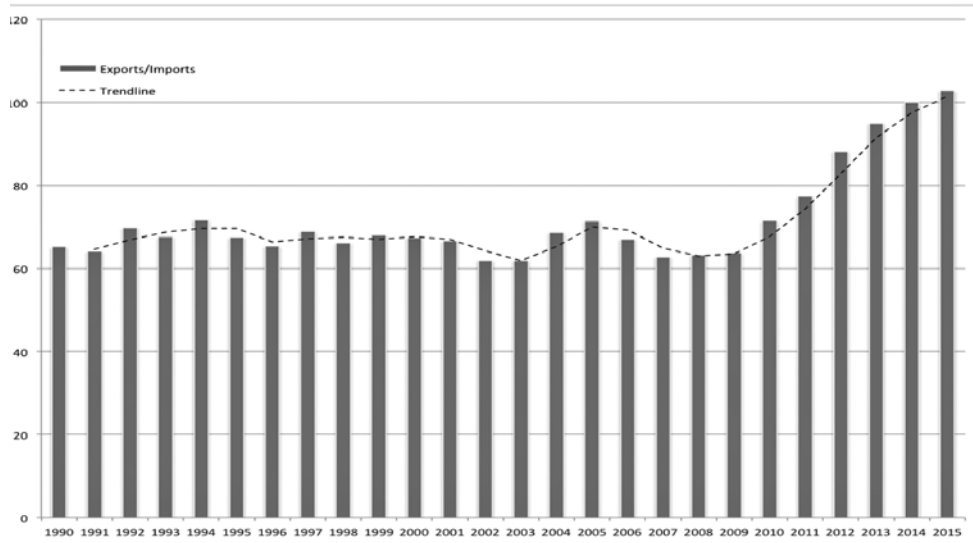
den of adjustment has been borne by workers, as evidenced by the sharp increase in the unemployment rate (reaching 27.3 per cent in 2013).

Figure 12. Current account balance and External balance.



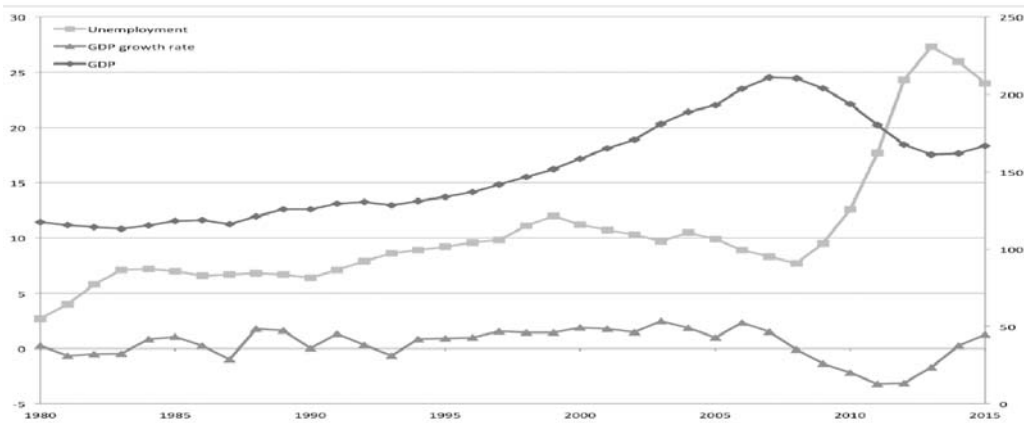
Source: Annual Macroeconomic Database, European Commission

Figure 13. Ratio of Exports to Imports



Source: Annual Macroeconomic Database, European Commission

Figure 14. Gross domestic product (at constant prices) and Unemployment rate



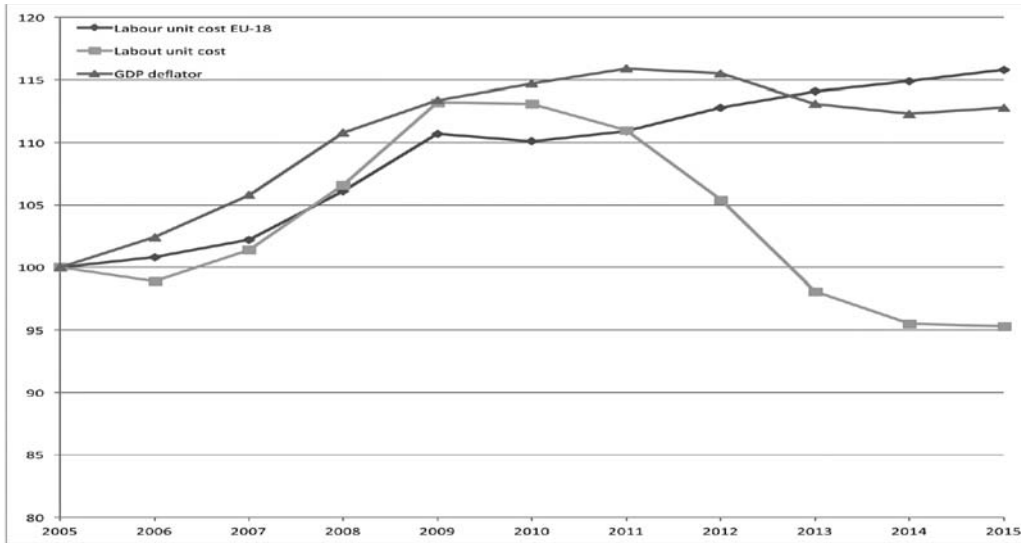
Source: *Annual Macroeconomic Database*, European Commission

According to internal devaluation theory, firms should react to the reduction in unit labour costs by lowering their prices and maintaining or reducing their profit margins, given that the high levels of unutilised productive capacity will have weakened their power in product markets and their ability to raise prices. Instead, firms should seek to raise the volume of sales and hence increase their profits through price reductions. The latter will ensure that the consumer price index will adjust in accordance with the private consumption of domestic goods. *Ceteris paribus*, real wages should increase, making room for further reductions in nominal wages and labour costs, thus improving the competitive position of the country.

In other words, demand for exports should increase whilst imports should dwindle mainly as a result of anaemic domestic demand and increased price competitiveness. Net exports should therefore improve considerably, with positive spillover effects on employment and GDP growth. It is expected that in the absence of any external shocks, this process of interaction between foreign trade and the wage/price spiral, in combination with the structural reforms demanded by the troika, should ensure that the system achieves long-run equilibrium.

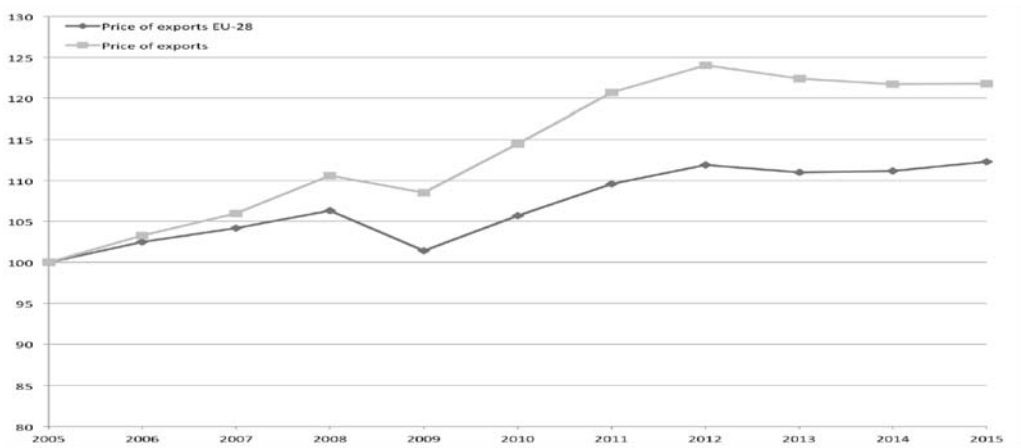
A different approach to internal devaluation is offered by alternative and heterodox economists who attempt to shed light on the concept of competitiveness by emphasising the importance of non-price structural supply-side factors such as strengthening the capacity of the economy, the accumulation of productive capital, the improvement in the country's specialisation in international trade, the adjustment of the production system to the demands of international competition, and product quality (for further details on alternative approaches see, for instance, Britto and McCombie 2009; Stockhammer 2008; Arestis and Sawyer 2005).

Figure 15. Labour unit cost and GDP deflator (100=2005)



Source: *Annual Macroeconomic Database*, European Commission

Figure 16. Price of Exports (2005=100)



Source: *Annual Macroeconomic Database*, European Commission

The Greek economy, however, did not exhibit any of the characteristics implied by the theory of internal devaluation. Instead, the reduction in unit labour costs was translated into only a marginal reduction in prices (Figure 15). The GDP deflator declined temporarily in 2013 by approximately 2 per cent and is projected to increase again in the following years. Export prices of goods and services also declined in 2013 and are expected to stabilise at higher levels in years to follow.

In summary, the reduction in labour costs has been accompanied by relatively lower inflation — when compared with other advanced countries — but without being translated into lower prices for exports (see Figure 16 above). To reap the benefits of the policy of internal devaluation, it is imperative that as well as achieving reductions in the domestic prices of goods and services, reductions in export prices of goods and services will have to follow suit. It is in this sense that we argue that the price setting behaviour of firms in Greece does not rest exclusively with unit labour cost fluctuations but, rather, with the economic conditions conducive to profitability.

### 3.2. Modelling the balance of trade.

We contend that the underlying change in net exports is the result of a sharp decline in domestic demand rather than the result of improved competitiveness. In confirming the latter, we follow Schröder (2011) by estimating an ARDL model, which is couched in terms of the following equation:

$$\log(X/M)_t = \alpha_0 + \alpha_1 \log(D)_t + \alpha_2 \log(D)_{t-1} + \alpha_3 \log(REER)_t + \alpha_4 \log(REER)_{t-1} + \alpha_5 (X/M)_{t-1} + \varepsilon_t \quad (1)$$

where  $(X/M)$  is the ratio of exports to imports (of goods and services),  $(D)$  is relative domestic demand, expressed as OECD total demand divided by the home country's demand, and is expected to bear a positive sign reflecting the positive impact of OECD demand on the balance of goods and services;  $(REER)$  is the real effective exchange rate (based on the consumer price index deflator) which is expected to affect net exports negatively (reflecting a loss of competitiveness) and  $\varepsilon_t$  is the error term satisfying the usual assumptions.

Prior to the estimation process a number of tests were conducted to ensure that the variables used were stationary. Given the potential limitation associated with the standard ADF test, i.e. the very low power in detecting stationarity in data series especially when the number of observations is limited or if there are nonlinearities and structural breaks, we opted for a unit root test that takes care of such limitations: that proposed by Kapetanios *et al* (2003). The evidence obtained confirms that both variables are stationary at the 5 per cent level of significance.<sup>8</sup>

With the variables expressed in logarithms, the slope coefficients can be interpreted as short-run elasticities. The long-run elasticities are given by

$$\left( \frac{\alpha_1 + \alpha_2}{1 - \alpha_5} \right) \text{ and } \left( \frac{\alpha_3 + \alpha_4}{1 - \alpha_5} \right) \text{ respectively (see Table 1).}$$

Table 1. Balance of Trade - OLS Regression Results (Greece).

Short-run elasticities					Long-run elasticities	
$a_1$	$a_2$	$a_3$	$a_4$	$a_5$	$\left(\frac{\alpha_1 + \alpha_2}{1 - \alpha_5}\right)$	$\left(\frac{\alpha_3 + \alpha_4}{1 - \alpha_5}\right)$
1.290 (5.04)*	-1.256 (-4.53)*	-0.076 (-0.23)	0.018 (0.05)	0.814 (6.31)*	0.04	0.07

Notes: (\*) denotes significance at the 1% level; Adjusted  $R^2 = 0.89$ ;  
 Diagnostics:  $DW = 1.97$ ;  $LM = 0.57$ ;  $Breusch-Pagan-Godfrey = 0.372$ ;  $Jarque-Bera p-value = 0.861$   
 The data are quarterly spanning the period 2000Q1 to 2013Q4 and were sourced from Eurostat  
 (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>).

Based on the standard diagnostic tests, the estimates yielded are found to be valid. Both the Durbin Watson ( $DW$ ) statistic and the  $LM$  test suggest that the estimated model is free from autocorrelation, whilst the Breusch-Pagan-Godfrey test confirms that there is no evidence of heteroscedasticity. Finally, the Jarque-Bera test confirms that the residuals are normally distributed. The coefficient of determination ( $R^2$ ) is high, suggesting that around 89 per cent of the variation in the dependent variable is explained by variations in the independent variables.

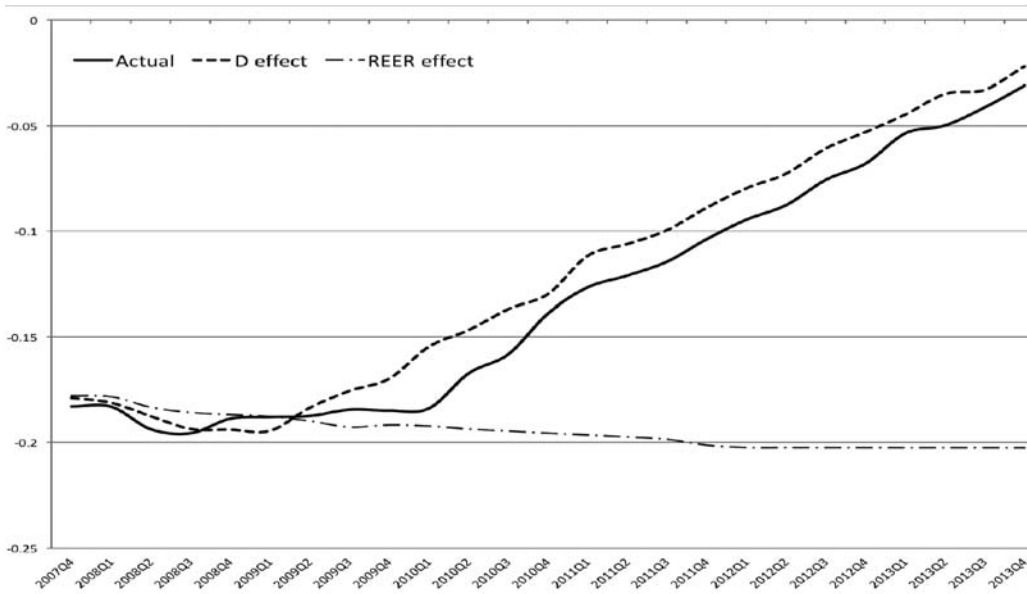
The results shown in Table 2 indicate that the point estimates of relative domestic demand are statistically significant, while the respective coefficients for the real effective exchange rate bear the expected signs but are found to be insignificant. The lagged dependent variable  $(X/M)_{t-1}$  is found to be significant and with the expected sign. As far as the signs on the long-run elasticities are concerned they are in accordance with theory, suggesting that an increase in OECD demand improves net exports, and a rise in the REER (loss of competitiveness) adversely affects net exports in the long run.

The next step is to establish the extent to which the improvement in the trade balance, since the onset of the crisis, is attributable to changes in relative demand or changes in competitiveness. To do this, we simulate the fluctuations of net exports whilst keeping relative demand constant at the level of the fourth quarter of 2007, i.e. eliminating the effect of the external balance.

Similarly, we shall also provide net export simulations by keeping the REER constant at the level of the fourth quarter of 2007, i.e. eliminating the effect of variations in competitiveness.

The results of the simulations reported in Figure 17 suggest that changes in demand ( $D$ ) appear to explain almost all of the variation in the external balance, whilst the impact of REER is insignificant, having practically no real impact on the current account deficit. In other words, it can be argued that it is the declining aggregate demand in Greece that is solely responsible for the significant corrections in the current account deficit.<sup>9</sup> Irrespective of any positive contribution of net exports, it would be almost impossible to compensate adequately for the abrupt collapse in domestic demand instigated by the austerity measures imposed by the troika.

Figure 17. Simulation of net exports



Source: *Annual Macroeconomic Database*, European Commission. (Authors' calculations).

In view of the preceding analysis, it is envisaged that the strategic choice of policy between austerity and internal devaluation as a means of putting the Greek economy back on the recovery track will further weaken the economic and social structures of the country.

The weak performance of Greek exports exemplifies the dogmatic perception held by troika that a reduction in unit labour costs will stimulate competitiveness and usher in export-led growth. Along these lines, Papadimitriou *et al* (2013 p 4) argue that this strategy has had adverse effects on domestic consumption, irrespective of the channels through which any expansionary effects of austerity might be realised, i.e. 'the *expansionary austerity* via severe fiscal contractions would not have any discernible effects on output if they were obtained through cuts in public spending rather than increases in taxation, allowing market-based incentives to work properly'.

A report by the International Monetary Fund (2014) and a study by Blanchard and Leigh (2013) reinforce the view of those who regard the economic adjustment programme as a failure. More specifically, the fact that the expected negative impact on GDP was under-estimated (as evidenced by the fact that the fiscal multiplier was subsequently revised upwards from 0.5 to 1.5) led to over-optimistic GDP growth projections, and a consequent failure to provide an accurate estimate of fiscal aggregates.



It is clear from their report that IMF staff were fully aware of the punitive repercussions of the fiscal squeeze imposed upon Greece - but they failed to translate this accurately into their growth forecasts. The report also goes on to acknowledge that none of the partners seemed to view the austerity programme as ideal but, under the circumstances, it was correct to go ahead with it in the case of Greece, because of the considerable dangers for the euro area and the global economy should Greece default on its debt. It also says that there was little alternative to very rapid deficit-cutting, given the size of Greece's deficit and financing needs.

#### 4. POLICY IMPLICATIONS AND RECOMMENDATIONS

The architects of austerity are of the view that austerity policies can achieve stimulating effects through wage and price reductions. This can be envisaged primarily through the channels of dwindling aggregate demand and increasing unemployment, which will exert a downward pressure on wage claims and through this will lower prices in line with wages. The resulting effect would be an improvement in competitiveness and through this a decline in the trade deficit. Such a rationale, however, might be inherently flawed as rigidities in labour markets preclude market forces from driving down nominal wages sufficiently, resulting in high unemployment. In so far as competition in product markets in deficit countries is poor, prices of domestically produced goods do not fall at the same rate as nominal wages. Most importantly, despite the fact that unit labour costs have fallen significantly in the peripheral countries of the EU — Greece, Spain, Portugal — unit labour costs have also dwindled in Germany due to wage restraint policies, so the net effect might actually be that prices in some of the peripheral countries have in fact risen faster than prices in Germany since 1999. It is in this sense that a number of commentators have been arguing that austerity and internal devaluation have failed dimly (see for instance, Alexiou and Nellis 2013; Kitromilidis 2011; Papadimitriou *et al* 2013). What austerity has achieved is an unprecedented reduction in real wages which, in turn, has stifled aggregate demand alarmingly.

While Greece has recently reported an improvement in its current account position, and net exports are starting to have a positive impact on growth, this cannot be attributed to the strategy of internal devaluation alone, but rather to the impact of recession that Greece has been experiencing as well as the punitive economic policies adopted. In particular, the positive contribution of external demand to GDP growth is due in the main to the collapse of imports, which has been supported by the empirical evidence presented in this study. It is also argued that this is a result of low relative demand and not due to an improvement in competitiveness. We also argue that this positive contribution is not sufficient to sustain economic recovery.

An alternative policy mix is needed that will restore the level of domestic demand, the level of purchasing power and the productive capacity of the economy. It is through demand-side policies that the crippling consequence of

unemployment's hysteresis effects can be effectively reversed in the foreseeable future. It is imperative that the existing policies are superseded by economic initiatives that promote a more equitable redistribution of income and a fairer taxation system. Moreover, structural and institutional changes are warranted in terms of tax law implementation, competition policies in goods markets, industrial policies to promote non-traditional exports, anti-corruption and anti-nepotism-policies, as well as restructuring of the banking sector, to overcome the credit crunch.

Potentially, if the existing policies are replaced as suggested above, the Greek economy can start entering a new phase of economic recovery, moving to a higher growth trajectory with less unemployment and a lower external trade deficit. It is also essential that, in the short-run, prices of domestic products are lowered significantly (thus increasing price competitiveness) to offset the resulting increases in import demand at higher levels of economic activity. Subsequently, a carefully planned investment programme of technological and productive restructuring is needed to reinforce structural competitiveness. In other words, re-activating the economy entails adopting economic policies that are tailored to boost aggregate demand which, in effect, will increase capacity utilisation as well as reduce unemployment.

In all likelihood, the implementation of austerity policies could be regarded as legitimate if adopted by economies that feature an export-oriented private sector, and if they operate in a thriving global and regional economic environment — a case in point is Canada in the mid-1990s. But trying to impose austerity on everyone, at once, in a recessionary global environment, is a policy alternative that is destined to fail. We feel that a more holistic approach is required to deal with a multifaceted economic crisis that has recently plagued the eurozone countries. More specifically, we strongly believe that the eurozone crisis is complex and has to be resolved through policies that target simultaneously the banking crisis, the public sector, the dearth of investment and the humanitarian crisis that has been unfolding in Greece.

The long-term economic outlook for the eurozone as reflected by the European Commission's (2014) projections for the period 2010-2015, is bleak. Labour productivity is expected to increase by only 1.4 per cent per year, GDP by 1.7 per cent per year and, most alarmingly, employment by -0.1 per cent on average per year.

It is, therefore, critical that economic policy within the EU should move away from the punitive austerity policies already imposed on the South European economies and move towards a European model of social cohesion and economic development. It should be apparent that, currently, the type of fiscal adjustment policies demanded by the creditors and the stronger economies within the EU is predicated on the philosophical principles of the neoliberal consensus that currently dominates economic policy in Europe.

## 5. CONCLUDING REMARKS

The case for austerity was put forward by the troika when the Greek sovereign debt crisis erupted. The ensuing fears of a potential Greek default raised concerns about the ability of other eurozone countries to manage their deficits effectively. So what had begun as a private banking sector crisis was transformed into a European sovereign debt crisis, thus shifting the burden of the crisis from the (private) financial sector to the state. Austerity measures were imposed in an effort to reassure and calm the bond markets, the European Central Bank and the International Monetary Fund. According to Papadimitriou *et al.* (2013 p 6), 'It is inconceivable that such a large rebalancing of the Greek economy could take place without a drastic change in the institutions responsible for running the eurozone — a change that would involve shedding discredited theories together with placing less than total reliance on market forces'.

By scrutinising in detail a wide range of Greek macroeconomic indicators, this paper provides critical evidence that the recessionary environment, precipitated by the financial crisis, in conjunction with the austerity measures imposed on Greece have had devastating effects on the Greek economy. While Greece has indeed managed to improve its current account position, with net exports contributing positively to economic growth, there is a need for caution in interpreting this development. The empirical evidence suggests that the shift from a negative contribution of external demand to GDP growth to a positive one is predominantly the result of the collapse of imports, rather than an improvement in competitiveness. We believe strongly that if in the foreseeable future there is not a reversal in the nature of economic policies towards the real economy, with a view to creating conditions where job creation is nurtured, then the already disadvantaged Greek economy — in terms of technological innovation, productivity and capacity utilisation — will be exposed to continuing stagnation and long term (relative) decline.

The left-wing Greek government (SYRIZA) which was elected in January 2015 is fighting against time in an attempt to secure some breathing space for the economy, despite the fact that the government has had to succumb to still harsher bailout conditions brought in by the creditors. At this point in the economic cycle, sustainable economic growth requires that both public and private investment initiatives are in place to provide the initial stimulus for the economy to function again. At the same time, reforms that deal with the structural elements of the economy have to be implemented. In particular, steps have to be taken towards revamping Greece's tax system, as well as releasing the revenue authorities from political and corporate influence. Pensions and credit transmission channels in the economy are fragile. The labour market has been severely disrupted after years of austerity, whilst productivity growth has declined sharply. Industrial policies to promote non-traditional exports need to be put in place. Public administration has to be modernised urgently so that public resources are utilised more efficiently. Overwhelming corruption

and bureaucratic obstacles act as barriers to the formation of new companies, whilst competition in product markets has been hampered.

Many observers continue to argue that the ongoing austerity programme has failed and has left the Greek population weary of reform. Some evidence of this failure is that, despite an unprecedented drop in wages and costs, export growth has been relatively flat — the elimination of the current-account deficit being due exclusively to the collapse of imports.

According to Mazzucato (2015 p 1) ‘the unwillingness to forgive at least part of Greece’s debt was of course hypocritical given that after [World War II] 60 per cent of Germany’s debt was forgiven. A second form of hypocrisy, often lost in the media, is just how much international private banks were saved and “forgiven”, with little scandal amongst the finance ministers’.

In conclusion, there is an urgent need for a forward-looking plan that focuses on sustained GDP growth and domestic demand. It is imperative that such a plan stipulates explicitly a set of more realistic assumptions regarding the achievement of primary surpluses that are consistent with GDP growth rates, net investment, and export expansion. This channel is envisaged to serve as a conduit through which Greek national debt is stabilised, hence providing the necessary environment conducive to long-term economic growth.

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#### ENDNOTES

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2. School of Management, Cranfield University, College Rd, Cranfield, Bedfordshire MK43 0AL. Email: j.g.nellis@cranfield.ac.uk. We are grateful to the editor and the referees for their constructive comments. At the time of writing the situation in Greece is very fluid and subject to considerable volatility. We have, however, endeavoured to anticipate future developments and provided a platform for constructive dialogue where possible.

3. Greece’s public debt during the decade prior to the crisis was around 100 per cent of GDP. Since the early 1990s the gap between public sector and private sector pay widened dramatically. According to Oxfam (2013 p 2) by 2011, ‘it was estimated that public sector salaries were 130 per cent higher than those of private employees, while the average difference across the Eurozone was 30 per cent. Salaries for workers in similar categories were much higher in the public sector, creating a system of insiders and outsiders. This, together with the failure to collect taxes, partly accounts for the increase in Greece’s public debt’. Despite the bailout efforts to reduce the Greek debt load, the key debt-to-GDP ratio has continued to rise, making it increasingly harder to reduce the debt burden. It is in this sense that many commentators argue that the country is no closer to debt sustainability (for more of this see for instance, Krugman, 2015; Stiglitz, 2015).

4. The ECB only embarked on a programme of quantitative easing in 2015.
5. It should be stressed that debt levels have to be brought down to 120 per cent of GDP only in the long run, while the annual deficit (which was 15 per cent of GDP in 2008) has to be reduced as quickly as possible, meaning that the absolute magnitude of the debt does not rise further and will be reduced gradually with stipulated budget surpluses.
6. The troika had counted on FDI via a programme of privatisations as a way to improve 'structural competitiveness'.
7. Note that data limitations mean that we use the version of the Annual Macroeconomic Database that was published prior to the revised version in Spring 2014.
8. In the interest of brevity, we do not report the unit root test results here, but these are available from the authors upon request.
9. Our results are in line with Uxó *et al.* (2014) who show that the positive contribution of net exports to growth is insufficient to drive the recovery in terms of employment creation.

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