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National Institute Economic Review 2011 217: R60

DOI: 10.1177/0027950111420921

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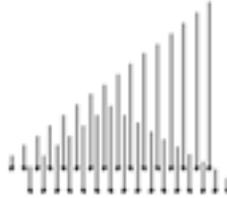
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FROM INDECISION TO FAST-TRACK PRIVATISATIONS: CAN GREECE STILL DO IT?

Nicos Christodoulakis*

This paper explains how the collapse of growth after 2008, in combination with soaring public and external deficits, led to the escalation of Greek debt, while the government's delay in responding to the crisis increased the cost of borrowing and necessitated the bail-out agreement with the IMF and the European Union. One year later, Greece is struggling to harness fiscal deficits amidst a deep recession and rising social tension. Debt sustainability has not yet been ensured and another tranche of loans has been negotiated under new terms and conditions, including higher taxes and extensive privatisations of public companies and property. The paper discusses the main failures of the bail-out agreement and why the lack of growth so far has undermined efforts at stabilisation. As an alternative, the paper suggests that with a modest return to growth, combined with fast-track privatisations, the prospects of debt sustainability improve substantially. In light of the recent debate on the European Stability Mechanism, the paper suggests that the bail-out facility should avoid the debt seniority condition, so that Greece could return to normal market borrowing after 2013 without raising new fears of 'haircuts' on private sector obligations.

Keywords: Debt; fiscal policy; Greece

JEL Classifications: H60; H61

I. Introduction

Last year the European Union (EU), together with the International Monetary Fund (IMF) and the European Central Bank (ECB), launched a rescue operation to salvage the faltering Greek economy and, thereby, to contain its alarming reverberations into the banking system of the Euro Area. One year after the EU-IMF bail-out, Greece continues to be haunted by the spectre of insolvency, while for the third year running a deep recession has fed waves of social unrest and severely undermined the political will to accelerate reforms. In the meantime, Ireland and Portugal have similarly been subjected to programmes aimed at stemming a peripheral debt crisis, thus showing Greece to be part of a more general problem in the Euro Area and worldwide.

Current market opinion overwhelmingly takes the view that Greek debt is unsustainable and the country is sooner or later bound to default on obligations, as seen by the increasing volume of transactions on credit-

default-swaps (CDS). Many in Greece and abroad wonder whether a *Deus ex machina* is going to appear or whether the end of the road is quickly approaching.

In spite of the doomsday literature, the present paper adopts a different view. It argues that the current lack of sustainability in Greek debt dynamics, rather than being a long-term predicament, was mostly the result of recent fiscal episodes of dramatic proportions, combined with the global recession after 2008, and was further exacerbated by a shocking delay in taking appropriate action. This implies that Greek debt could be stabilised again, if drastic action is undertaken to implement fast-track privatisations to repay some of the obligations and resume growth. This is in line with currently negotiated new terms and conditions between Greece and the bail-out partners, but I suggest a number of alternative assumptions regarding the feasibility and likely effects of the new policies.

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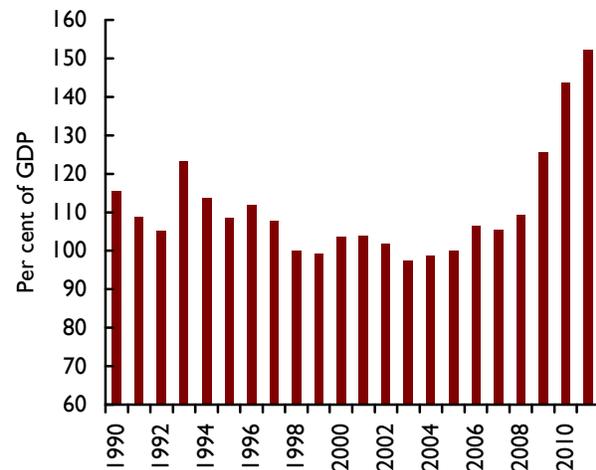
With hindsight, the mechanics of excessive debt accumulation are easy to explain. The main reason for the fiscal collapse was the fact that primary surpluses first practically vanished after 2003 and then became big deficits after 2008 as a result of a steep rise in public consumption and a collapse in revenues. As a result of the global crisis, public debt increased further because of the emergency finance that was deemed necessary to safeguard the smooth functioning of the Greek banking system. Finally, the economy started falling into deflation, and a typical debt trap was created causing the debt–output ratio to explode, thus raising serious doubts about long-term sustainability.

The delay in decision-making, both in Greece and the European Union, was another factor making the situation uncontrollable. Although the crisis loomed throughout 2009, no serious fiscal action was undertaken by the authorities until borrowing activity was no longer feasible and the country asked for the rescue operation in April 2010. The bail-out calmed the bond-holders in foreign banks, but ushered in a new period of domestic challenges.

Despite the huge loan facility of €110 billion granted to Greece for a period of two years, the bail-out decision was not sufficiently detailed and effective enough to produce a quick rehabilitation of public finances. The terms and conditions set in the agreement (commonly called the ‘Memorandum’) envisaged restoring sustainability by increasing taxation and pushing for structural reforms, so that eventually competitiveness would be invigorated and lead the economy onto a growth path. One year after its implementation, the initial Memorandum is judged to have been neither successful nor adequate. The reason is that, with recession unabated, stabilising the debt–output ratio requires enormous primary surpluses which the government will find increasingly difficult to generate in an environment of rising social pressure and political fatigue. In fact, Greece is currently negotiating a new tranche of financial facility from the IMF and the EU to cover its borrowing needs after 2012, in exchange for a new round of policy reforms and extensive privatisations as described in the Medium Term Fiscal Program (MTFP).¹ At this stage, it is crucially important that the chance of getting the economy out of recession is not missed again and it is encouraging that the EU has recently begun, at last, to explore the possibility of releasing more structural funds for Greece and other indebted countries in order to stimulate economic activity.

Restoring growth would have a substantial descaling effect on the debt–output ratio, which could be brought

Figure 1. Greek public debt as per cent of GDP for the period 1990–2011



Source: General government debt, ESA95 definition, Ameco Eurostat 2011, GDP at market prices, IMF WEO database 2010.

down further using fast privatisations. This would immediately stabilise the debt–GDP ratio and then reduce it to levels close to those before the 2008 crisis. For such an outcome to be sufficient to calm markets, it is advisable that the loan repayment provisions envisaged by the European Stability Mechanism (ESM) do not fuel any new uncertainties. In practice, this implies that the EU loans are repaid without seniority clauses after the mechanism becomes operational in 2013.

The rest of the paper is organised as follows. Section 2 describes the origins of the fiscal crisis in the years before and after the global crisis in 2008. Section 3 develops a simple theoretical model to portray the effects of policy indecision on the Greek yield curve and thus explain why borrowing capacity was exhausted and the country asked for the bail-out. Section 4 assesses some critical parts of the IMF–EU conditionality programme and examines how alternative policies could enhance growth and restore solvency. Section 5 concludes with some policy suggestions concerning the way that the ESM will apply.

2. A tale of twin deficits and recession

There were three reasons for the explosiveness of Greek finances: prolonged deficits during good times; prolonged indecision during the global crisis; and prolonged recession which eroded the prospects of fiscal

rehabilitation. To show how the situation reached such an uncontrollable state, the period since Greece joined EMU in 2000 is divided into three sub-intervals: the first is 2000–3, representing the first four years under the

Table 1. Comparison of key economic variables in Greece

Period averages (ave)	Post EMU 2000–3	Post Olympics 2004–8	Post crisis 2009–10
Ave net revenues % GDP	26.36	22.66	21.42
Ave public consumption % GDP	20.13	20.60	25.25
Ave primary surplus % GDP	2.54	-0.79	-6.65
excl. public investment	6.23	1.67	-3.84
Investment surplus	-3.69	-2.47	-2.81
Ave gen. govt deficit % GDP ^(a)	4.51	5.20	12.13
Ave debt rise euro bn, p.a.	9.00	18.68	31.90
Ave GDP rise euro bn, p.a.	12.05	13.34	-0.41
Period ave debt as % GDP	101.57	103.96	130.96
Period change in debt % GDP	-4.63 ^(b)	10.71	27.14
Ave current account as % GDP	-5.55	-11.90	-10.48
Ave current account euro bn	-8.44	-26.37	-24.93
Ave growth rate %	4.51	3.42	-3.29
Ave inflation rate %	3.47	3.41	3.03

Sources: General government debt, ESA95 definition, Ameco Eurostat 2011. GDP at market prices, GDP growth rate and inflation rate: IMF WEO database 2010. Fiscal figures: Annual Budget Reports (various editions). Current account: Bank of Greece, Statistical Bulletins (various editions).

Notes: All figures denote annual average over the corresponding period, unless stated otherwise. Total changes for unemployment rate and debt to GDP ratio are differences from end-to-beginning of each period. Figures for 2010 are estimates published in spring 2011. (a) According to the Eurostat rules (code ESA 95), the general government deficit is defined as the sum of interest payments and the deficit of social security organisations, net of the primary surplus of central government as shown above. (b) A widely publicised currency swap took place between the Hellenic Republic and Goldman Sachs in mid-2001 in order to convert rising yen liabilities to euros. The swap was based on historic exchange rates and resulted in a decline of the debt–GDP ratio by about 1.40 per cent, in exchange for a rise in deficits of 0.15 per cent of GDP in subsequent years, so that the overall fiscal position remained unchanged in present value terms. The change in debt was recorded as of end-2001. The calculation of a change in debt between 2000–3 by -4.63 percentage points is net of the above swap. Without this adjustment, the change in the debt–GDP ratio would appear larger at -6.03 percentage points, based on the currently available AMECO dataset. In any case, the swap effect disappeared a few years later due to the rapid depreciation of the yen against the euro after 2002. The aforementioned swap was irrelevant to the eligibility of Greece entering the Euro Area in June 2000 as entry assessment was based exclusively on the performance of the economy up to 1999.

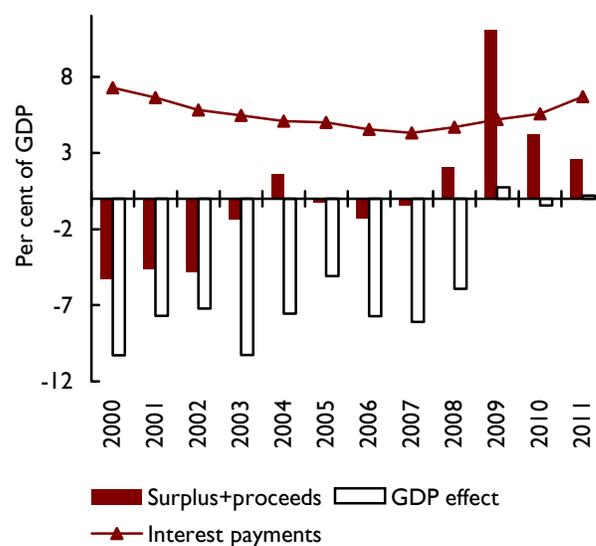
common currency; the second 2004–8, covering a similar period from the Olympic Games until the global crisis; while the third includes 2009 and 2010, when Greece was driven out of international markets and sought the IMF-EU bail-out. Table 1 summarises some key macroeconomic and fiscal variables so that one can see how they were deteriorating from one period to another.

As depicted in figure 1, Greek public debt had been over or close to 100 per cent of GDP for most of the past twenty years. When the economy was hit by big deficits and deep recession after the 2008 crisis, an upward surge in the already high debt stock made the situation uncontrollable. To examine which factors primarily affected the debt–output ratio the following accounting formula is used:

$$\Delta b = (ipay) - nb_{-1} - [surplus + privat] + (other) \quad (1)$$

where (b) is the ratio of debt to GDP and Δ denotes the period difference. The debt-augmenting factors are the interest payments ($ipay$) and various one-off obligations ($other$), such as defense orders or payments of loan guarantees to public enterprises, all expressed as ratios to output. Apart from the primary surpluses, the debt–output ratio is reduced by the amount of privatisations ($privat$) and is downwards adjusted by the effect that

Figure 2. Main debt-augmenting factors as per cent of GDP, 2000–11



Sources: Budget Reports, various editions. GDP at market prices, IMF WEO database 2010.

Note: A negative sign implies a reduction in the debt–output ratio.

nominal GDP growth (n) has on the previous period debt–output ratio (b_{-1}). The profile of the above factors during the past decade is depicted in figure 2. Expressed as a ratio to output, interest payments have experienced a limited rise since 2008, but were still kept below the level of the beginning of the decade when Greek debt was regularly serviced without any concern about default. The one-off items did not show any major change either, and in any case they are of a magnitude around 1 per cent of GDP per year. It is, thus, obvious that the main debt-augmenting factors have been the reversal of primary surpluses into deficits, the decline in privatisations and the disappearance of growth as discussed below.

2.1 More fiscal deficits, no growth and privatisations in reverse

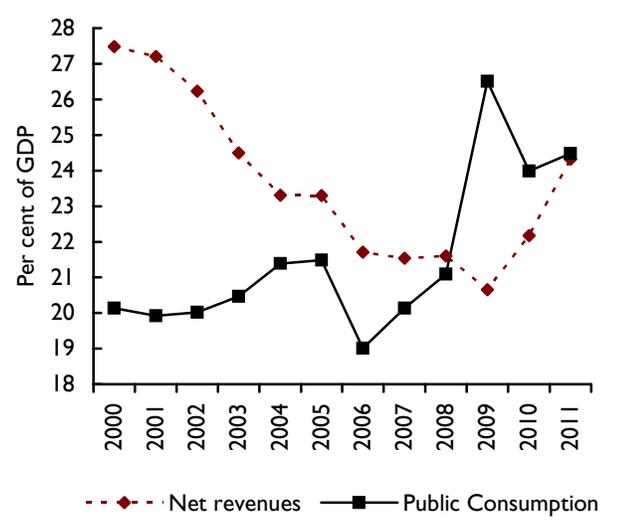
The fiscal snowball began with a gradual fall in revenues in the post-EMU period and ended with rocketing expenditure in 2009. As figure 3 and table 1 show, revenues were on average 3.70 per cent of GDP per annum less in the post-Olympics period 2004–8 compared to the post-EMU period 2000–3, partly as a result of a rise in the tax-free income thresholds in 2003, a major cut in the corporate tax rate from 35 to 25 per cent in 2005 and extensive inattention to the collection

of value-added tax (VAT). Public consumption (i.e. excluding public investments) was basically kept under control and rose by a marginal 0.50 per cent of GDP in the second period. The public investment deficit was on the rise in the years of Olympic preparation, reaching 3.70 per cent of GDP, but then declined to below 2.50 per cent after the Games.

Primary surpluses were on average 2.54 per cent of GDP and led to a mild reduction of the debt–output ratio by 4.6 GDP units between 2000–3, but in the second period they turned to deficits of –0.80 per cent of GDP on average and ushered in the period of debt-escalation. In 2007 a spiral of elections and fiscal uncontrollability was set in motion. That summer, the government, worrying about rising deficits and paralysed by the effects of the wild forest fires sweeping the country, sought a fresh mandate. Despite securing a clear victory, no action was taken to redress public finances and debt continued to accumulate. Thus, at the end of 2008 public debt was up by 10.71 GDP units relative to 2004, severely limiting the room for policies aimed at combating the effects of the global crisis which erupted that year.

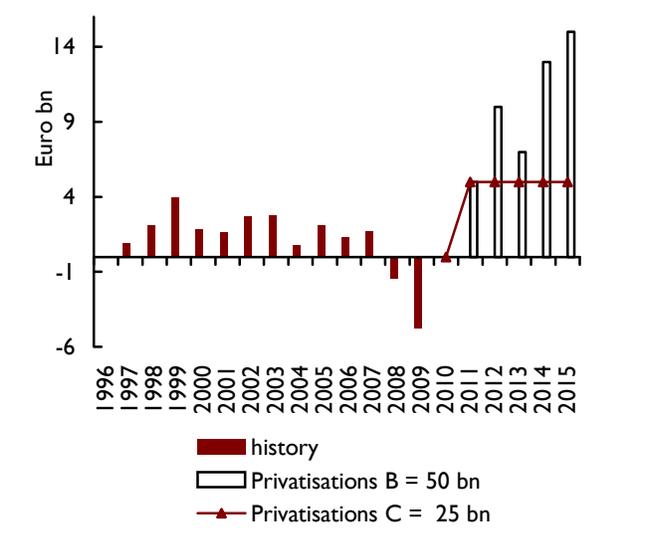
In the aftermath of the crunch, the Greek government

Figure 3. Public consumption and revenues as per cent of GDP in Greece, 2000–11



Sources: *Budget Reports*, various editions. GDP at market prices, IMF WEO database 2010.

Figure 4. Privatisation past and future



Sources: Annual proceeds as reported by the *Privatisation Report*, Ministry of Finance, 2008. Proceeds are net of capitalisations in state-owned enterprises. Data for 1996 and 1997 are taken from Budget Reports. Figures for Scenario (B) are taken from MTFP. For Scenario (C), own assumptions.
 Note: For 2008, 2009 and 2010, figures of proceeds are net of bank shares purchases, hence the negative sign.

remained for a long period indecisive about what exactly to do on the fiscal front. Swaying between fiscal stimulus to raise demand and higher taxation to control the deficit, weakened by internal division and subjected to a major defeat in the June 2009 European elections, it finally opted for yet another election in October 2009. The fiscal consequences of policy inaction, combined with a last-ditch attempt at pre-electoral largesse to service special interest groups,² were stunning; public consumption was pumped up by almost 6 percentage points of GDP in a single year, reaching 27 per cent of GDP at the end of 2009, while revenues tumbled. The general government deficit, initially set at 6.7 per cent of GDP, was revised to 11 per cent in June, 12.4 per cent in October 2009 and finally jumped to 15.4 per cent of GDP by the end of the year, triggering the fiscal collapse.

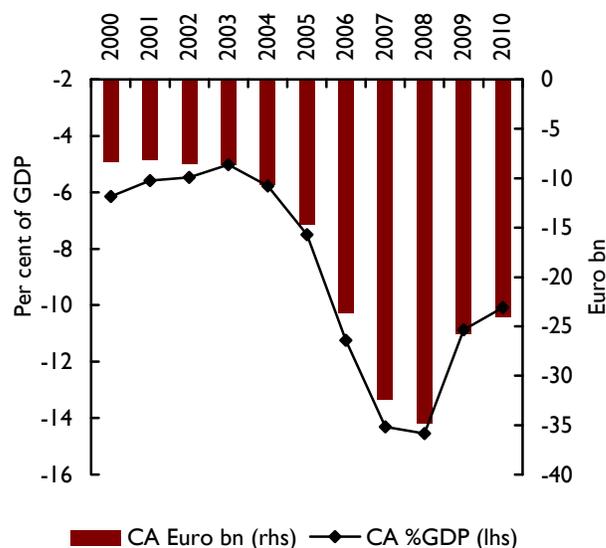
The second front of neglect was privatisation policy. In the past proceeds from privatisations were used to repay part of the public debt both before and after the country's accession to EMU. Proceeds peaked at 3.4 per cent of GDP in 1999, but subsequently remained below 2 per cent as a result of the capital markets contraction after the dot.com bubble, the global recession in 2003 and the reform-fatigue that prevailed after EMU.³ The privatisation process was further slowed after the elections of 2004 and proceeds fell below 1 per cent of GDP per year, despite the fact that the then government had made a strong pre-electoral pledge for far-reaching changes in the economy and a radical restructuring of the public sector. The privatisation process almost ceased in 2007 and proceeds turned negative after 2008, as the government had to finance the emergency capitalisation of Greek banks, thus directly augmenting public debt: see figure 4.

Finally, the explosive dynamics of the Greek debt–output ratio were crucially affected by the disappearance of nominal GDP growth. With a stock of debt serially above nominal GDP, its ratio to output was substantially diminishing every year as a result of real growth rates of around 4 per cent and inflation rates exceeding 3 per cent per annum on average. As figure 2 shows, the GDP effect was so strong that it more than compensated for the interest payments until 2008. The output effect disappeared completely after 2009 when recession deepened and GDP growth stopped even in nominal terms.

2.2 External deficits

Before 2008 Greece was able to borrow at a cost exceeding the German 10-year bund by no more than half a percentage point, but the cost was raised sharply

Figure 5. Current account in Greece, 2000–10



Sources: Current account in billions of euro, Bank of Greece, *Statistical Bulletin* (various editions), GDP at market prices, IMF WEO database 2010.

after the crisis and not just from the effect of swollen state finances. Against conventional wisdom, sovereign spreads after the 2008 crunch also peaked in economies with very low public debt or deficits, if they happened to have large external imbalances.⁴ The effect is by now well-documented⁵ and formal evidence exclusively covering the Euro Area economies is presented in the Appendix for the period covered here.

The estimation reveals that current account deficits exert a strong upward pressure on borrowing spreads, comparable to that due to public debt and deficits. As Greece happened to have the worst record among Euro Area countries on all three fronts, it came as no surprise that it was so badly exposed to the credit crisis and the first to seek a bail-out. Greece suffered chronically from a current account deficit that was around €8 billion or 5.55 per cent of GDP in the first period of examination: see figure 5 and table 1. After a strong import boom during the post-Olympics euphoria the external deficit widened to €34.8 billion, or 14.55 per cent of GDP in 2008, by far the largest external imbalance worldwide as a proportion of output. Though it was manifestly higher than at the beginning of the decade, counter-cyclical action was not considered domestically,⁶ nor was any voice of concern raised by the European authorities.

The same neglect was shown towards other countries as well, as attitudes in Europe and elsewhere held that the cost of borrowing reflects exclusively the fiscal situation in each individual country, since balance of payments crises can be comfortably ruled out in a monetary union.⁷ It was only in the aftermath of the crisis that policy bodies in the European Union started to emphasise the adverse effects that external imbalances might have on the sustainability of the common currency.⁸ In fact, Greece was perceived as an existential threat to the Euro Area not just because of its own internal and external imbalances, but, as Lachman (2010) dramatically put it, “rather ...because similar imbalances are shared to a disturbingly high degree by the very much larger Spanish economy as well as by the economies of Portugal and Ireland”.

3. The cost of prolonged indecision

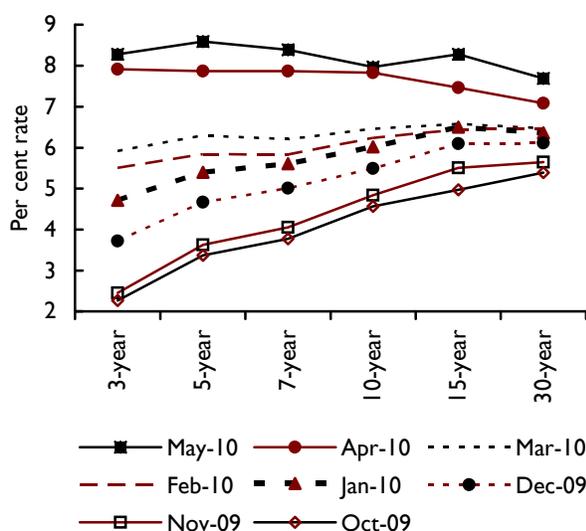
As if the perilous state of the public finances and external imbalances was not enough, the situation was further aggravated by the lack of appropriate action to tackle the deficits both before and after the occurrence of the global crisis. Despite the fiscal strain at home and the alarming signals that international recession was approaching, the government appeared – even in mid-2008 – fully complacent about the situation, claiming that the Greek economy was sufficiently “fortressed” and therefore immune from the reverberations of international shocks.

When the global crisis erupted in September 2008, the government remained for a long time ambivalent as to whether to implement a harsh programme to stem fiscal deterioration or expand public spending to fight off the prospect of recession. A final compromise included a demand-push stimulus package at the end of the year, combined with a bank rescue plan of €5 billion and a pledge to raise extra revenues if necessary. Unsurprisingly, the first two were quickly implemented, while the latter was soon forgotten. The public were quick to realise that no serious action was considered and confidence in the government was sharply eroded. The ruling party suffered a major defeat in the European parliamentary elections in June 2009 and shortly afterwards, in October 2009, called for an emergency general election.

3.1 The paradox of emergency

Though the official justification for calling an early election, after less than two years, was that the country

Figure 6. Greek bond yield curves for the period October 2009–May 2010



Source: Bank of Greece, *Bulletin of Conjectural Indicators*, table IV.23, page 116, March 2011.

needed a tougher economic policy to combat the crisis, the country lived with a double paradox; it was not only the incumbent party that was engaged in a spending spree⁹ of gigantic proportions, as described earlier, but, in a similar mood, the main opposition party was on the one hand promising to rescue the economy from imminent bankruptcy whilst at the same time declaring that “*money exists*” (*lefta yparhoun*), sufficient to finance an expansion of social programmes and renationalise previously privatised key public companies.

As a result of these ambiguities, the new incumbent emerged from the elections far from convinced, let alone prepared, to follow a programme of drastic fiscal consolidation, despite achieving a landslide victory and causing a harmful split in the opposition party. Trapped in its own *clichés* of pre-electoral rhetoric, the new government was slow to grasp the danger of the situation and act swiftly. Even when the budget deficit was reported to the European authorities as having leaped to 12.4 per cent of GDP, the new government was publicly vowing to honour pre-election promises and vehemently excluded privatisations from its policy options.¹⁰

Two months after the elections, the government was still

ambivalent until a chain of events was put in motion in December 2009 after a rating agency downgraded the Greek economy. The ECB promptly warned that the collateral status of Greek sovereign bonds might end shortly, and this sparked a massive wave of credit default swaps on Greek debt; borrowing costs started to increase further for both short- and long-term maturities, and Greece was caught in the merciless spotlight of worldwide attention. International markets, already worrying about the escalation of fiscal deficits, now became suspicious about the government’s willingness to deal with the situation and declined to increase lending to Greece. As figure 6 shows, month after month the yield curve was moving upwards and was becoming less steep, thus diminishing the prospects of cheap short-term borrowing. By April 2010 it was completely flat with all maturities at such a prohibitively high yield that Greece had to turn to the bail-out.

3.2 A simple framework of indecision

In order to analyse how fiscal indecision after the elections in October 2009 led to Greece’s gradual exclusion from the bond markets, a simplified model of one and two-period bonds is adopted. Suppose that there is a situation where revenues (L) net of primary spending are not sufficient to meet the amount of interest payments (D) due in period j. A fiscal gap (ϕ) is defined as the proportion of uncovered obligations in each period, i.e.

$$\phi_j = \frac{D_j - L_j}{D_j} = 1 - \frac{L_j}{D_j} \tag{2}$$

The market believes with probability (p_j) that the government will undertake additional fiscal action sufficient to cover all existing obligations or else with probability ($1-p_j$) will remain inactive. Fiscal resolve in the two periods may differ and probabilities are respectively parameterised as

$$p_1 = \theta + (1-\theta) \cdot \lambda \text{ and } p_2 = \lambda \tag{3}$$

where θ denotes the degree of commitment varying within [0,1] and $\lambda < 1$ as fiscal effort is likely to relax later, due to unforeseen difficulties or plain term-fatigue as the next elections approach. Expected payments to debt holders are given by:

$$F_j = p_j D_j + (1-p_j) L_j \tag{4}$$

The degree of expected ‘haircut’ in each period is obviously

$$b_j = \frac{D_j - F_j}{D_j} = (1 - p_j) \cdot \phi_j \tag{5}$$

The no-arbitrage equation for one-period bonds is given by the expression:

$$1 = (1 - b_1) \frac{1 + R_1}{1 + r} \tag{6}$$

where R_1 and r are the one-period and the benchmark yields respectively.

A haircut in period 2 may be imposed independently of whether or not another has been applied in the first period. Thus, the no-arbitrage condition for the 2-period bond is given by

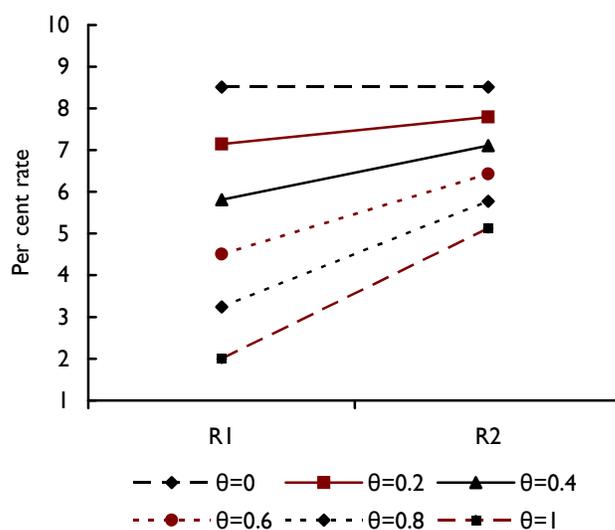
$$1 = (1 - b_1) \frac{R_2}{1 + r} + (1 - b_1)(1 - b_2) \frac{1 + R_2}{(1 + r)^2} \tag{7}$$

where R_2 is the yield on the 2-period bond and b_2 the degree of expected haircut in the second period. Yields are then obtained as functions of expected haircuts as:

$$R_1 = \frac{1 + r}{1 - b_1} - 1 \tag{8}$$

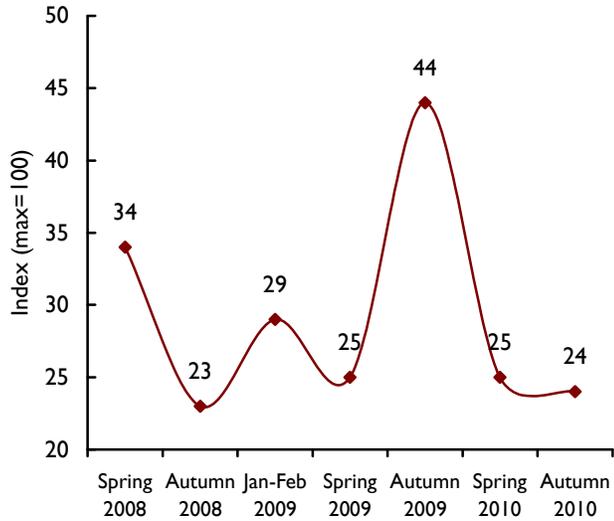
$$R_2 = \left[1 + \frac{1 - b_2}{1 + r} \right]^{-1} \left[\frac{1 + r}{1 - b_1} - \frac{1 - b_2}{1 + r} \right] \tag{9}$$

Figure 7. Two-period yield curves for various degrees of commitment



Note: Parameter values were $\phi = 0.30$, $\lambda = 0.80$, $r = 4$ per cent.

Figure 8. The rise and fall in the index of public trust of government regarding the economic situation



Source: Eurobarometer No. 69 (Table QA12), 70 (QA12), 71 (QA9.3), 72 (QA10), 73 (QA14) and 74 (Greece, Slide 5).

Recalling (5) it is easy to see how the yield differential is affected by the degree of fiscal resolve in the two periods, i.e.

$$\frac{\partial(R_2 - R_1)}{\partial p_1} > 0 \text{ and } \frac{\partial(R_2 - R_1)}{\partial p_2} < 0 \quad (10)$$

The above expressions imply that the yield curve becomes steeper (flatter) with an increasing (decreasing) fiscal resolve in the first period, represented by a rise (fall) in p_1 . The reverse is the case with a change in the fiscal resolve in the second period, represented by p_2 . The following cases are examined:

(i) *Front-loaded action* ($\theta = 1$): In this case $p_1 = 1$ as the market expects that appropriate action to meet current obligations will be undertaken immediately. The implication is that $h_1=0$ and $h_2>0$ and this leads to an upward yield curve with $R'_1 = r$ and

$$R'_2 = \frac{r^2 + 2r + h_2}{2 + r - h_2} > r \quad (11)$$

(ii) *Complacency* ($\theta = 0$): In this case $p_1=p_2 = \lambda < 1$, effort is below requirements in both periods and, assuming

the same fiscal gap in both periods, expected haircuts are now $h_1=h_2>0$. Expressions (8) and (9) give that:

$$R''_1 = R''_2 = \frac{r + h_1}{1 - h_1} > R'_2 \quad (12)$$

The yield curve moves upwards and becomes flat. Intermediate cases $0 < \theta < 1$ are similarly examined. Starting from a steep position when full-scale fiscal action is expected, the yield curve is becoming flatter as resolve is waning away. A graphical illustration of how the yield curve is upward shifting with indecision is given in figure 7.

The simple model reflects with surprising accuracy the situation of diminishing resolve that prevailed from the last quarter of 2009 through to the first quarter of 2010. Following Roth *et al.* (2011), an index of public trust measured by the Eurobarometer is used to reflect the prevailing sentiment on whether the government is considered capable of tackling the problems of the economy.

As figure 8 shows, the index of trust rose sharply in the autumn of 2009, when the Greek government was angrily reporting that the public deficit was found to be even higher than expected and vowing to take all necessary measures to tackle it. Though not spelled out, the public drew the conclusion that swift fiscal action was under way and this explains the relative calm of markets before the upswing in yields that took place in December 2009 after the downgrading by rating agencies. Using the theoretical framework, the high-resolve expectations are captured by letting $\theta = 1$, to get $p_1=1$ and a steep yield curve as shown at the bottom of figure 7.

In reality, figure 6 shows the yield curve was indeed steep and upward sloping immediately after the elections in October 2009, and short-term maturities were traded at yields substantially lower than the ten-year maturities.¹¹ But as no serious action was undertaken in practice, the index of trust started to fall again and in Spring 2010 was approaching the same level as it had reached when the crisis erupted in September 2008. The public was gradually adjusting its expectations downwards, thus driving the probability of resolve to the complacency level $p_1 \rightarrow \lambda < 1$. The curve was becoming increasingly flat, and Greece was borrowing at increasing costs in all maturities until it was finally driven out of the markets.

4. The IMF-EU Memorandum: from unwillingness to misfire

Another factor that further aggravated the situation was the European authorities' lack of preparedness and willingness to react promptly¹² to Greece's rapid isolation from international bond markets. This was clearly manifested when the ECB refused to grant collateral status¹³ for all denominations of Greek sovereign bonds supplied by commercial banks in exchange for liquidity. As this came only days after Greece was downgraded by the rating agencies in December 2009, it sparked new fears of an imminent default. Subsequently, in March 2010, the ECB conceded that Greek sovereign bonds would enjoy full collateral treatment for another three years regardless of rating status, but by then it was too late to reverse the prevailing view that Greece was on the brink of insolvency.

At the same time the EU authorities were sternly refusing the option of IMF intervention in a Euro Area country and suggested that a new fiscal programme launched in January 2010 by the Greek government would be sufficient to restore confidence. Their stance

was dissipated only when it became clear that the difficulties of servicing the Greek debt might quickly permeate the banking system of other European states and cause another painful recession in their economies just as they were coming out of the previous slump. Earlier lack of speed was now replaced by haste and Greece was ordered to implement a Memorandum of ambitious revenue targets and structural changes, aimed at ensuring fiscal credibility and the restoration of competitiveness and growth. After sweeping negotiations, a joint loan of €110 billion was finally agreed in May 2010 by the EU and the IMF to be granted to Greece to substitute for unreachable market borrowing. A brief assessment of its outcome after the first year of implementation is given below.

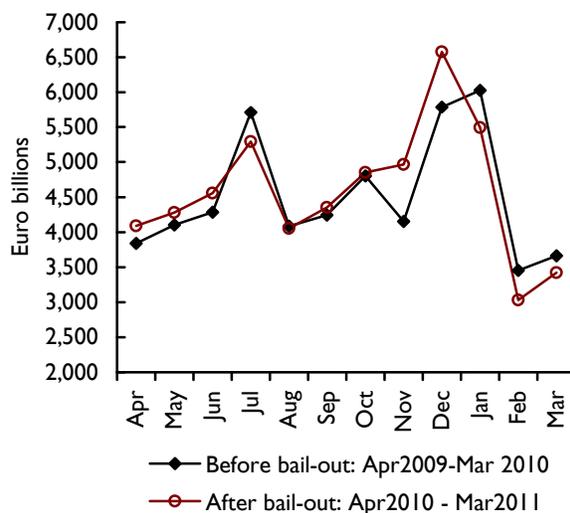
4.1 New taxes, but no new revenues

With a record of dithering over tax collection, in March 2010 the government finally rushed to raise revenues by increasing¹⁴ the VAT rate from 19 to 21 per cent. Although experience from a similar decision to raise the VAT rate by 1 per cent in 2005 suggested that it was more likely to be used as an excuse to increase prices rather than revenues, the authorities were hoping that recession would this time deter price increases. To combat increased incentives for VAT appropriation by retailers, the government launched a campaign of receipt collection and announced further measures to beat tax evasion.

With no evidence of success in the first two months, the same measure was recommended by the Memorandum and in May 2010 the VAT rate was further put up to 23 per cent. Again, projections proved unrealistic and CPI inflation was rampaging at 4.5 per cent at the end of 2010 – substantially above previous years.

A comparison of total revenue collection during the twelve months prior to and after the implementation of the Memorandum is revealing, as shown in figure 9. Although revenues were enhanced by a lucrative lump-sum tax in exchange for settling previous arrears (*'peraiosis'*), a heavy increase in fuel tax and a substantial rise in several consumption surcharges, net collection remained virtually the same as in the corresponding months before the tax storm. As nominal GDP remained stagnant between 2009 and 2010, the failure to raise revenues should be solely attributed to the continuing slackness in the collection mechanism and the increased incentives to evade it. Liquidity-starved retailers were quick to recognise the

Figure 9. Monthly total revenues before and after the implementation of the bail-out Memorandum



Source: Bank of Greece, *Bulletin of Conjectural Indicators*, various editions.
Notes: Higher VAT rates were introduced in April 2010. The red line spans the period April 2009–March 2010, while the black line spans the same period one year later.

VAT increase as a new opportunity for cash, worth enough to ignore the cost of apprehension.

With growth plummeting, the economy ended in a typical stagflation situation, with fiscal revenues unimproved and debt continuing to accumulate.¹⁵

4.2 New reforms, but no growth

The bail-out Memorandum included the implementation of structural reforms that would reduce various scleroses in the economy, cut red-tape in entrepreneurship, shrink public ownership in utilities and improve competitiveness. Such reforms were seen as sufficient to bring about growth and achieve the fiscal deficit targets, without succumbing to any sort of Keynesian stimulus against the deepening recession.

In practice, however, success has been limited and in any case far from generating growth. A major reform took place in the ailing social security system, which was characterised by very low retirement age, generous pension/wage ratios and extensive abuse of invalidity benefits. The reform was met with strong resistance organised by public sector unions but, in the end, it succeeded in raising age limits, extending backwards the salary base on which pensions are calculated and rationalising the overly slack provisions for early

retirements. Even this reform, however, had no immediate fiscal benefit as savings will mostly occur in the future. Ironically, as a result of the reform, several pension funds were further burdened by the rush of near-retirement employees in the public sector taking advantage of favourable transition clauses and exiting service before the new regime was applied.

Ending barriers to entry in a number of activities was fiercely opposed by insiders and initial plans were seriously compromised. For example, an ambitious and protracted liberalisation of lorry licensing was granted a postponement for two years, while the lifting of downward price controls for lawyers and dispensing chemists was abandoned one day before submission for parliamentary approval. Not surprisingly, these reforms were not translated into more growth and, without any other supply- or demand-driven initiative in sight, the economy experienced an even deeper recession in 2010, with GDP falling by a further 4.50 per cent.

4.3 Lower public spending, but no privatisations

The Memorandum was more successful in curtailing the explosive path of public consumption from €62 billion in 2009 down to €55.6 billion in 2010, through universal pension and salary cuts. This was the main reason that the general government deficit was brought

Table 2. Alternative scenarios for the debt–GDP ratio

	2010	2011	2012	2013	2014	2015
<i>Assumptions</i>						
Private bond holders (€ bn)	33.0	32.0	34.0	31.0	32.0	21.0
IMF–EU loans (€ bn)	31.5	43.0	25.5	10.0	(*)	(*)
Treasury bills (€ bn)	10.0	11.0	14.0	14.0	14.0	15.0
Deficit % GDP	–10.4	–7.6	–6.5	–4.9	–2.6	–2.6
Inflation rate in A, B1, C1	1.4	1.3	0.9	1.1	1.1	1.1
Inflation rate in A2, C2	1.4	2.0	2.0	2.0	2.0	2.0
Growth rate in A, B1, C1	–4.5	–3.8	0.6	2.1	2.3	2.3
More growth in B2, C2	–4.5	0.6	2.1	2.3	3.0	3.0
<i>Public debt % GDP</i>						
A. Low growth, PRV = 0	142.70	153.96	158.18	158.08	156.27	154.44
B1. Low growth, PRV = €50 bn	142.70	151.73	151.60	148.72	141.42	133.39
C1. Low growth, PRV = €25 bn	142.70	151.73	153.79	151.70	147.74	143.78
B2. More growth, PRV = €50 bn	142.70	144.57	141.31	137.55	128.48	118.92
C2. More growth, PRV = €25 bn	142.70	144.57	143.34	140.28	135.02	129.00

Source: MTFP, 2011, and own calculations.

Notes: (*) Amounts not yet specified as decision by IMF-EU is expected end of July 2011.

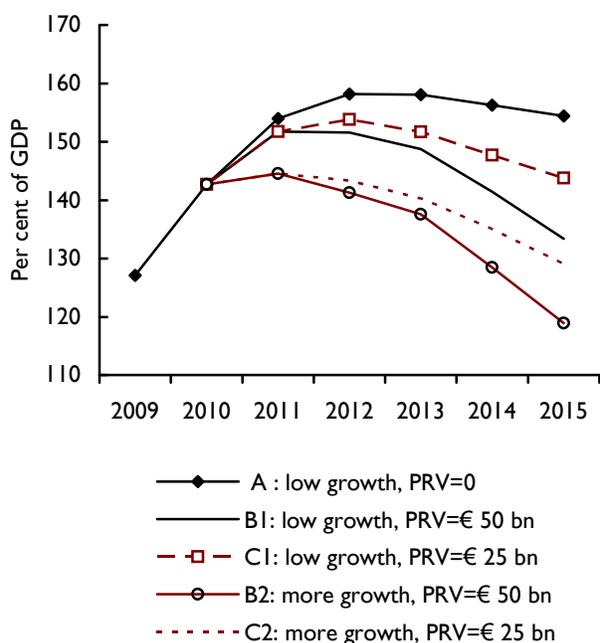
1. Maturities and IMF-EU loan tranches as in Memorandum.

2. Interest payments are calculated on the basis of a 5% yield on bonds and 4% on Treasury bills. Interest rate reductions currently envisaged by EU not taken into account. The amount of Treasury bills as planned in 2011, projections for 2012–15 set by the author.

3. After 2011, further loans from IMF-EU are assumed until Greece taps the markets.

4. Scenario A: recession continues and no privatisation takes place. Scenarios B1, C1: with recession and privatisations; Scenarios B2, C2: with early growth and privatisations. In B1, B2 privatisations total €50 bn in 2011–15. In C1, C2 privatisations amount to €25 bn.

Figure 10. Alternative paths for public debt as per cent of GDP



Source: *Budget Report 2011* and MTFP (2011).

Notes: (A) Benchmark, as reported in *Budget Report 2011*. No privatisation considered. (B1, C1) Growth and inflation rates as in (A), but with privatisations (PRV). (B2, C2) Early growth starting at 2011 by 0.60 per cent and privatisations.

down from an ominous 15.4 per cent of GDP in 2009 to around 10.4 per cent of GDP in 2010.¹⁶ But this was achieved at a heavy political cost. Given the strong affiliation of public unions to the ruling party, the implementation of expenditure cuts caused an irrevocable alienation from the government, so that further action of a similar kind is unlikely. On the other hand, the more promising path of privatisations remained completely unused, until decisions to speed them up were finally taken in mid-2011.

4.4 An alternative path for debt sustainability

The dynamics of the debt–GDP ratio are sensitive to the prospects for growth and five alternative scenarios are presented to show this effect. First, a baseline Scenario (A) is obtained in which no explicit action is considered to prompt growth, as has been the case so far. According to the official predictions in MTFP, recession will continue through 2011 at a rate of –3.80 per cent of real GDP with a small growth of 0.60 per cent appearing only in 2012, while inflation is projected at the

particularly low level of 1.10 per cent. In this benchmark scenario no privatisation is assumed to take place, though deficit targets are kept as agreed in the Memorandum. Simulations are based on equation (1) and a number of assumptions as described in table 2 where the main results are shown. The debt path depicted in figure 10 is found to escalate to near 160 per cent of GDP in the next two years before declining slowly after 2014. Even at the end of 2015, it will still be above the current level.

Alarmed by such a bleak prospect, the government succumbed to pressures from the IMF and the European Union and announced an ambitious programme that includes extensive privatisations of public companies and a plan for real-estate development on public property.¹⁷ The new government programme aims to collect €50 billion during the period 2011–15, or roughly 4 per cent of GDP per annum. Proceeds from the programme will be earmarked for buying back debt. To enquire into the effects on debt dynamics an alternative scenario is run by assuming that privatisations are implemented as officially announced, but with growth and inflation rates remaining as in the benchmark case. In this scenario (B1) the debt–output ratio is immediately stabilised and then declines to 133 per cent of GDP at the end of 2015, still higher than the level in 2009 when the crisis erupted.

Despite the strong rhetoric, the above target should be viewed with caution for two reasons: first because, as history suggests, privatisations have seldom been popular in Greece and it was only in the run-up to EMU that the government decided to invite private investors to participate in the ownership of public companies. The second reason is that privatisations have been virtually abandoned in the past two years and for the programme to be put in motion again extensive and careful planning will be required. It is thus questionable if, in the present circumstances of recession, widespread industrial action and adverse market conditions, the target of raising 4 per cent of GDP per annum is realistic, unless a major political mobilisation takes place to ensure intra- and inter-party consensus and trade-union cooperation.¹⁸

An alternative scenario (C1) assumes that proceeds will be at only €5 billion or around 2 per cent of GDP per annum until 2015. This moderate privatisation programme seems more comparable to historical experience than the more aggressive plan shown in figure 4. With growth and inflation assumptions again as in the benchmark case, the debt–output ratio is found

to rise further in 2012 and by year 2015 return to a level slightly higher than last year. Thus, if recession continues, the only effect of the moderate privatisation programme will be just to avoid further debt escalation!

A further step is to explore the effects that privatisations are likely to have on debt if combined with more growth. Growth-assisting policies may include direct investment grants financed by EU funds and front-loaded EU financing of regional infrastructure, as recently proposed by the EU authorities. Thus, an amount of €15 billion could become immediately available for the period until 2013 to fight recession and unemployment. Moreover, in order to avoid the concomitant rise in public deficits as required by the national co-financing clause, the European Commission will consider minimising or even waiving this obligation for an unspecified number of years so that deficit targets will not be affected.¹⁹ Privatisations also, even at a moderate level, are likely to accelerate restructuring in public enterprises and invigorate investment activity both at a company and sector level, thus leading to some growth.

Assuming that all the above policies are simultaneously and quickly implemented, a more optimistic alternative is explored by assuming that growth profile resumes at 0.60 per cent in the current year rather than next²⁰ and then continues as described in the baseline Scenario (A) but one year in advance. For 2014–15 a growth rate of 3 per cent is assumed instead of the baseline 2.3 per cent. Inflation is set equal to the more realistic level of 2 per cent, closer to what actually prevailed in the previous years. Deficit targets remain intact as in the baseline scenario. As shown in table 2 and figure 10, the effect of higher nominal growth and privatisations is now quite powerful and the dynamics of debt change considerably.

In the more-growth-full-privatisations Scenario (B2), a serious decumulation of public debt takes place and its ratio to output approaches 119 per cent of GDP in 2015, substantially lower than its level in 2009. Finally, in the 'more-growth-some-privatisation Scenario (C2), the ratio of debt to GDP is immediately stabilised and starts falling from next year, approaching 129 per cent by 2015.

It is worth noting in figure 10 that the growth-assisted scenario (C2), with moderate privatisations, considerably outperforms low-growth scenario (B1) with aggressive privatisations, in the sense that it results in a visibly lower debt–output ratio by 2015.²¹ The implication for the government and the bail-out partners

is that they may find it advantageous to search for policies that will raise growth by a few decimal points rather than pushing for massive privatisations in the middle of recession.

One should bear in mind, of course, that the above scenarios are nothing more than mechanical simulations and far from constituting a firm path of events. For Scenarios (B) and (C) especially, policies should be carefully planned and applied to ensure that macroeconomic assumptions on growth and privatisations truly materialise. Moreover, all five scenarios implicitly assume that financing needs are smoothly covered either by an extension of the bail-out loan as it is currently debated or by a gradual return to normal market conditions after 2012.

5. In place of conclusions: beware the ESM even when bearing gifts

The paper has described some aspects of debt accumulation in Greece and shown that, aside from fiscal deterioration, lack of growth and long delays in deciding on appropriate action exacerbated the initial problem. It is, therefore, important for the restoration of sustainability that policies capable of assisting growth are preferred over those that aim solely to achieve unrealistically high primary surpluses by raising taxes and further contracting the economy. Using a combination of fast-track privatisations and a modest return to growth, the debt–output ratio can be stabilised immediately and decline substantially in the next few years.

The remaining problem is that such an outcome presupposes that a smooth financing of borrowing needs is secured. This, however, cannot as yet be taken for granted before the decisions by the EU on another €100 billion of loans are finalised. Moreover, the new loan should be contracted on the previous terms and conditions of the bail-out agreement without being subjected to the still provisional form of the ESM. Otherwise, the markets, in anticipation of the more complicated criteria on which a continuation of assistance will be considered, might retain their doubts on the applicability and adequacy of the new loan. This is because ESM introduces seniority status for repaying the loans granted by European states. As it stands, ESM will be enacted in June 2013 and will have two new responsibilities over the currently operational mechanism of the European Financial Stability Facility (EFSF). First, it will undertake a systematic assessment of fiscal

sustainability in each individual country and, in case of need, it will provide liquidity funds at a preferred creditor status.²² Second, if servicing the debt is found to be beyond the country's capacity, there will be an appropriate 'haircut' on private sector holdings under a new framework of Collective Action Clauses (CACs).

Although the mechanism was conceived to calm uncertainty in the bond markets, particularly with regard to the indebted periphery, the new provisions of seniority have generated a fresh tide of worries. Sovereign spreads, rather than being reduced, were driven further upward and analysts explained this counterintuitive response by pointing to the perplexities involved in applying CACs to two-tier debt.²³

With regard to Greece, two questions on the applicability of ESM are critical:

- (i) Will ESM underwrite the current bail-out loan of €110 billion on the same conditions envisaged in the Memorandum or is it going to revise the terms and, if so, in what direction? This question would not matter had Greece secured its return to markets in 2011 as initially envisaged in the Memorandum. In that case, the bail-out loan would simply demand regular service costs, even if it were safeguarded by the ESM of any other institution. However, the latest developments suggest that Greece is not expected to tap markets before 2012 and the current loan should both increase and extend the facilitation of regular debt financing for as long as necessary.
- (ii) Will ESM treat any new bail-out loan agreed before 2013 as having seniority status or will this apply only to new loans issued after June 2013? Eventually, this may lead to a vicious circle as more senior debt pushes market rates upwards and results in seeking more (and now senior) assistance from ESM. Market rates will then rise even further and growth will suffer from lack of credit. Such difficulties could utterly jeopardise any chance of Greece returning to normal market conditions for a long period ahead.

Against such a turn of events two provisions must be considered:

- (a) Seniority status does not apply to the loans agreed upon before 2013 or, in any case, prior to ESM becoming operational.
- (b) An extension of maturities from five to ten years should be announced and applied to the IMF-EU loan facility

before 2013, in order to alleviate excessive pressure on repayment requirements in the transition period before growth resumes and the debt–GDP ratio is stabilised.

- (c) Supplementarily, a voluntary extension of maturities on private bond-holders²⁴ could also be examined in a way that does not constitute²⁵ a 'credit event'.

If such borrowing cost-mitigating measures are decided upon, the optimistic scenarios of higher growth and privatisations could become realistic alternatives to the gloomy predictions of failure, default and collapse that are increasingly used to describe present day Greece.

NOTES

- 1 The Medium-Term Fiscal Program (MTFP), approved by Parliament in the last week of June 2011, amid fierce opposition and public clashes.
- 2 The damaging effects of the incumbent's complacency around elections are analysed in Skouras and Christodoulakis (2011) with a case study on Greece.
- 3 For an extensive discussion of privatisations and reforms in Greece over the period 1990–2008 see Christodoulakis (2011).
- 4 Such as, for example, Ireland, Portugal and Spain and the Baltic countries. For an interesting discussion of the effects of the credit crunch on emerging markets with large current account deficits see Shelburne (2008).
- 5 Similar studies for different periods include, amongst others, Alexopoulou *et al.* (2009), Attinasi *et al.* (2009), and Barrios *et al.* (2009).
- 6 In fact, quite the contrary happened. Responding to the pleas of car dealers who saw their sales shrinking because of recession, the government decided in early 2009 to reduce surcharges on imported luxury vehicles, hence increasing conspicuous consumption in the middle of the crisis.
- 7 Even huge external disparities in the Euro Area went unnoticed from a policy point of view; for example, Blanchard and Giavazzi (2002) were suggesting a benign neglect towards the excessive deficits. For a discussion of the problem see Christodoulakis (2009).
- 8 See for example European Commission (2009). For a discussion on the external imbalances in the Euro Area countries and how they reflect structural shifts between traded and non-traded sectors see Christodoulakis and Sarantidis (2011).
- 9 Details on how spending ballooned in 2009 are given in Christodoulakis (2010).
- 10 The Budget Plan submitted in Autumn 2009 for fiscal year 2010 included new transfers to low-income households and an expansion of public expenditure. No revenues from privatisations were envisaged and, in fact, no privatisation took place whatsoever up to the time of writing this paper.
- 11 It was never explained why the debt management strategy neglected this window of opportunity and instead concentrated on borrowing long and expensive paper. In contrast, Ireland seized the opportunity to borrow short and cheap after the crisis in 2008, creating a credit shield against the risk of going to the markets in adverse conditions.

- 12 This is in contrast to the readiness shown in the cases of Hungary, Latvia and Romania, who were quickly assisted by IMF and European Union funds in 2008 and 2009.
- 13 After the credit crunch in 2008, the ECB invited private banks of member states to obtain low-cost liquidity using sovereign bonds rated A+ or above as collateral securitisation. De Grauwe (2010), commenting on the extension of bonds collateralisation, argued that the decision of the ECB was "... a major contribution ... to reducing the risk of spillovers to other markets".
- 14 In an interesting counterexample, the British Government, responding to similar pressure of post-crisis recession, decided to reduce the VAT rate by two points in 2008, despite looming deficits.
- 15 Mabbet and Schelkle (2010) made a timely point that "...forcing the besieged state to fiscal contraction makes it so much harder, if not impossible to get back on a sustainable path".
- 16 The figure is not yet finalised by Eurostat.
- 17 The same plan was announced by IMF-EU-ECB representatives in February 2011, but it was fiercely rejected by the government. Later, the government adopted a more flexible line before finally accepting the initial plan.
- 18 It is the author's opinion that the probability of achieving a wider domestic consensus is very slim given the increasing tensions among political parties and between the government and the unions.
- 19 According to Bloomberg Businessweek (23 June, 2011), European Commission President Jose Manuel Barroso will urge leaders to help Greece access billions of euros in EU development funds to create jobs and make its businesses more competitive. If only this had come earlier!
- 20 Suppose, for example, that one third of the 3-year EU funds of €15 billion becomes quickly operational, so that an additional amount of €5 billion, or 2.20 per cent of GDP, is allocated to Greece this year. Assuming a public investment multiplier of around 2, back of the envelope calculations suggest a growth increase of 4.40 per cent that would more than compensate for the current -3.80 per cent slump and give a net rate of growth of 0.60 per cent as considered in Scenarios (B2) and (C2).
- 21 Obviously, the reason is that with a debt-output ratio in the range of 1.50, 1 per cent nominal growth causes a reduction equivalent to that effected by privatisations of 1.5 per cent of GDP or around €3.4 billion in current prices.
- 22 In the European Council, 16–17 December 2010, the following decision was made: "In all cases, in order to protect taxpayers' money, and to send a clear message to private creditors that their claims are subordinated to those of the official sector, an ESM loan will enjoy preferred creditor status, junior only to IMF loan" (my emphasis); European Council (2010), COEUR21.
- 23 See, amongst others, Zsolt, Pisani-Ferry and Sapir (2011), and Vehrkamp (2011).
- 24 The literature on if, whether, when and how the Greek debt will be restructured is accumulating daily. One of the most authoritative analyses of the legal aspects of restructuring is written by Gulati and Buchheit (2010). In a sequel paper (Buchheit and Gulati, 2011) the same authors describe how a voluntary extension of maturities can take place.
- 25 In the author's opinion this characterisation requires careful legal support since most of the rating agencies have already stated that even a seemingly voluntary debt roll-up will be considered as a state of default (*Financial Times*, 5 July, 2011).

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Appendix: Determinants of spreads in the Euro Area

The Euro Area sovereign spreads are regressed against fiscal balances, public debt and current account deficits. The sample spans the period 1998Q1 to 2009Q4 so as to include the effects of global crisis but stopping short of the implementation of the bail-out agreement for Greece. Observations are taken for eleven Euro Area countries, namely those that joined EMU in the first phase plus Greece but minus Luxemburg to avoid small-size effects. All variables are expressed as relative to their counterparts in Germany. Results are based on Pool Mean Group estimation (see Pesaran, Shin and Smith, 1999) as shown below.

Two types of equations are estimated. In the first regression (displayed in column 1) the fiscal pressure on spreads is captured by the size of public debt as an indicator of future insolvency. In the second regression (column 2) both the current account and the fiscal deficit are used to express liquidity pressures on spreads. Given the positive correlation between the two deficits, the current account effect on spreads is expected to be somewhat weaker in this case. All three factors are found to be statistically significant and with the correct sign in the long-run relationship. In the short run only public debt exerts a strong effect in raising the spread, while the fiscal deficit is weak relative to the long-run coefficient and with the wrong sign. The current account deficit has no significant effect in the short run.

Table A1

	(1)		(2)	
<i>Long-run coefficients</i>				
Current account deficit	2.160***	(3.328)	1.720**	(2.888)
Public debt	1.345***	(3.749)	1.216***	(3.734)
Fiscal deficit	–		1.571**	(2.821)
<i>Short-run coefficients</i>				
Speed of adjustment	–0.198***	(–10.354)	–0.223***	(–8.029)
Intercept	3.906*	(1.832)	5.567**	(2.406)
Change in public debt	1.510**	(2.731)	1.459**	(2.693)
Change in fiscal deficit	–		–0.256*	(–1.933)
Change in current account deficit	0.136	(1.056)	–0.308	(–0.693)
No. of obs.	378		378	
Log likelihood	–1314.557		–1289.381	

Source: Current account data from IFS. Public debt and deficits from Eurostat, and spreads of 10-year bonds from OECD. Details are available from the author.

Notes: t-statistics are presented in brackets. Three asterisks (***) denote significance at the 1 per cent level, ** denote significance at the 5 per cent level and * denotes significance at the 10 per cent level. Automatic selection of lags is based on Akaike's information criterion with a maximum of two lags.