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The Evolution of the Greek Public Deficit up to 2010

Spyridon D. Repousis
Department of Economics
University of the Peloponnese, Greece
E-mail: spyrep@otenet.gr

Abstract

The fiscal deficit was only one of Greece's financing problems and contributed to the increase of the debt. That said, it was also accompanied by a current account deficit, which indicates that consumption exceeds incomes in both the private and public sectors. The current account deficit led to an increase of the foreign debt to GDP ratio from 40% in 2001 to almost 85% in 2009, while interest payments on Greece's foreign debt kept rising during this period.

Greece's structural weaknesses before and upon accession in the euro zone were pronounced. However, the political leadership made no effort to reverse them, since everyone was under the illusion of sound economic growth. In 1995-2003, growth mainly originated from non-tradable goods and services sectors, since it is estimated that 42% of gross added value is attributed to tradable and 58% to non-tradable, while factor productivity growth was also higher in non-tradable. This does not help improve the current account, but, in contrast, increases demand for tradable goods from abroad. What is needed, in other words, is a real policy for boosting competitiveness

Reducing the fiscal deficit only by increasing taxation just transfers the problem of the government's negative savings rate to the private sector of the economy. What is needed is productivity-enhancing institutional reform, which can also help boost per capita incomes. If Greece's living standard during 1996-2006 were equal to the average living standard in the EU-15, then the average per capita income in Greece would be 15.3% higher. In any case, Greece needs: a) to create a primary budget surplus; b) to restore positive GDP growth; c) to reduce borrowing rates; d) to achieve a current account balance; e) to eliminate the factors that cause the debt and the deficit to rise because of statistical differences and adjustments.

Keywords: Greece, Public deficit
JEL Classification: E62, H3, H62

1. Introduction

A government's total borrowing requirements consist of two parts: the primary deficit, i.e. the excess of expenditures, excluding interest, over revenues, and interest payments. A government that runs a deficit borrows in order to finance it. This creates debt. Moreover, if a government had been running a deficit in previous years, thus amassing debt, the current year's deficit is added to total indebtedness. In addition, interest payments on accumulated debt are an expense, which is also added to the current deficit. The debt-deficit relationship is interactive and is known as the "snowball effect". Just like a snowball grows bigger as it rolls, public debt grows to avalanche proportions because of the existence of deficits.

Debt repayment requires, first the containment of the deficit and, then, its reduction to zero, so that no fresh debt is added to the debt accumulated in previous years. At this point, the economy must move on to the next stage: the creation of a primary surplus in excess of debt interest payments, which will help reduce the debt. However, debt reduction can occur even with zero surpluses or low deficits. This happens because the key figure is not debt in absolute terms, but debt as a percentage of GDP. If GDP grew substantially and debt remained unchanged, then the debt to GDP ratio would decrease. Thus, primary surpluses are no panacea, since, even a small deficit, combined with robust growth, can have beneficial effects in reducing the debt to GDP ratio.

Since 1980, and for many crucial years, the Greek economy diverged from the EU-15 and the members of the OECD (Table 1).

Table 1: Changes (%) in per capita GDP (by decade)

Decade	Greece	EU-15	OECD
1971-1979	4.2	3.0	2.7
1980-1989	0.3	2.0	2.1
1990-1993	-0.5	1.2	1.2
1994-1999	2.1	2.1	2.2
2000-2008	3.7	1.4	1.8

Sources: *OECD*: *Factbook 2009* and *OECD*: *Economic Outlook 2009*.

In 1981-2008, Greece received total "net" community fund inflows of approximately 87.0 billion euros (at current prices for each year of that period), which, however, were not always linked to productivity gains (Bank of Greece, 2010a). Whereas Community funds directly reduced the balance of payments deficit, they indirectly increased it by boosting imports and exacerbating domestic inflationary pressures.

Christodoulakis and Kalyvitis (2000) reviewed the results of Community Support Framework II and concluded that, although Greece's GDP increased during the programme's implementation, this improvement was not sustained.

Thirteen years after Greece's accession to the Economic and Monetary Union, it is evident that the entire venture failed in many ways, since Greece joined hastily, unprepared, and without the infrastructure required for coping with the new economic reality. The opportunities offered by low borrowing rates and Community financing were not fully utilised for securing sustainable growth, while the drop in national savings rates, combined with inflation rates higher than those of other European countries, the loss of competitiveness, and high fiscal deficits revealed the Greek economy's structural weaknesses, rendering it very vulnerable to all forms of economic crisis. The combination of high fiscal deficits with easy and cheap credit boosted domestic consumption, leading to economic growth and an increase in GDP, which was, nonetheless, not sound and sustainable in the long term. As a result, the debt was increasing while in the period 2001-2008 the real trade-weighted exchange rate, based on unit labour costs, was 17.5% higher than in the rest of the euro zone (Bank of Greece, 2010β).

2. The Features of the Fiscal Deficit

The government budget was systematically in deficit, featuring primary deficits, which rendered it unsustainable, since Greece had to keep on borrowing in order to meet its debt obligations (repayment of at least the interest) and cover its primary expenditures.

The problems of the Greek economy were known long ago. Makrydakis et al. (1999), collected data on the Greek economy during the period 1958-1995, and demonstrated that the fiscal deficit was unsustainable, while Katrakilidis and Tabakis (2006) concluded that in 1956-2000 Greece's fiscal deficit was weakly sustainable.

High deficits and debt build-up are linked with policy mistakes. The economic policy's failure to reverse the drop in national savings rates was equally responsible for the Greek crisis as was the fiscal deficit. From 2000 to 2008, Greece saw an increase in investment, along with declining private savings and persistently negative public savings rates, owing to the growing consumption and debt obligations of both the state and the households, while, in contrast, the net savings rates remained positive in the business sector until 2009, especially in regard to banks and shipping enterprises (Anastasatos, 2011). In Greece, private debt increased by 217.5% (Constancio, 2013).

In the run-up to joining the euro, emphasis was given on meeting the Maastricht criteria, i.e. on bringing the fiscal deficit down to 3% of GDP, containing inflation, and reducing the debt to GDP ratio (Simitis, 2005).

The structural reforms that were implemented concerned compliance with the "Lisbon agenda" and the preparations for the 2004 Olympic Games However, the policy of investing in infrastructures and projects of questionable growth potential soon lost its momentum, while the end of the stock market euphoria of 1999 led to the weakening of public finances (Stasinopoulos, 2011).

The expansion of the public sector since 1980, was the main cause of the fiscal deficits. In 1970, public expenditures, which accounted for almost 25% of GDP, were almost equal to public revenues; however, they rose substantially since then, culminating in the year 2000, at 47% of GDP.

Of equal importance is the imbalance in the public revenues side, as well as the failure to rationalise the government's management of, and response to, structural problems. As pointed out (Argitis, 2012), the primary surpluses generated by Greece in the 1990s did not result from a decrease in expenditures, but from an increase in public revenues. The bulk of revenues always came from indirect taxation, owing to the state's inability to collect direct taxes and crack down on tax evasion and corruption.

3. Why Did Greece Amass Fiscal Deficits? A Brief History

Greece's adjustment began very late, after 1997, in a bid to meet the Maastricht nominal convergence criteria without creating the appropriate infrastructure, with an overvalued drachma that caused a permanent competitive disadvantage, and through the use of creative accounting (Kotios, 2011).

In 2001, fiscal adjustment was based "as in previous years, more on the increase in revenue than on the containment of expenditure." (Bank of Greece, 2001, p. 179). Although government budget revenues increased by 11.4% in 1999 and 10.0% in 2000, the containment of expenditures mainly came from the reduction of interest payments. Ordinary budget revenues had started falling behind in 2001, a crucial year for Greece because of the country's accession to the euro zone. This shortfall was 73.7% offset by one-off revenues amounting to 822 million euros (such as revenues from the granting of third generation mobile telephony licenses).

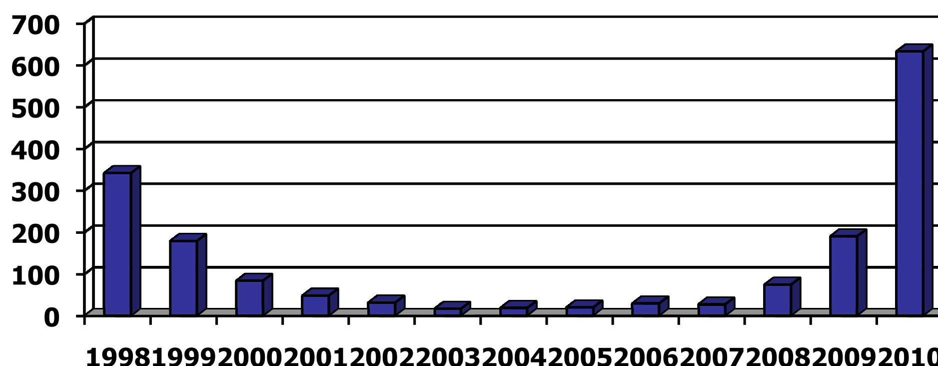
The shortfall mainly concerned "taxation of corporate income, stock exchange transactions, income from bond and deposit interest, as well as the special consumption tax on liquid fuel" (Bank of Greece, 2002, p. 186-187). Finally, the *Annual Report* of the Bank of Greece states that, in that year, the Greek government used new financial products which, according to the Eurostat regulations then in force, were not included in public debt, while the average maturity of new loans taken in 2001 was estimated at approximately 9 years. Moreover, as mentioned in the BoG *Annual Report 2001*, data from the General Accounting Office of the State show that, in that year, "advance purchases of debt worth €6 billion were made, which were mainly financed by the securitisation of future revenue and the issue of privatisation certificates" (Bank of Greece, 2002, p. 199).

After Eurostat revised and completed the definitions of the European System of Accounts (EESA 95) in June 2002, both the deficit and the debt were revised. As a result of the revision of general government deficits from the year 2000 onwards, the small surpluses of 2001 and 2002 turned into deficits slightly above 1% of GDP, while the largest debt revisions concerned the years 2000 and 2001, owing to the use of new financial products.

The revision of deficit data mainly consisted of the addition to expenditures of the largest part of capital injections to public enterprises, as well as loan guarantees by the state to public enterprises. Before the revision, capital injections, which were carried out concurrently with rights issues and the transfer of new shares to the government, were treated as financial transactions and recorded in the public debt, instead of the deficit.

In 2002, there was a major overrun in the primary expenditures of the ordinary budget (by 1.112 billion euros), combined with a large shortfall in the revenues of the public investment budget, which was covered through a major cut (20.4%) in public investment spending and the collection of extraordinary and non-anticipated revenues of 1.061 billion euros from two "settlements" of pending tax cases. Ordinary budget expenditure overruns mostly had to do with primary spending and concerned the hiring of teachers, medical staff, coastguard and police officers, and prefectural government employees, the payment of an additional monthly benefit to a large number of civil servants, and the payment of a "normalisation allowance" to pensioners. At the same time, interest payments were down for a second consecutive year, thanks to the drop in the government's borrowing rates, which approached those of Germany, as shown in Figure 1 below. The average annual yield of Greek ten-year government bonds was only 31.52 basis points higher than the yield of the ten-year Bund in 2003 and 16.74 bps in 16.74 (in 2010 the spread stood at 633 basis points). Moreover, the average weighted cost of borrowing was constantly decreasing, while lending maturities increased.

Figure 1: Average annual spread in the yields between ten-year German and Greek government bonds, 1998-2010



Source: Hellenic Bank Association, 2014.

Fiscal data were revised again in February 2003, as part of the Excessive Deficit Procedure. Although in 2003 the Greek economy showed the highest growth rate (4.02%) in the entire European Union, the "fiscal stance eased considerably", as the deficit rose from 1.43% of GDP in 2002 to 2.95% in 2003 (Bank of Greece. 2004, p. 203). This ease was not due to cyclical factors, as in the rest of the EU, and reflected, on one hand, extraordinary expenditures for the preparation of the Olympic Games, which in 2003 stood at 1.2% of GDP and, on the other hand, serious government primary spending overruns and revenue shortfalls.

Borrowing requirements rose to 3.85% of GDP, owing to a year-on-year increase of the general government's cash deficit by 1.9 percentage points of GDP. Although the Update of the Stability and Growth Programme 2002-2006 (Ministry of Finance, 2002) stated that the key feature of fiscal policy for the year 2003 would be the containment of public expenditures and the prevention of frequent overruns, the 2003 deficit overshot the budget objective by 4.493 billion euros or 2.9% of GDP. Expenditure was once again crucially affected by the hiring of professional soldiers, coast guard officers, medical staff and secondary education teachers, as well as the granting of pay rises to armed and securities forces personnel, and the substantial increase in the number of pensioners without a commensurate increase in the number of active employees.

In other words, although the conditions prevailing in previous years were very conducive to reducing the deficit and the debt, the actual debt reduction was small, reflecting the central government's assumption of further liabilities or the realisation of expenses which, despite not being included in the fiscal deficit, imposed a charge on the public debt ("deficit-debt adjustment"), thus implying "among other things, that fiscal policy was more expansionary" (Bank of Greece, 2004, p. 38).

The "deficit-debt adjustment" includes expenditures or liabilities that, despite not affecting the deficit, increase the debt, as well as proceeds (e.g. from privatisations) that do not affect the deficit, albeit reduce the debt.

In May 2004 the Excessive Deficit Procedure was activated, while the deficit expanded because of an increase in the primary expenditures of the ordinary budget, mainly in the categories of wages and pensions, subsidies, payments to third parties and tax rebates. Based on the updated data from the "fiscal inventory" exercise, and mainly as a result of substantially growing fiscal imbalances, the ECOFIN council called Greece to reduce its deficit below 3% of GDP by 2006, through the strict implementation of the budget for 2005 and the implementation of permanent adjustment measures in 2006, in order to bring the deficit down by at least 0.6 percentage points of GDP.

Greece's borrowing spreads (the differential between Greek and German government bond rates) were then much lower than those expected on the basis of the Greek economy's fundamentals in late 2004 and by mid-2005, and much higher since May 2010 (Gibson et al., 2012). This fact demonstrates the failure of both the European Central Bank and the European Union's Council of Ministers to set terms of effective and timely economic governance, as well as limits on imbalance-inducing fiscal policies (Featherstone, 2011). This failure of European authorities to respond to the obvious fundamental problems of the Greek economy before the outbreak of the crisis, pointed to major errors in the design of European policy, which had nothing to do with the so-called "Greek statistics" (Katsimi & Moutos, 2010).

In 2005 the general government deficit was reduced and, "[a]t the same time, a primary surplus of 0.5% of GDP was generated ... despite the deceleration in economic growth and the shortfall in revenue" (Bank of Greece, 2006, p. 43). The reduction of the deficit was due to a drop in investment expenditures and the containment of current budget expenditures.

Although the necessary conditions for reducing the debt were present during the ten-years to 2005, including substantial GDP growth, a decrease in government borrowing rates, a general government primary surplus (ranging from 4% to 5% per year on a national accounting basis during the five-years 1996-2000), as well as privatisation revenues, Greece did not take advantage of them in order to achieve faster debt reduction. In 2007, Greece finally met the conditions and exited the Excessive Deficit Procedure.

In 2006, fiscal policy remained restrictive for a second consecutive year. Thus, Greece met the deficit reduction objective. Deficit reduction was primarily due to the improvement of revenues and the containment of ordinary budget expenditures, thus contributing to a marked reduction of public debt.

In 2007, the general government deficit increased on a national accounting basis, as a result of certain extraordinary factors valued at a total of 2.405 billion euros, such as the payment of backdate contributions to the Community budget following the revision of past GDP figures; the cost incurred because of the devastating wildfires of the summer of 2007; the cost of holding the parliamentary elections; and the settlement of the state's claims on, and liabilities to, Olympic Airways. That said, the deficit was also positively affected by extraordinary receipts from the EU's Structural Funds. Interest payments rose to 9.791 billion euros, because of the increase in the cost of new government borrowing from 3.2% in 2005 to 4.4% in 2007 (Bank of Greece, 2008, p. 110).

Following the revision of Greece's statistics, as submitted to Eurostat on 21/10/2009, the deficit rose to 3.6% of GDP in 2007, 7.7% in 2008 and 12.9% in 2009 (Bank of Greece, 2010a, p. 25). In April 2009, the Excessive Deficit Procedure was initiated anew. The increase of the deficit in 2008 was due to the adverse effect of the international financial crisis, as well as to a shortfall of revenues and an overrun of expenditures against budget forecasts.

In 2009, the deficit rose again, while the new statistical data revision brought it to 15.6% of GDP, also affecting the figures for the previous years. The public debt was also revised, because of the "reclassification of public enterprises of the broader public sector into the general government sector ..., the inclusion of swap agreements into public debt ..., the downward revision of GDP for 2009 at current prices ..., other adjustments ... and the recording of the external debt of local authorities" (Bank of Greece, 2011, p. 112).

The argument that the increase in the deficit is, among other things, the result of the first financial sector support programme, which was announced and implemented by the government in 2008, is not corroborated by the evidence. The programme, which was announced in 2008, included the increase of the deposit guarantee from 20,000 to 100,000, with very beneficial effects on both depositor sentiment and the stability of the banking system (Law 3746/2009, which increased the compensation for deposits of the same person held with credit institutions covered by the Hellenic Deposit and Investment Guarantee Fund to 100,000 euros, also increasing for the first time to 30,000 euros the limit of coverage to credit institution clients for the provision of investment services).

Most importantly, however, the support provided to financial institutions during 2009-2011 (in accordance with the provisions of Law 3723/2008 "on the enhancement of the economy's liquidity in response to the impact of the international financial crisis") had a positive impact on the general government balance, since the accrued fees resulting from interbank lending and corporate loan guarantees, as well as the proceeds from the banks' preferred stock exceeded accrued expenses by 373 million euros in 2009, 960 million euros in 2010, and 622 million euros in 2011 (Hellenic Statistical Authority, Press release, 11/10/2013). In contrast to the years 2009-2011, support expenditure exceeded revenues by 5.495 billion euros in 2012. In other words, the support provided to financial institutions had a positive effect in 2009, as it reduced the general government deficit.

Professor Zoe Georganta, former Board member of ELSTAT, alleged that the 2009 deficit was fraudulently inflated by 27.914 billion euros, through the reclassification of 17 public utility corporations from the private to the general government sector; the addition of public hospital obligations to medical equipment suppliers, which should have first been reviewed by the Court of Auditors; the inclusion of 2001 swap agreements to the 2009 deficit; and the inclusion of the solidarity allowance granted by means of law 3808/2009 (Georganta, 2012).

Swap operations were being carried out since the summer of 2001, leading to the further reduction of debt denominated in non-euro area currencies. Thus, "foreign" debt was reduced from 33.6 billion euros in 2000 to 8.5 billion euros in 2001 and 4.7 billion euros in 2002. Foreign exchange risk was substantially mitigated, but, at the same time, the internal debt rose from 95.5 billion euros in 2000 to 131.5 billion euros in 2001 and 143.2 billion euros in 2002 (Bank of Greece, 2003, pp. 233-235).

Eurostat had denied knowledge of the currency swap agreement between Greece and Goldman Sachs, but in 2010 the Chairman of Goldman Sachs, Gerald Corrigan, told a House of Commons Treasury Select Committee that the firm had first consulted with Eurostat "and there was no indication they were not in line with standards at the time" (*Risk Magazine*, 22/2/2010).

The Hellenic Parliament's commission of inquiry that investigated the case of the 2009 fiscal deficit did not detect any artificial inflation of the deficit by the political leadership of the Ministry of Finance that took office following the October 2009 election, nor any methodological errors. Remember, though, that Greece had officially been under the Excessive Deficit Procedure since April 2009 and unofficially since late 2008, when the European Commission completed its autumn forecasts (Manesiotis, 2013).

The European Union was aware of Greece's fiscal problem. In July 2009, the European Commission reported that the execution of the Greek budget had diverged from the annual fiscal objectives and if this divergence persisted, the general government deficit would rise above 10% of GDP.

Given the risks the Greek economy was facing, effective fiscal measures should have been taken since 2009. However, public debate was dominated by vote-seeking statements like “There is money!”, while the former managing director of the International Monetary Fund (IMF), Dominique Strauss-Kahn, interviewed as part of a documentary on his life, broadcasted by France’s Canal+ TV channel on March 3, 2011, said that George Papandreou had been long ago discussing the possibility of IMF assistance to Greece, but when he became prime minister, he passed Law 3808/2009, granting extraordinary social solidarity assistance, which burdened the budget deficit by more than 1 billion euros for the years 2009-2010. These were controversial actions, with disastrous consequences for the country.

The new government that took office in October 2009 needed to realise the gravity of the situation and feel —to quote Kotter (1995)— a “sense of urgency” that would urge it to move on its own, and without any complacency, with the necessary structural reforms of the Greek economy. After all, in May 2010 the former President of the European Central Bank, Jean-Claude Trichet, said that “The Greek government took too long to acknowledge the extent of the problem and take the necessary measures” (*Der Spiegel* 13/5/2010).

According to the IMF report on Greece (IMF, 2010, p. 127), Greece’s total public debt at the end of 2009, shortly before the country announced its entry into the financial assistance mechanism of the ECB, the IMF and the EU, stood at 115% of GDP, with almost 80% owed to external creditors. Thirty six percent of the total public debt was held by French banks, 21% by German banks, 32% by other European banks and 11% by non-European banks.

From 2002, i.e. the first full year following the adoption of the euro, to 2012 Greece made interest and principal payments of 355.309 billion euros (Table 2). In other words, in a period of 11 years Greece needed the GDP of almost 1.5 years to service its public debt, which, anyway, kept on rising because of the deficits.

In 2011, interest payments stood at 7.8% of the country’s GDP, accounting for 29.9% of its revenues. Total interest and principal payments for the year 2011 accounted for 21.57% of GDP and 83.4% of revenues. In particular, the amount of revenues required for servicing interest and principal payments was huge. Although the amount of interest and principal payments was reduced, total revenues also decreased, leading to a slight drop in the above ratio for the year 2012 and imposing a major constraint on economic policy-making (Table 2).

Table 2: Key aggregates of the Greek economy (in million euros), 2002-2012

Aggregates	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012 (estimate)**	**TOTAL**
Debt amortisation	20,280	20,763	18,444	20,379	16,589	22,195	26,246	29,135	19,549	28,847	12,860	**235,287**
Interest	8,535	9,208	9,283	9,616	9,441	9,657	11,134	12,184	12,977	16,130	11,735	**119,900**
Additional payments	59	70	72	71	56	71	72	141	246	218	565	
Total	**28,874**	**30,041**	**27,799**	**30,066**	**26,086**	**31,923**	**37,452**	**41,460**	**32,772**	**45,195**	**25,160**	
	Interest as % of GDP						4.80%	5.30%	6%	7.80%	6%	
	Revenues							50,586	53,929	53,932		
	Expenditure							84,213	76,212	76,705		
	Government budget balance							-33,627	-22,283	-22,773		
	Government budget primary balance							-21,302	-9,060	-6,425		
	GDP (at current prices)								222,151	208,532		

Sources: Ministry of Finance, 2012, pp. 131-133; and Bank of Greece, 2013, p. 131 and 141; 2012, p. 113.

4. Conclusions and Policy Proposals

Although deficits are, in general, considered to be effective in boosting aggregate demand in the short term, they have rather negative effects in the long term, because they set into motion the crowding out effect and the forces of the Ricardian equivalence principle: in the first case, the private investments that can help the economy exit the crisis are crowed out, while, in the second case, savings are increased in anticipation of higher taxes aimed at the medium-term repayment of the debt (Kollintzas & Psalidopoulos, 2009). The Keynesian "multiplier" ceases to work as expected, since it has been shown by international studies that a steady increase in public expenditure by 1% of GDP eventually adds only 0.44% to GDP (Cogan et al., 2009; Cwik & Wieland, 2010).

In 2000-2001, the public sector deficit fell below 3% of GDP (before the revisions), which was the fiscal criterion for euro zone membership, while immediately after accession fiscal policy turned expansionary, causing the deficit to increase.

Whereas the combination of primary surpluses, high GDP growth rates, and reduced government borrowing rates initially had a positive effect, by slightly reducing the debt, deficit-debt adjustments led to an increase in debt obligations.

The fiscal deficit was only one of Greece's financing problems and contributed to the increase of the debt. That said, it was also accompanied by a current account deficit, which indicates that consumption exceeds incomes in both the private and public sectors. The current account deficit led to an increase of the foreign debt to GDP ratio from 40% in 2001 to almost 85% in 2009, while interest payments on Greece's foreign debt kept rising during this period (Bank of Greece, 2010b).

The shortfall in savings (deficit) in the public and private sectors was, inevitably, reflected on current account deficits and was dealt with through the inflow of funds from abroad, leading to the accumulation of external debt. In order to reduce the deficit, fiscal adjustment must be based on the permanent reduction of consumer spending and the improvement of the government's efficiency, helping increase the savings to GDP ratio.

Reducing the fiscal deficit only by increasing taxation just transfers the problem of the government's negative savings rate to the private sector of the economy. What is needed is productivity-enhancing institutional reform, which can also help boost per capita incomes. If Greece's living standard during 1996-2006 were equal to the average living standard in the EU-15, then the average per capita income in Greece would be 15.3% higher (Bank of Greece, 2010b).

Greece's structural weaknesses before and upon accession in the euro zone were pronounced. However, the political leadership made no effort to reverse them, since everyone was under the illusion of sound economic growth. In 1995-2003, growth mainly originated from non-tradable goods and services sectors, since it is estimated that 42% of gross added value is attributed to tradable and 58% to non-tradable, while factor productivity growth was also higher in non-tradable (Bank of Greece, 2010b). This does not help improve the current account, but, in contrast, increases demand for tradable goods from abroad. What is needed, in other words, is a real policy for boosting competitiveness and exports, mainly of tradable goods and services.

The IMF report on Greece, in June 2013 (IMF, 2013, p. 23) says that "Greece's debt is projected to remain high well into the next decade." The debt reduction strategy should rely on: a) economic growth, which will help reduce the debt to GDP ratio by 30 percentage points by 2020; b) privatisations, which will help reduce the debt to GDP ratio by 10 percentage points by 2020; c) fiscal adjustment, through the achievement of a primary surplus of 4.5% in 2016.

In any case, Greece needs:

a) to create a primary budget surplus;
b) to restore positive GDP growth;
c) to reduce borrowing rates;
d) to achieve a current account balance;
e) to eliminate the factors that cause the debt and the deficit to rise because of statistical differences and adjustments.

References

[1] Anastasatos A. (2011), "The external imbalance of the Greek economy — Causes, features, and adjustment scenaria" (in Greek), in Hellenic Bank Association (eds.) *The Global Crisis, the Eurozone Crisis and the Greek Financial System* (in Greek), Athens, HBA, pp. 377-397.

[2] Argitis G., (2012), *Bankruptcy and Economic Crisis* (in Greek), Athens: Alexandria Publications.

[3] Bank of Greece (2001), *Governor's Annual Report 2000*, Athens, BoG.

[4] Bank of Greece (2002), *Governor's Annual Report 2001*, Athens, BoG.

[5] Bank of Greece (2003), *Governor's Annual Report 2002*, Athens, BoG.

[6] Bank of Greece (2004), *Governor's Annual Report 2003*, Athens, BoG.

[7] Bank of Greece (2006), *Governor's Annual Report 2005*, Athens, BoG.

[8] Bank of Greece (2008), *Governor's Annual Report 2007*, Athens, BoG.

[9] Bank of Greece (2010a), *Governor's Annual Report 2009*, Athens, BoG.

[10] Bank of Greece (2010b), *The Greek Current Account: Causes of imbalances and policy proposals* (in Greek), collective volume, Athens, June 2010.

[11] Bank of Greece (2011), *Governor's Annual Report 2010*, Athens, BoG.

[12] Bank of Greece (2012), *Governor's Annual Report 2011*, Athens, BoG.

[13] Bank of Greece (2013), *Governor's Annual Report 2012*, Athens, BoG.

[14] Christodoulakis, N., and Kalyvitis, S. (2000), "The Effects of the Second Community Support Framework 1994-1999 on the Greek Economy". *Journal of Policy Modelling*, vol. 22, no 5, pp. 611-624.

[15] Cogan, J., Cwik, T., Taylor, J., and Wieland, V. (2009), *New Keynesian versus Old Keynesian Government Spending Multipliers* (Working Paper Series, no 1090). Cambridge (MA), National Bureau of Economic Research.

[16] Constancio, V. (2013), "The European Crisis and the Role of the Financial System" (Special Conference Paper, presented at the Conference *The Crisis in the Euro Area*, Athens, 23-24 May 2013). Athens, Bank of Greece.

[17] Cwik, T., and Wieland, V. (2010), *Keynesian Government Spending Multipliers and Spillovers in the Euro Area* (Working Paper Series, no 1267). Frankfurt, European Central Bank.

[18] *Der Spiegel* (13/5/2010), "European Central Bank President Jean-Claude Trichet: A 'Quantum Leap' in Governance of the Euro Zone Is Needed". Available at http://www.spiegel.de/international/europe/european-central-bank-president-jean-claude--trichet-a-quantum-leap-in-governance-of-the-euro-zone-is-needed--a--694960--2.html.

[19] ELSTAT (2013), Press release 11/10/2013 (in Greek), Athens: Hellenic Statistical Authority.

[20] Featherstone, K. (2011), "The Greek Sovereign Debt Crisis and EMU: A Failing State in a Skewed Regime". *Journal of Common Market Studies*, vol. 49, no 2, pp. 193-217.

[21] General Accounting Office (2012), "Public debt bulleting - December 2012" (in Greek), Athens: Ministry of Finance.

[22] Georganta, Z. (2012), "The fraudulent inflation of the 2009 deficit by 9.7 billion euros through hospital obligations, the 2001 SWAP and the 'solidarity' allowance." At http://zoe-georganta.co.uk/wp-content/uploads/2012/09/Illegal-swelling-hospitals-SWAP.pdf, last accessed on: 22/6/2014.

[23] Gibson, H., Hall, S., and Tavlas, G. (2012), "The Greek Financial Crisis: Growing Imbalances and Sovereign Spreads". *Journal of International Money and Finance*, vol. 31, no 3, pp. 498-516.

[24] Hellenic Bank Association (2014), Table: "Average annual spread between the Greek 10-year bond and the German reference 10-year bond" (in Greek), Available at http://www.hba.gr/epitokia/omologa.asp.

[25] IMF (2010), *Greece: Staff Report on Request for Stand-by Arrangement* (Country Report no 10/110). Washington, International Monetary Fund.

[26] IMF (2013), *Greece: 2013 Article IV Consultation* (Country Report no 13/154). Washington, International Monetary Fund.
[27] Katrakilidis, C., and Tabakis, N. (2006), "Greek Budget Deficits, Structural Breaks and the Concept of Sustainability: New Econometric Evidence". *Economic and Business Review for Central and South-Eastern Europe*, vol. 8, no 3, pp. 263-278.
[28] Katsimi, M., and Moutos, T. (2010), "EMU and the Greek Crisis: The Political-Economic Perspective". *European Journal of Political Economy,* vol. 26, no 4, pp. 568-576.
[29] Kollintzas T. and Psalidopoulos M. (2009), "The crises of 1929 and 2008 and the policies for dealing with them" (in Greek), *Economy and Markets* (Eurobank, Economic Research & Forecasting Division), vol. IV, No. 8, pp. 2-9.
[30] Kotios A. (2011), "Greece, EMU and Crisis" *(in Greek), Research Papers* (Department of Planning and Regional Development University of Thessaly, School of Engineering), vol. 17, No. 1, pp. 1-20.
[31] Kotter, J. (1995), "Leading Change: Why Transformation Efforts Fail". *Harvard Business Review*, March-April 1995, pp. 59-67.
[32] Law 3723 (2008), "On the enhancement of the economy's liquidity in response to the impact of the international financial crisis and other provisions" (in Greek), *Government Gazette*, issue 250/9.12.2008, part A.
[33] Law 3746 (2009), On the Greek deposit and investment guarantee fund (TEKE), transposition of Directives 2005/14/EC relating to insurance against civil liability for vehicles and 2005/68/EC on reinsurance and other provisions *(in Greek), Government Gazette*, issue 27/16.2.2009, part A.
[34] Law 3808 (2009), "Emergency social solidarity allowance, extraordinary social responsibility contribution by large enterprises and large property holders and other provisions" (in Greek), *Government Gazette*, issue 227/10.12.2009, part A.
[35] Makrydakis, S., Tsavalis, E., and Balfoussias, A. (1999), "Policy Regime Changes and the Long-Run Sustainability of Fiscal Policy: An Application to Greece". *Economic Modeling*, vol. 16, pp. 71-86.
[36] Manesiotis V (2013), *Is the fiscal multiplier to blame?* (in Greek(, Athens: Kerkyra – Economia Publishing.
[37] Ministry of Finance (2002), *Revised Stability and Growth Programme 2002-2006* (in Greek), Athens: Ministry of Economy and Finance.
[38] Ministry of Finance (2012), *Budget Proposal 2013*, Athens: Ministry of Finance.
[39] OECD (2009), *Economic Outlook 2009*, no 1 & 2. Paris, OECD Publishing.
[40] OECD (2010), *Factbook 2009*. Paris, OECD Publishing.
[41] Public Debt Management Agency (2013), Table: "Weighted average cost/maturity of annual funding", Available at http://www.pdma.gr/index.php/en/public-debt-strategy/public-debt/historical-characteristics/weighted-average-cost-maturity-of-annual-funding, last accessed on: 12/7/2014.
[42] *Risk Magazine* (22/2/2010), "Corrigan: Goldman Sachs Consulted Eurostat on Greece Currency Swaps". Available at http://www.risk.net/risk-magazine/news/-1593054/corrigan-goldman-sachs-consulted-eurostat-greece-currency-swaps.
[43] Simitis K. (2005), *Policy for a Creative Greece, 1996-2004* (in Greece), Athens: Polis Publications.
[44] Stasinopoulos G., (2011), "Economic Policy Crisis in Greece, 1991-2010" (in Greek), in Political Economy Society (eds.), *Economic Crisis and Greece*, Athens: Gutenberg Publications, pp. 159-173.