Hellenic Republic
Ministry of Finance

Update of the Hellenic Stability and Growth Programme 2011-2014

Athens, July 2011

Contents

1 Overall Policy Framework

Since the beginning of 2010, the Greek economy is going through a transformation process, rectifying its internal and external imbalances and changing its growth model from one based mainly on consumption to one based on investment and exports. This transformation is necessary as the growth path that was followed after the entry into the European Monetary Union (EMU) was not sustainable and, despite the strong growth performance of the last one and a half decade, the country was led to a sovereign debt crisis in 2009.

The fast growth of the recent past was based on unsustainable drivers: a domestic credit-boosted demand boom (particularly in consumption), high real wage increases beyond productivity gains, and pro-cyclical fiscal policies. Upon entering the euro area, access to low-cost credit boosted demand without introducing the needed complementary changes on the supply side of the economy. Supply side improvements through structural reforms to improve competitiveness are particularly important after joining EMU, because of effectively fixed exchange rates. Instead, persistent expansionary fiscal policies exaggerated the problem.

The deep-rooted vulnerabilities of the Greek economy at the end of 2009 included: rapidly deteriorating fiscal indicators (general government deficit at 15.4% of GDP and public debt at 127.1% of GDP), a current account deficit at 11% of GDP (reduced from a level of 14.7% in 2008 due to the financial crisis), a net international investment position at 84.9% of GDP, and a record low saving rate of 2.2% (total economy).

The reversal of these imbalances and the placement of the economy on a sustainable growth path are attempted through the Economic Adjustment Program that was adopted in May 2010. More specifically, this comprehensive multi-year adjustment program is currently underway aiming at: a) front loaded fiscal consolidation to reduce the deficit and to administer public debt on a sustainable trajectory; b) labor market, product market, and business environment reforms to increase competitiveness; c) a fundamental shift in the growth model to one based on productive investment and exports of goods and services.

The radical but necessary change in the Greek economy requires a transitional period during which resources in labor and capital have to be shifted from the public to the private sector, from the non-tradable to the tradable sector, from consumption to investment and from domestic trade to export trade.

An effort is made to distribute the cost of adjustment evenly among social groups and to ensure a fair adjustment burden. These basic principles are depicted in the Medium Term Fiscal Strategy for the period 2011-2015, which has been adopted by the Parliament in June.

2 Economic Outlook

2.1 World Economy – Technical Assumptions

In the aftermath of the recession of the world economy in 2009, economic prospects are gradually improving. Idiosyncratic factors drive the speed of economic recovery, signaling important divergences across regions. Global economic recovery was initially supported by stronger output growth in emerging and developing economies, while economic activity rebounds at a slower pace in advanced economies. In 2010, world output increased by 5.1%, reflecting a 3.0% output growth in advanced economies and 7.4% output growth in emerging economies. Stronger than expected economic rebound in the second half of the year indicated improved financial conditions and investors' confidence concerning the medium term prospects. In the first quarter of 2011, global activity increased on a yearly basis by 4.3%, while leading indicators reflect subdued growth in the second quarter of the year. Financial market conditions are gradually normalizing compared to the past two years owing to the prompt intervention of the Central Banks in many economies, although financial market vulnerabilities are still apparent.

According to the European Commission (2011 Spring Forecasts), global output (excl. EU) is projected to increase by about 4. 5% in 2011 and 2012, coupled with strong world trade growth. Leading indicators also point to an increase of about 1.8% in EU output growth in 2011 and 2012. Inflationary pressures may also arise from a gradual increase in private consumption and a less favorable outlook for oil and commodity prices.

Nevertheless, significant vulnerabilities for a sustained global economic recovery persist. Elevated risks in economies that contribute significantly to the world output, such as Japan, may impede on a quick economic rebound. Furthermore, in the euro area, tight banking credit expansion and enhanced concerns regarding fiscal sustainability are setbacks for lower interest rate spreads, easier funding and stronger investment activity. Other geopolitical factors (such as developments in the Middle East and North Africa (MENA) region) may impose additional downside risks to the inflationary outlook (e.g., through oil prices).

The 2011-2014 Hellenic Stability and Growth Programme is based upon the set of new common external assumptions proposed by the European Commission, which reflect a gradual improvement in the economic and financial conditions with downside risks stemming mostly from higher oil prices.

BOX I: The impact of oil prices on the Greek economy

i. Impact on GDP growth

Greece is heavily dependent on oil and, thus, is more vulnerable to oil shocks than other economies in the E.U. Energy dependency was 72.9 percent in 2008, well above the European average (EU-27: 54.8 percent, source: Eurostat). Imports of oil amount to 25,484 thousand tons of oil equivalent in 2008 or 2.27 tons per inhabitant (Eurostat).

Empirical studies on the relationship between oil prices and economic activity in Greece show a negative elasticity of -0.21. This estimate compares with the following estimates for the EU: a) based on the Commission's macroeconomic model (2005), the effects of a permanent 10 USD increase (17%from 60 USD to 70 USD per barrel) in oil prices were estimated to be -0.27 p.p.. b) In a recent press conference (March 1, 2011), the European Commissioner for Economic and Monetary Affairs stated that a 10% higher than expected increase in oil prices, would have an impact on economic growth of less than -0.1 p.p..

ii. Impact on Consumer price inflation

Taking into account that in Greece:

- The retail price of petrol fuel includes approximately 60% of taxes and duties.
- The retail price of diesel fuel includes approximately 48% of taxes and duties.
- The annual weighted average share of oil prices on the retail price for petrol fuel and diesel fuel (in 2011) will be 27%.
- The updated weights of the basic categories 'petrol fuel' and 'diesel fuel' in the new Consumer Price Index (CPI, 2009=100) are 4.19% and 1.877% respectively.

Thus, a 10 percent increase in oil prices is estimated to have a direct impact of 0.164 p.p. on energy inflation. However, although the oil price pass through in Greece is the highest among euro area countries[2], this is a *ceteris paribus* estimate which cannot prejudge overall inflationary developments (e.g., when aggregate demand feedback is taken into account).

iii. Impact on Budget revenues

Fuel taxes in Greece consist of excise duties (defined in euro per 1000 liters), therefore they do not follow price volatility (with the exception of VAT which calculated on a higher retail price positively affects revenue collection). However, budget revenues are sensitive to fuel demand. According to international literature research for developed countries, a 10% increase in oil prices leads, in the long run, to a fall in fuel demand of 4-10%. Conclusions for the Greek budget cannot be drawn, since the oil price increase has to be permanent, and so far there is no such indication.

[1] *Indicatively, Papapetrou E., "Oil price asymmetric shocks and economic activity: the case of Greece", Bank of Greece (2009).*

[2] *The effect of changes in oil prices on the euro-area and individual member states inflation, has been estimated by the European Commission (Quarterly Report on the Euro Area, Volume 10 No 1, April 2011). In the case of Greece the immediate effect of an EUR 1 rise in the oil price, raises quarterly energy inflation by 0.63 pp, whereas most of the impact affects energy inflation instantaneously. These results are comparable to the yearly impact on total inflation presented in Box I).*

2.2 Cyclical Developments and Current Economic Prospects

The 2008-2009 international economic crisis exposed the long-standing structural weaknesses and enhanced the fiscal and external imbalances of the Greek economy, mainly materializing through the persistence of substantial twin deficits. These deficits are, to a large extent, the result of:

- Persistent inflation differentials with euro area countries resulting to a continuous loss of competitiveness. Factors accounting for inflation differentials include: the higher growth of unit labour costs, inefficient markets, relatively low productivity growth and a limited response of domestic supply to rapidly growing demand. On the other hand, private consumption was fuelled by accelerating credit growth and lower interest rates resulting to a low savings rate in the economy (the ratio of consumption to GDP is one of the highest in the euro area).
- A comparatively large and relatively inefficient public sector, directly affecting the business environment through red-tape, higher administrative burden and traditional "crowding-out" effects.
- The existence of largely inefficient tax collection and fiscal management mechanisms, with the former resulting to extensive tax evasion and the latter causing insufficient control over primary expenditure.

The 2010 ambitious Economic Adjustment Programme focusing on:

(i) a frontloaded fiscal consolidation effort in order to secure debt sustainability

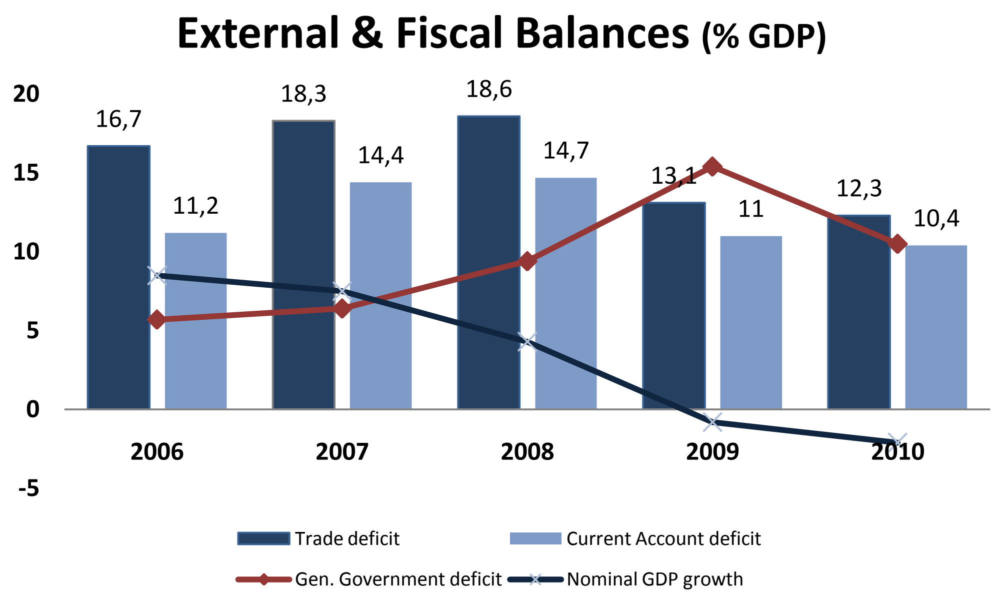
(ii) securing financial sector stability and adequate liquidity in the banking sector

(iii) implementing across the board structural reforms aiming at boosting productivity growth and competitiveness, effectively switching to a different growth model based on investment and exports. This is expected to result to a gradual, though more robust and sustainable recovery of the economic and fiscal performance.

BOX II: Current Account and Fiscal Imbalances: The case of Greece

Since 2005, there is a gradual deterioration in the Greek current account balance, pointing at unsustainable dynamics in the long run. Estimations of the Ministry of Finance, based on IMF methodology, suggest that the Greek current account deficit can be sustainable at less than 6.0% of GDP[1]. However, the current account deficit reached a peak of 14.7% of GDP in 2008, reflecting a widening trade deficit due to high domestic demand growth and high oil prices (given the high oil dependency). Robust credit growth and widening budget deficits owing to counter-cyclical policies, sustained a fairly low national savings rate up until 2009.

The causal relationship between the Greek current account balance and the fiscal balance has been mostly positive, in line with the "twin deficits" hypothesis that budget deficits have an adverse impact on current account dynamics (Chinn and Prasad, 2003[2]), though the effect has weakened (Cheung et al, 2010[3]). Nevertheless, stylized facts for 2009-2010 point to the so-called "twin divergence" hypothesis (Kim and Roubini, 2008) for the Greek case[4]. In 2009, the contraction of GDP coupled with the gradual decline in investment activity and the fall in oil prices, has led to a significant improvement in the current account balance, whereas the budget deficit increased markedly. Moreover, the pronounced fiscal deficit reduction by 5.0 p.p. in 2010 is coupled with a minor improvement in the current account. This can be mostly attributed to a higher deficit in the oil balance compared to 2009, while the public debt servicing component had a moderate impact on the external deficit. The current account, net of public debt interest payments, was 6.7% of GDP in 2010 down from 7.2% in 2009, while the primary current account



deficit, net of the oil balance, was about 3.0% of GDP in 2010 down from 4.0% in 2009.

Given the rebound in world trade and the economic recovery in Greece's main trading partners, future prospects point to a further decline in the current account deficit to be supported by the fiscal consolidation program that is underway, which marks a change in the Greece's economic growth model (i.e., increase in competitiveness and export growth orientation).

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[1] *The finding is robust to the use of alternative IMF methodologies (IMF Working papers WP/06/69 and WP/08/92) and is consistent with other findings in the literature, e.g., Zombanakis et al (2009) (Bank of Greece Working paper No. 98)*

[2] *Chinn, M.D., Prasad, E.S., 2003. Medium-term determinants of current accounts in industrial and developing countries: an empirical exploration. Journal of International Economics 59, 47-76.*

[3] *Cheung et al (2010) OECD Working paper No. 775*

[4] *Kim S. , Roubini N. (2008). Twin deficit or twin divergence? Fiscal policy, current account and real exchange rate in the US. Journal of International Economics 74,362-383*

2.2.1 Recent economic developments

The Greek Economy in 2009

In 2009, real GDP growth turned negative (-2.0%), compared to a 1.0% positive growth in 2008. This development is mainly due to the decrease of gross fixed capital formation (-11.2% compared to -7.5% in 2008), with major components of investment moving on negative ground, and machinery being the most notable example (-21.7%). The latter was already an adverse development undermining technological restructuring - a much needed process in order to accelerate productivity growth. Government consumption growth accelerated substantially (10.3% vs. 1.5% in 2008), directly affecting the borrowing requirements of the Greek economy during a period of increasingly tightening financial markets at the international level. The external sector of the economy contributed positively to growth, with imports and exports both recording significant losses (-20.1% and -18.6% respectively). Export developments can be attributed, among others, to accumulated losses in competitiveness, as the real effective exchange rate (based on CPI) recorded an increase (in the order of 1.6%) for a fourth consecutive year starting from 2006. Although the limited outward orientation of the Greek economy has, initially at least, helped immunize against the financial crisis, developments concerning imports, exports, government consumption and investment have clearly highlighted the deadlock of the previous growth model.

As far as the production side of the economy is concerned, industrial production was down by a substantial 9.4%, with manufacturing production decreasing by 11.2% and all other sub-indices also moving on negative ground (mining and quarrying -11.8%, electricity -4.2% and water supply -3.1%). The production index in construction recorded a decrease by 17.5%, underpinning the decline in investment activity. As a result of shrinking domestic and external demand and sharply falling business expectations (-21.5%), the capacity utilization in industry decreased to 70.5% (compared to 75.9% in 2008).

Regarding price developments, inflation (based on CPI) decelerated to 1.2% (4.2% in 2008), mainly as a result of the contraction in aggregate demand (and, to a lesser extent of supply side factors such as labour market developments leading to significant deceleration of compensation per employee growth). Core inflation, however, was twice headline inflation (2.4%), reflecting other than conjunctural factors (such as persistent inefficiencies of product and services markets). Among the components of CPI, alcoholic beverages and tobacco (+5.3%) and education (+4.1%) recorded the highest increases, while prices for housing and transport declined by 2.7% and 2.5% respectively. The pattern of HICP was identical to that of CPI (+1.3% vs. 4.2% the previous year).

The unemployment rate increased to 9% (7.3% in 2008), with employment recording negative growth (-0.7% vs. +0.2% the previous year) thus reflecting the contraction of economic activity and, possibly, the still relatively high growth rate of compensation per employee (+3.6% in nominal terms and +2.5% in real terms).

Developments in 2010

Regarding 2010, real GDP growth is estimated at -4.5%[1], with private consumption falling by 4.5% recording a particularly strong contraction in the fourth quarter (-8.0% y.o.y.) mainly as a result of developments in employment, disposable income, credit expansion and consumer

[1] Although ELSTAT provisional revised quarterly estimates point to a growth rate in the order of -4.36%.

sentiment. Government consumption is estimated to have decreased by 6.5%, mainly as a result of permanent measures affecting employment and remuneration in the public sector. Gross fixed capital formation moved on very negative ground (-16.5%), as a result of a negative business sentiment, falling capacity utilization and restrained supply of credit.

On the other hand, the contribution of the external sector to GDP change is again estimated to be positive (2.3 p.p.). This development stems from real imports falling significantly (-4.8%) and real exports recording an impressive rebound (+3.8% vs. -20.1% in 2009). The latter is mainly the result of a more favourable external environment, gains in domestic price and cost competitiveness and the fact that most Greek firms already export a part of their output (thus having an existing export base which is easier to expand rather than establish starting from scratch)[2]. Regarding the latter, the real effective exchange rate decreased by 0.5% based on CPI or 3.3% based on the Unit Labour Cost (performance relative to the rest of 35 industrial countries: double export weights). It is a fact, however, that cumulative competitiveness losses since 2000 amount to 18.4% (based on CPI) or 18.8% (performance relative to the rest of 35 industrial countries), thus highlighting restoring competitiveness as one of the central economic policy goals in the medium term.

Regarding the production side of the economy, industrial production was down by 5.8%, with manufacturing production falling by 5%, mining and quarrying by 6.5%, electricity by 9.2% and only water supply increasing marginally by (0.7%). The construction activity index fell sharply by 31.6%, hand in hand with business expectations in construction (-27.4% following a decline of 31.4% in 2009).

Inflation (either based on CPI or HICP) was 4.7% on average reflecting, to a large extent, increases in indirect taxes and excise duties; more specifically, it is estimated that approximately 70% of price increases can be attributed to taxation. It comes as no surprise that the CPI components most affected by increases in taxation recorded the highest rates of growth (alcoholic beverages and tobacco +14.8%, transport +16.2%).

As a result of economic activity falling sharply, employment is estimated to have decreased by 2.1%, thus resulting to an unemployment rate of 11.5% (on a national accounts basis). It is an encouraging sign, however, that developments concerning compensation per employee (-2.8% in nominal terms, -7.2% in real terms) and, as a result, unit labour costs (-0.9% in nominal terms, -5.4% in real terms) could be inducing more favourable dynamics in the labour market, also supported by structural reforms.

Current developments

GDP is projected to start flattening up in 2011 (-3.5%), with recently announced provisional estimates for the first quarter showing an increase in GDP compared to the previous quarter (+0.2%, Q/Q-1). High frequency indicators already available for the current year (such as turnover and new orders in industry and exports) strongly support this estimate. Both private and

[2] Quarterly Report of the Euro area, vol. 9, no 3 (2010).

government consumption are expected to decrease further on a yearly basis (by 4.8% and 8.4% respectively), while gross fixed capital formation is projected at a less steep path (falling by 7.1%). Thus, final domestic demand is expected to decline by 5.8%, again with a negative contribution to GDP growth (-6.4 p.p.).

Developments regarding the external sector of the economy are expected to be driven mainly by a "terms of trade" or competitiveness effect (the real effective exchange rate is expected to remain on a declining path), with exports increasing by 6.4% and imports decreasing further (-4.2%). Employment is also projected to decrease further by 3.2% in 2011, resulting to a higher unemployment rate (14.5%) while inflation is expected to start flattening up. However, in the short-run, price developments in 2011 will be affected by the latest VAT increase in January, international oil prices and the pricing policy of state-owned enterprises aimed at containing borrowing requirements.

Figure 2.1: Value of Exports (on customs basis)

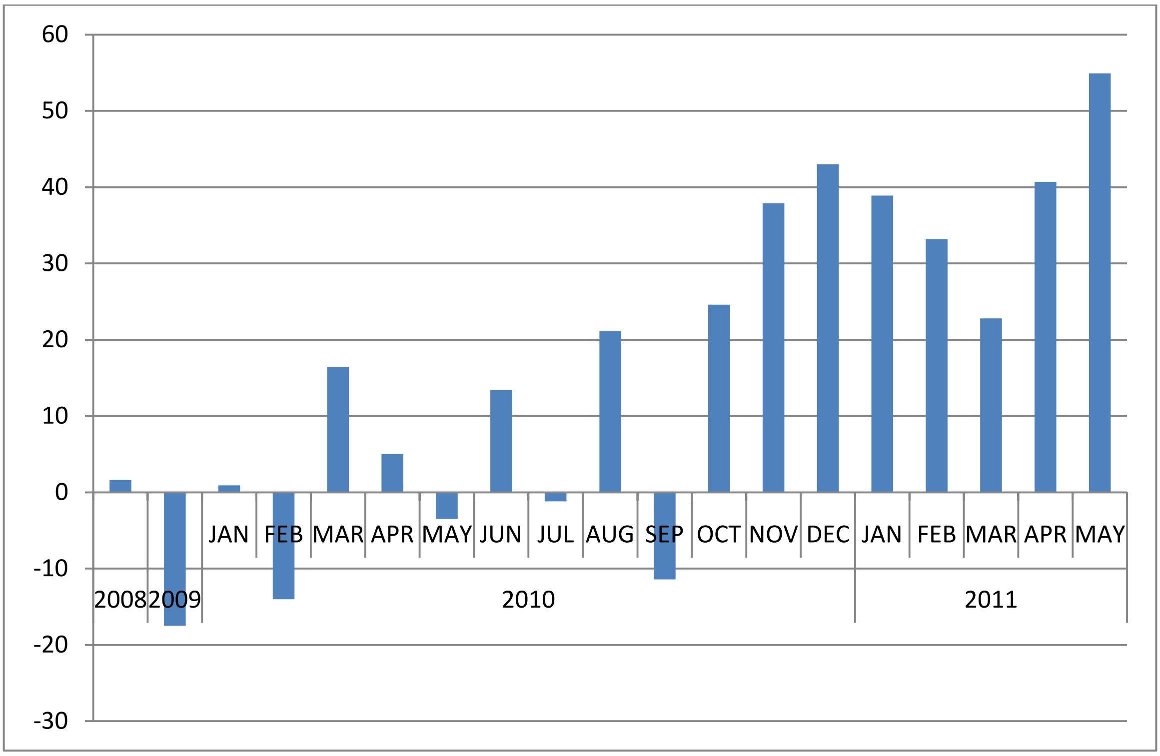


Figure 2.2: Industrial Production Index

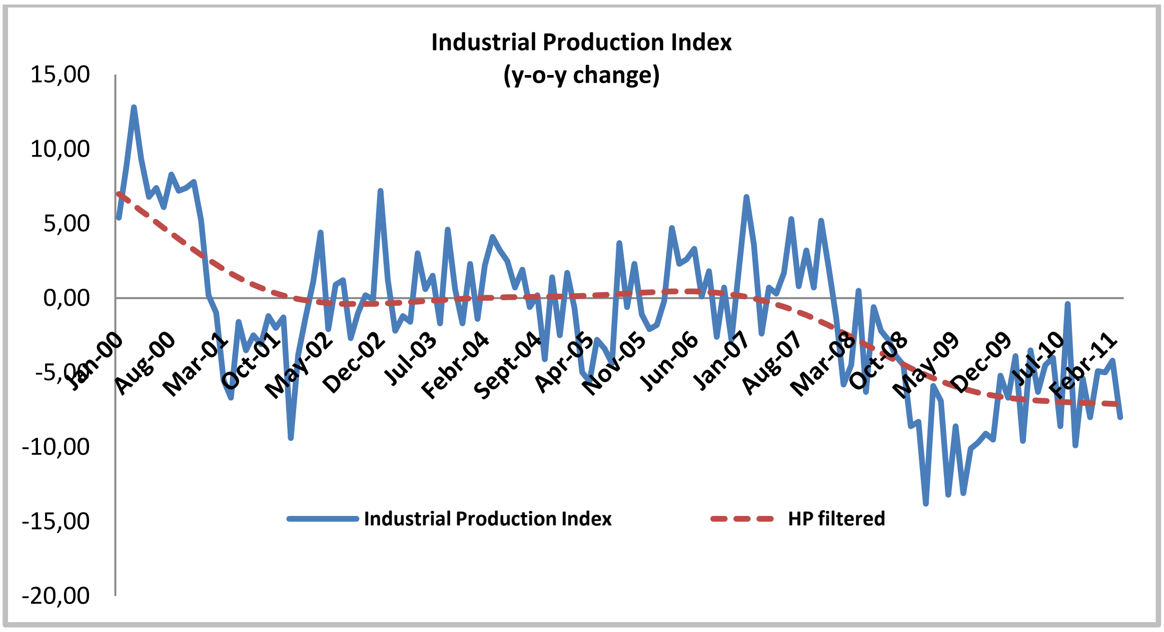
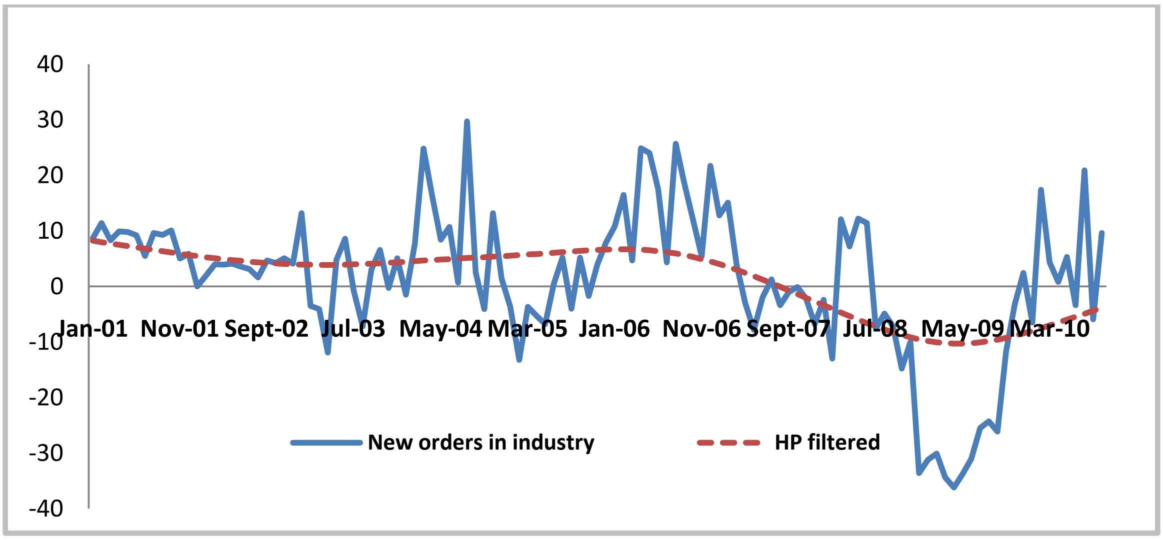
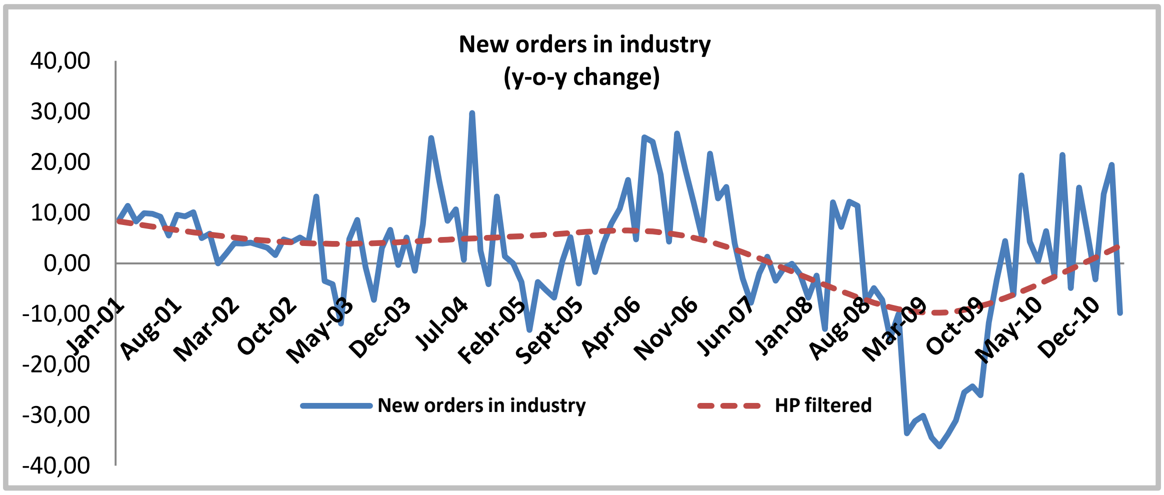


Figure 2.3: New orders in Industry





BOX III: Shipping and tourism: two important growth drivers of the Greek economy

In 2005-2010, the services balance, on a national accounts basis, was on average 7.0% of GDP. Shipping and tourism contribute significantly to GDP growth, thus supporting employment and enhancing the growth prospects of the Greek economy.

In 2010, net receipts from shipping increased by 12.1% compared to a decline of 34.4% in 2009. This rebound reflected both the world trade recovery and the increase in shipping fares. In the 2008-2010 period, net receipts from shipping represented on average about 55% of the services balance.

The merchant fleet under the Greek flag in 2010 had a capacity of more than 43 million gross registered tons (grt), having increased by more than 48% since 2000. In addition, the share of Greek-owned vessels account for 15% of the world fleet's dead weight (dwt), making the Greek-owned fleet one of the largest in the world and the largest maritime carrier in the EU. The prospects for the Greek shipping sector are favorable due to the improved world economic and trade outlook and the foreign financing of the sector (about 75% of the total financing).

Greek Shipping Fleet

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Greek Flag(1) (2) (millions of grt)	33.1	34.3	37.7	39.2	41.4	43.0
Of which:						
Dry Cargo	14.1	14.3	14.6	15.1	14.9	15.9
Tankers	17.2	18.4	21.4	22.3	24.8	25.5
Other	1.8	1.6	1.7	1.8	1.7	1.6
Share of world Fleet (in dwt):						
Greek flag (%)	6.1	5.0	5.4	5.9	5.2	4.6
Greek owned (%).	16.5	16.1	16.5	16.4	15.2	14.9

(1) Source: ELSTAT, Bank of Greece
(2) Data for 2010 is at November 30.

On the other hand, net receipts from tourism declined by 6.8% in 2010 and by 11.0% in 2009, affected by the slowdown in economic activity in 2008-2009. The decline in net receipts from travel services depend mainly on the reduction of the average daily expenditure. In the January – April 2011 period, net receipts increased on a yearly basis by 9.9%, reflecting improved prospects for the tourism sector in 2011. The majority of tourist arrivals come from the EU, especially Germany and the United Kingdom.

The medium term outlook for the tourism sector will be favourably affected by:

- Estimates for buoyant economic growth in EU and in the world economy
- Improved tourism infrastructure since 2004 and continuous facility upgrades
- Increased number of hotels with high classification rating
- Differentiation over alternative types of tourism (e.g., agrotourism, conference tourism)

- Policy measures to improve the competitiveness of the tourism sector (e.g., removal of cabotage restrictions, VAT reduction for hotels)
- New policy programs so as to support the expansion of the tourism period

Foreign visitors & travel receipts

Source: Bank of Greece

Medium-term prospects

The macroeconomic imbalances of the Greek economy are to a great extent attributed to misallocation of resources, between the public and the private sector, between consumption and investment, between tradables and non-tradables and even among different sectors of production.

The reasons of this misallocation are embedded in the size of the public sector, the regulations, restrictions and monopolistic practices of the economy, the prolonged period of low financing costs and easy borrowing, tax evasion and corruption.

The Economic Adjustment Programme currently underway aims at radically addressing these problems through an economic policy mix based on fiscal consolidation and structural reforms. Among the others, the emphasis is placed on marker oriented reforms aimed at

⇒ improving the business environment in order to facilitate private investment (and, even more so, FDI) thus accelerating productivity growth,

⇒ restoring competitiveness and, thus, increasing the outward orientation of the economy,

⇒ opening up product and services markets and enhancing competition, in order to create more investment opportunities and secure lower prices for consumers,

⇒ ensuring conditions for sustainable employment growth.

BOX IV: National Saving and Investment

One of the objectives of the Greek adjustment programme is the establishment of a more sustainable saving-investment relationship. According to the well-known identity for an open economy, the current account deficit is equal to the difference between national saving and national investment (gross capital formation):

$$CA = S - I = S_P + S_G - I$$

where, CA stands for the current account, S stands for saving (with the subscripts P and G referring to private and government saving) and I stands for the sum of private and public investment.

In the 2000-2009 period, there was a gap between private saving and total gross capital formation and, given the negative saving of the general government, this gap was covered by the increase of the current account balance, albeit to unsustainable levels[1].

In 2010, due to the contraction of economic activity, private saving decreased by 3.1 percentage points of GDP compared to 2009. However, the current account deficit improved by 2.2 percentage points of GDP, following an increase in the current saving of the general government by 3.8 percentage points of GDP.

In the medium-term, an increase of private saving is projected with a gradual reduction of the negative saving of the general government and, therefore, a lower external deficit is expected. The current account deficit is forecast to decline from 14.0% of GDP in 2009 to 5.9% in 2014. This development is compatible with expected gains in competitiveness resulting from structural reforms already implemented or planned for the horizon of the program.

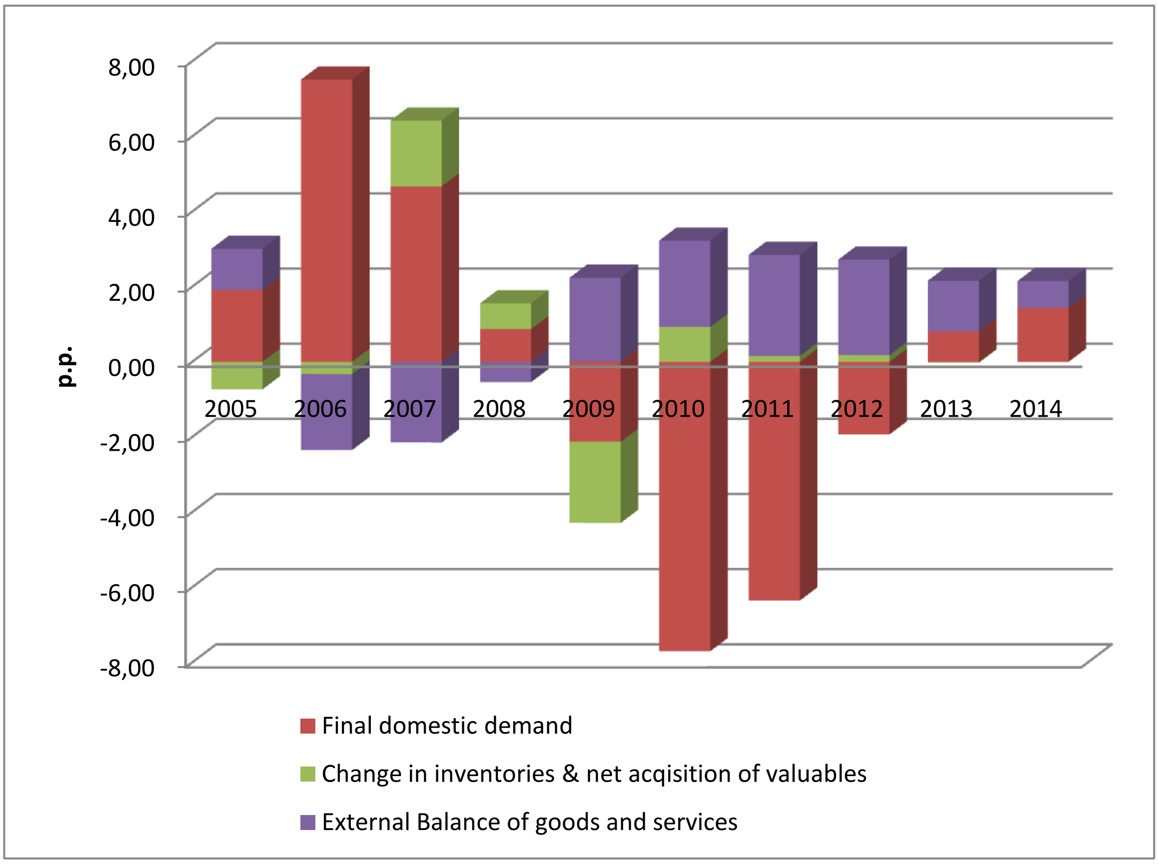
The finance of gross capital formation (% of GDP)

		2006	2009	2010	2011	2014
i.	Gross fixed capital formation	20.9	17.1	14.7	14.0	14.0
ii.	Change in stocks	-0.5	-0.4	0.5	0.9	0.7
iii.	*Total investment*	*20.4*	*16.7*	*15.2*	*14.9*	*147*
iv.	Private saving	11.5	14.8	11.7	10.4	10.8
v.	Saving of general government	-3.8	-12.1	-8.3	-5.6	-2.0
vi.	Current account balance	12.7	14.0	11.8	10.0	5.9
vii.	*Total finance*	*20.4*	*16.7*	*15.2*	*14.9*	*14.7*

[1] *See Box II for an estimate of the sustainability threshold of the CA*

This policy mix describes the principles of a new growth model based on investment and exports, which is expected to ensure conditions for a gradual recovery and sustainable growth in the medium term. As a result of the implementation of this model, macroeconomic prospects are expected to improve in the medium term, enhanced by the aforementioned factors, i.e., improved fiscal performance, structural reforms and more competitive product and labour markets.

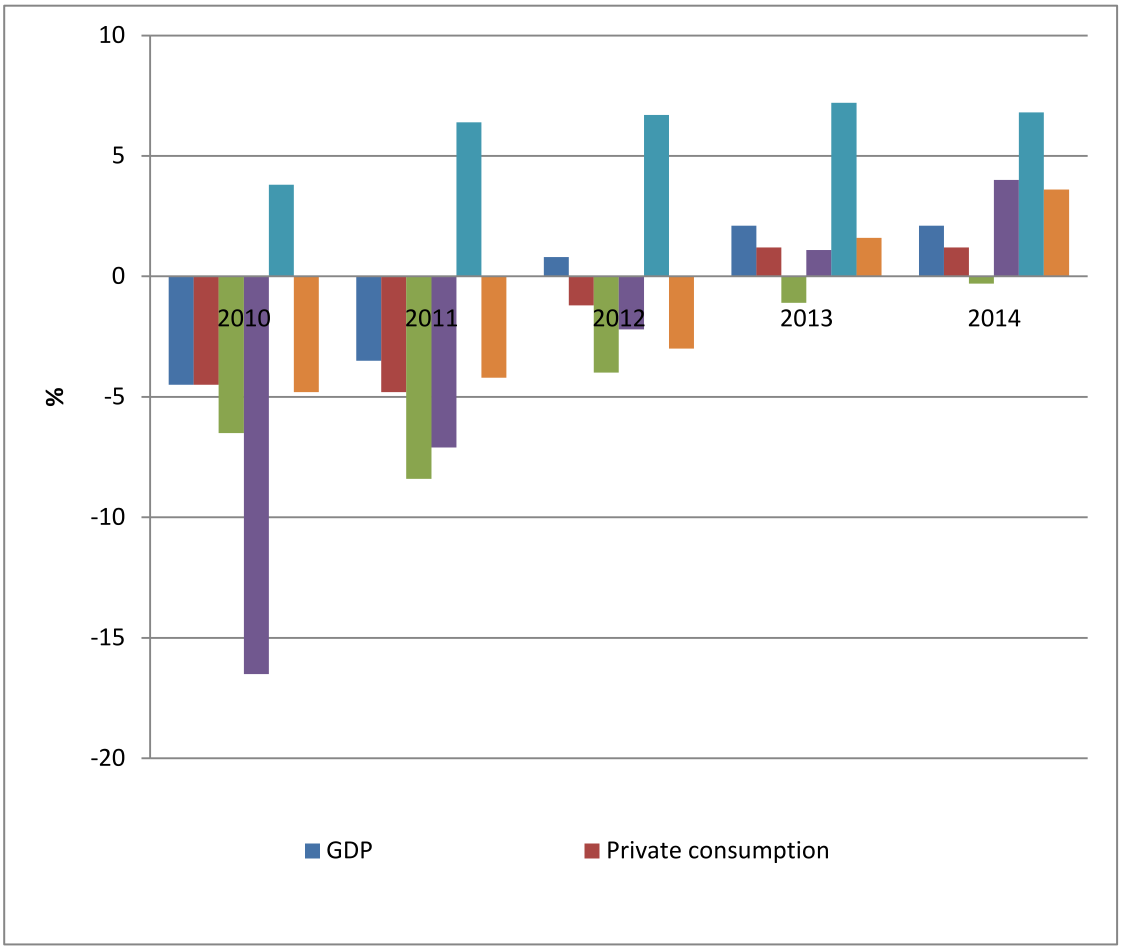
Figure 2.4: Contribution to GDP Growth



Regarding GDP growth following 2011, a positive carry-over is projected for 2012 (resulting to a growth rate with a positive sign, namely 0.8%), with growth gradually accelerating to reach 2.1% in 2014. As a result of the continued fiscal consolidation effort, government consumption is expected to keep declining up until 2014 (-3.4% on average for the 2011 – 2014 period), while growth in private consumption is expected to remain subdued (turning from -4.8% in 2011 to -1.2% in 2012 and gradually accelerating thereafter to reach 1.2% in 2014). Gross fixed capital formation is projected to remain on a gradually recovering path (returning on positive ground in 2013), while the contribution of the external sector is expected to remain positive, on the back of high export growth (6.8% on average during the 2011 – 2014 period) and low import growth (-0.5% on average during the same period and recording positive rates as of 2013).

As for inflation (based on HICP), following the moderation in 2011, lower growth rates are expected from 2012 on (averaging 1.5% over the 2011 – 2014 period). After the short-run tax effect has faded-off, structural reforms affecting competitive conditions in the product and services markets are expected to positively affect price developments, possibly counterbalanced (to a certain extent) by import prices.

Figure 2.5: Medium-term developments in GDP components



Employment is projected to start increasing from 2013 on and to record an average growth rate of -0.5% in the 2011-2014 period. The unemployment rate is expected to reach its peak in 2012 (15.0%), but to start declining steadily up until 2014 (14.0%). Labour market developments are expected to be favourably affected both by relevant reforms implemented and in the pipeline and by wage moderation expected for the whole period up to 2014.

BOX V: Fiscal consolidation and economic performance

Recent research points to the general direction that, although fiscal consolidation (usually) has short-term costs, it could have significant medium – to – long-term benefits. To a large extent building on existing literature, new contributions include:

- The study by Reinhart and Rogoff (2010)[1] shows evidence of a link between growth and debt when debt-to-GDP levels are high. The authors find that the growth impact of public debt is negligible for levels of debt below a threshold of 90 percent of GDP, but above that threshold median growth rates fall by 1 percent, and average growth falls considerably more. So, in the case of Greece, the very high level of debt has initially a negative implication for growth, which implies an urgent need for economic policy to focus on debt consolidation.

- A working paper of the ECB[2], estimating that that the long-run elasticity of private consumption with respect to general government final consumption is negative. In the same paper the view is supported that during a fiscal consolidation episode even a tax raise, could have a positive long-run effect on private consumption. The theoretical underpinning of empirical results is a “Ricardian” expectation of a permanent tax reduction resulting to an increase in permanent income and in private consumption, also generating improved expectations for private investment. An induced wealth effect along the lines of Blanchard (1990) and Sutherland (1997) could also be expected, along with diminishing risk-premia associated with public debt issuance.
- An analysis of the IMF (included in the October 2010 World Economic Outlook[3]) based on the Global Integrated Monetary and Fiscal (GIMF) model stating that over the long term, reducing government debt is likely to raise output, as real interest rates decline and the lower burden of interest payments allows cuts to distortionary taxes.
- A working paper of the IMF[4], also using the aforementioned model with Japan as a case study, proposing the view that the potential long-term benefits of fiscal consolidation are considerable, and that reforms which raise potential growth could support consolidation. Simulations included in the same paper show that the external environment also matters but domestic policies should be a priority.
- A working paper of NBER[5] elaborating the view that in the past even sharp reductions of budget deficits have been accompanied (and immediately followed) by sustained growth rather than recessions (also in the very short run). This applies for adjustments which have occurred on the spending side and have been large, credible, decisive and perceived as permanent (thus indicating a change in regime and eliminating the need for larger, maybe much more disruptive adjustments in the future). The interest rate also plays a significant role, again through lower premia on government bonds and through the reaction of those private demand components which are sensitive to the real interest rates. The decrease in interest rate can also lead to the appreciation of stocks and bonds, increasing agents' financial wealth, and triggering a consumption / investment boom. On the supply side, expansionary effects of fiscal adjustments work via the labor market and via the effect that tax increases and / or spending cuts have on the individual labor supply in a neoclassical model, and on the unions' fall-back position in imperfectly competitive labor markets.
- It should be noted, however, that other researchers, with Krugman holding a leading role[6], consider past evidence as inconclusive and irrelevant to the present situation, as the benefits of fiscal consolidation were based on substantial moves into trade surpluses and / or sharp declines in interest rates which at this point in time are not feasible.

[1] *Reinhart, C. M., Rogoff, K. S. 2010. “Growth in a Time of Debt”, American Economic Review, May 2010, Vol. 100, No. 2. pp. 573-578.*

[2] *Afonso, A., “Expansionary fiscal consolidations in Europe: New evidence”, ECB Working Paper Series no 675 / September 2006.*

[3] *"Will It Hurt? Macroeconomic Effects of Fiscal Consolidation". Chapter 3 of the IMF's October 2010 "World Economic Outlook".*
[4] *S. P. Berkmen, The Impact of Fiscal Consolidation and Structural Reforms on Growth in Japan, IMF Working Paper, WP/11/13.*
[5] *Alesina, A. and S. Ardagna, "Large Changes in Fiscal Policy: Taxes Versus Spending", NBER Working Paper No. 15438, revised January 2010, along with a presentation of A. Alesina Prepared for the Ecofin meeting in Madrid April 15 2010.*
[6] *Among others, http://krugman.blogs.nytimes.com/2010/06/18/fiscal-fantasies-2/.*

3 General Government Balance and Debt

3.1 Policy Strategy

The government's fiscal policy strategy for 2010 was based on five key pillars, which were considered of high priority in order to restore credibility and efficiency in the public sector. These policy targets, namely fiscal statistics transparency, changing the budgeting process, reforming the tax system, controlling primary expenditure and implementing structural reforms have been duly pursued and streamlined.

The success of the first year of fiscal consolidation has to be enhanced with policies that will establish and sustain these results. Therefore, the government's fiscal policy strategy for 2011 is based on the following key pillars:

- Continue implementing structural and institutional reforms.
- Further improve the tax administration and tax collecting efficiency.
- Implement a medium-term adjustment fiscal plan.
- Establish public financial management through accounting officers and commitment registers.
- Scale up the Privatisation and real estate development programme.
- Further reform state-owned enterprises and local governments.

3.2 The deficit reduction in 2010

Fiscal developments in 2010 were characterized by the implementation of economy wide measures in three consecutive steps (January-February, March and May), aimed at bringing down the general government deficit by an enormous 5.5 percentage points (p.p.) of GDP (from 13.6% in 2009 to 8.1% of GDP in 2010) during the first year of the economic adjustment program. However, after the compilation of the three year economic adjustment program, the deficit and debt data for 2009 were subject to a major revision in November 2010, by Eurostat.

More specifically, the 2009 general government deficit was revised upwards by 1.8 p.p. of GDP (from 13.6% to 15.4%) and the 2009 debt was revised by 11.7 p.p. (from 115.1% to 126.8%). The main elements of the revision were related to the delimitation of the general government sector, the recording of certain government transactions (notably for off-market swaps and social security funds), and the recording of amounts payable. In addition, the level of GDP in 2009 was revised downwards by 1 p.p. compared to the figure reported in April. It is important to note that these revisions, which took place after the compilation of the program and despite the worse implications, did not set the effort for fiscal consolidation off-track.

The general government deficit reduction which was finally achieved amounted to 5 p.p. of GDP (from 15.4% in 2009 to 10.5% in 2010), an improvement which fell short the initial target of 5.5 p.p. mostly due to an inter-quarter shift in recession that reduced tax receipts and social security contributions corresponding to end of 2010 economic activity. This deficit correction is the highest ever in a Eurozone country. The impact of total measures implemented in 2010 exceeded 8 p.p. GDP, but its full effectiveness on deficit reduction was hampered by the underlying pressure on expenditure and tax shortfalls due to the deeper than anticipated recession.

Fiscal adjustment in 2010 was achieved through a combination of measures drawing almost equally on both the expenditure side and the revenue side of the budget. Recession in the economy and fiscal consolidation seem to be calling for the implementation of measures that contradict each other (being expansionary and contractionary respectively), but fiscal imbalances are on an unsustainable track which needs to be taken care immediately, whereas recession is the downturn of an economic cycle. Under sustainable fiscal conditions, fiscal multipliers would also have a stronger corrective impact in the upturn of economic activity. In the current situation though, cutting down public expenditure and setting up an efficient tax system seems to be the only way out of what seems to be a dead-end.

Underlying fiscal imbalances can be traced back to historical data. During the 2005-2009 period, nominal GDP increased by 20.5%, tax revenues (direct and indirect taxes) increased by 15.5% and general government primary expenditure (excluding interest payments) increased by 49%. These developments imply that the expenditure elasticity with respect to GDP was 2.4, three times greater than the tax elasticity with respect to GDP which was 0.75. The consequence was that during high growth periods, expenditure increased more rapidly with respect to tax revenue, resulting to a widening of the deficit.

BOX VI: The effectiveness of the fiscal consolidation effort on deficit reduction

Academic and policy related literature typically finds that the effect of fiscal consolidation of 1 percent of GDP reduces real GDP growth by about 0.5 percent within two years[1]. Therefore, the basic problem for fiscal adjustment plans is that, due to the subsequent contraction in economic activity, a smaller ex-post reduction in the fiscal deficit is achieved (compared to what would be expected in the absence of a negative growth effect). However, apart from the magnitude of the fiscal multipliers, the effect of fiscal policy on deficits depends on many other factors. Given the nominal deficit drift (the structural increase in the deficit level that would take place without measures) and the embedded multipliers, in the case of Greece a fiscal consolidation effort of 1 percent reduces the deficit by more than 0.5 percent of GDP.

Fiscal multiplies have been estimated by the Ministry of Finance as well as in the international literature[2]. The fiscal multiplier (effect on GDP of a 1 percentage point change in the fiscal deficit) is estimated to be between 2.5 and 3.0 (higher in comparison with other countries), whereas the effect of a 1 percent decline in GDP on the fiscal deficit is estimated to lie in the interval 1.4 - 1.9. Therefore, the efficiency of fiscal deficit reduction for Greece is calculated to be approximately 0.3[3].

This number though, is calculated without taking into consideration other factors such as, the increase in exports or lower interest rates[4]. After the proper adjustments, the efficiency of fiscal deficit reduction increases to 0.5 – 0.7 percentage points of GDP. This result is consistent with realized data from the 2011 State Budget Report, which show that in 2010, fiscal policy measures of 8 percentage points of GDP reduced the deficit by 5 percentage points of GDP (that is an implicit efficiency factor of 0.63).

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[1] *IMF, World Economic Outlook, October 2010*

[2] *Patrick Artus, The arithmetic of fiscal deficit reduction, and the conditions for success of fiscal adjustment plans, Economic Research, NATIXIS, No.236, May 2010*

[3] *Based on the formula of the aforementioned paper 1 / 1+ θμ, where μ is the fiscal multiplier and θ the effect of GDP on the fiscal deficit*

[4] *Labor Institute GSEE-ADEDY, Annual Report 2010*

3.3 The 2010 Budget

The State Budget deficit outturn for 2010 on fiscal basis was € 21,431 million compared to € 33,630 million in 2009 and, thus the deficit was reduced by 36.3%. The deficit reduction in 2010 is mainly due to the significant reduction of expenditure; more specifically, ordinary budget expenditure declined by 9.9% year-on-year, while primary expenditure decreased by € 6,387 million or 11.0%. Investment budget expenditure decreased by 11.9%, while interest expenditure increased by 7.3%. State Budget (ordinary and investment) expenditure decreased by 10,1%. Developments on the expenditure side of the budget show a significant permanent step to overturn the trend of recent years.

Table 3.1: Budget implementation

	2009*	**2010***	**% Change**
Ordinary Budget			
1. Net Revenue	48,545	51,187	5.4
2. Expenditure	74,627	67,243	-9.9
Primary Expenditure	58,043	51,656	-11.0
Interest payments	12,325	13,223	7.3
Public Investment Budget			
3. Revenue	2,040	3,072	50.6
4. Expenditure	9,588	8,447	-11.9
5. Central Govern. Balance (- surplus / + deficit)	33,630	21,431	-36.3

* *Medium-term Fiscal Strategy*.

State budget revenue increased by 7.3% and thus remained within the targets as a result of both increased tax and investment revenue in December. Net revenue of the ordinary budget in 2010 increased by 5.4% against a targeted increase of 6% and investment budget revenues increased by 50.6% against a targeted annual increase of 41.7%.

One of the most important fiscal indicators for debt sustainability and the one that international private financial funds keep track of, is the ability of fiscal policy to generate future primary surpluses. In 2010 the ordinary budget showed a significant reduction of the primary deficit from € 21,305 million in 2009 to € 8,208 million in 2010. The total amount of the reduction (€ 13,097 million) signifies the magnitude of the consolidation effort and the determination to quickly reverse the deficit to long lasting surpluses. Since most of the measures (tax rates increases, reductions in compensation, social security reforms) have been translated to national legislation, it is ensured that they will have a permanent effect.

3.4 Fiscal prospects for 2011

The 2011 budget was the first budget to be drafted and implemented following the principle of fiscal management at the level of general government. In this context, the additional measures included in the 2011 budget, focus on reducing operating expenses in public enterprises, controlling health expenditure, means-testing social benefits and reducing military expenditure.

The improvement of tax collection remains a crucial element in the second year of the program, not only given its direct impact on fiscal accounts, but also on tax equity grounds. In March 2011 legislation was passed to fight against tax evasion, to accelerate and reinforce actions against tax evaders, to increase the efficiency of the tax collection mechanism and to accelerate tax-related court cases.

Following the reduction of the general government deficit by 5.0 p.p. in 2010, the target for 2011 is to reduce the deficit further by 3.2 p.p. (that is a reduction of the deficit from 10.5% in 2010 to 7.3% in 2011) or about € 7.8 bn (from € 24.2 bn to € 16.4 bn). Despite the smaller reduction compared to 2010, as measured in GDP percentage points, the fiscal consolidation effort will be of the same magnitude. Fiscal measures will amount to more than 8 percentage points of GDP, but the nominal deficit drift in 2011 (the increase in interest payments, pension expenditure and other structural expenditure that would take place without measures) is expected to reach 5 p. p. of GDP.

The size of the required fiscal adjustment is therefore larger than initially projected in the Economic Policy Programme in order to compensate for the target slippage in 2010, due to the data revision. Fiscal policy will be facilitated by the fact that most of the measures underpinning the 2011 deficit target have been legislated and are already being implemented. The adjustment will be achieved through a mix of revenue and expenditure measures. Since most measures for the central government have been implemented in 2010, reaching the target depends on structural reforms concerning the general government entities. Many significant reforms have been initialized in the social security sector and in the health system in order to control pharmaceutical spending and to centralize procurement. State enterprise restructuring is also underway, and in early 2011 legislation introduced wage cuts of over 10% and increases in public transport tariffs (averaging 30%). Specific restructuring plans were also elaborated for the railroad companies and the Athens urban transportation system.

Resources for the economic adjustment program from European partners and the IMF have been decided to be provided with longer repayment periods and lower interest rates. Such an arrangement would drop amortizations during 2013–15 by one third from €163 bn to €110 bn, thus raising the probability of earlier access to the market on better terms.

3.5 The 2011 Targets

According to the Medium-term Fiscal Strategy (MTFS)the deficit of the Ordinary and Investment Budget will decrease by € 377 million or 1.8%. A better performance of budget consolidation is hindered by the huge increase of interest payments (21.0%). This development shows how debt servicing forces the implementation of new measures (through deficit drift), dampens social programs (through crowding-out) and prolongs the period required for fiscal consolidation and debt sustainability.

For 2011, the MTFS includes carry-over measures from 2010 (such as incomes policy and increase in excise taxes and VAT rates), measures already included in the Economic Policy Programme (such as savings from the “Kallikrates” law for local authorities, savings from the Single Payment Authority, the new tax system, revenue from gaming permits and illegal buildings) and new measures (such as savings from public enterprises, savings from the health sector, revenue from state assets and tax evasion).

The total estimated impact of additional interventions in 2011 is € 6,744 million or 3.0 p.p. of GDP, mainly due to the consequences of the recession and the data revision in 2010.

Table 3.2: 2011 Targets

	2010	**2011**	% change
Ordinary Budget			
1. Net Revenue	51,187	54,042	5.6
2. Expenditures	67,243	71,471	6.3
Primary Expenditure	51,656	52,049	0.8
Interest Payments	13,223	16,002	21.0
Public Investment Budget			
3. Revenue	3,072	3,925	27.8
4. Expenditure	8,447	7,550	-10.6
5. Central Government Balance (- surplus/ + deficit)	21,431	21,054	-1.8

Source: Medium-term Fiscal Strategy.

3.6 The Medium Term Prospects 2012-2014

Prospects outlined in this section are of (and compatible with) the overarching Medium Term Fiscal Strategy for the 2012 – 2015 period. Law 3871/2010 had already provided for a medium term fiscal planning under a new fiscal management framework. The Medium Term Fiscal Strategy has already been approved by. It includes the medium term fiscal targets for the general government, macroeconomic and fiscal forecasts over the three year period following the current fiscal year, contingency reports on the fiscal forecasts as well as annual expenditure ceilings for public entities and institutions. The medium term fiscal planning aims at reverting the unsustainable public debt dynamics and at enhancing the long term growth potential of the economy. This fiscal framework aims also at mitigating the impact on debt developments of the autonomous movements in expenditure and revenue due to high debt servicing costs, aging costs, increases in social transfers and unemployment benefits.

The Medium Term Fiscal Strategy 2012-2015 is based on the following policy targets:

- Fiscal adjustment effort, in order to reduce the general government deficit below 3.0% of GDP by 2014. Fiscal adjustment would be coupled with large primary surpluses over the medium term, thus supporting fiscal sustainability.
- Economic growth and competitiveness, in order to increase the nominal GDP by more than 3.0% in 2013. The aim is an average long term nominal GDP growth rate of more than 5.0%, which is necessary so as to mitigate the "snowball" effect on public debt.
- Privatization and real estate development programme, which will significantly contribute to public debt reduction and will strengthen economic growth prospects.
- Social protection, in order to ensure that fiscal consolidation and economic growth are sustainable and in line with social justice.

The cumulative fiscal adjustment effort over the programme's horizon amounts to more than € 28 bn or 12.1 p.p. of GDP in order to meet the medium term fiscal target which is a general government deficit less than 3.0% of GDP in 2014 and 0.6% of GDP in 2015.

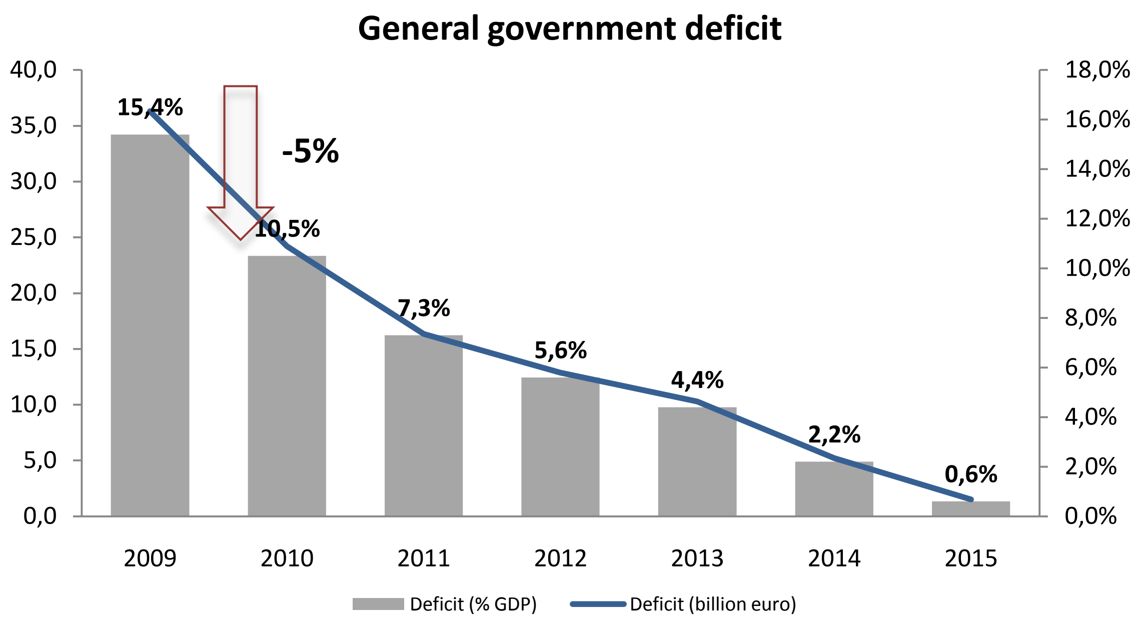
The fiscal consolidation strategy targets both a reduction in general government expenditure as well as an increase in general government revenue, in order to ensure a gradual convergence of public expenditure and revenue over the medium term. The measures on the expenditure side mostly aim at curtailing public spending and at reforming / restructuring inefficient parts of the public sector, such as extra-budgetary funds and state enterprises. The cumulative amount of measures needed for the 2011-2015 period in million euro is outlined in Table 3.3 The specified areas of intervention as well as the numerical targets are summarized in Table 3.4.

The medium-term fiscal strategy and the privatization and state management programme are the two essential policy frameworks for strengthening the nascent recovery and reversing the debt trajectory.

Table 3.3: Cumulative amount of measures needed for the 2011 – 2015 period (€ million)

General government deficit - basic scenario	36,183
Minus 2015 deficit target	2,600
Measures needed to reach the 2015 deficit target (fiscal gap)	33,583
Minus interest payments saved	6,200
Measures needed to cover the fiscal gap	27,383

Figure 3.1: General government deficit



The public sector wage bill will be reduced by € 2.2 billion through, *inter alia*, restricted hiring, reduction in fixed-term contracts, increase in working hours, savings from overtime payment and the establishment of part-time employment. Other spending cuts will be realized through reducing state operational expenses (€ 1.1 billion), defence expenditure (€ 1.2 billion), health expenditure (€ 1.0 billion) - mostly by reducing cost per patient per case which is of the highest among OECD countries and pharmaceutical expenditure through improved monitoring (€ 1.1 billion).

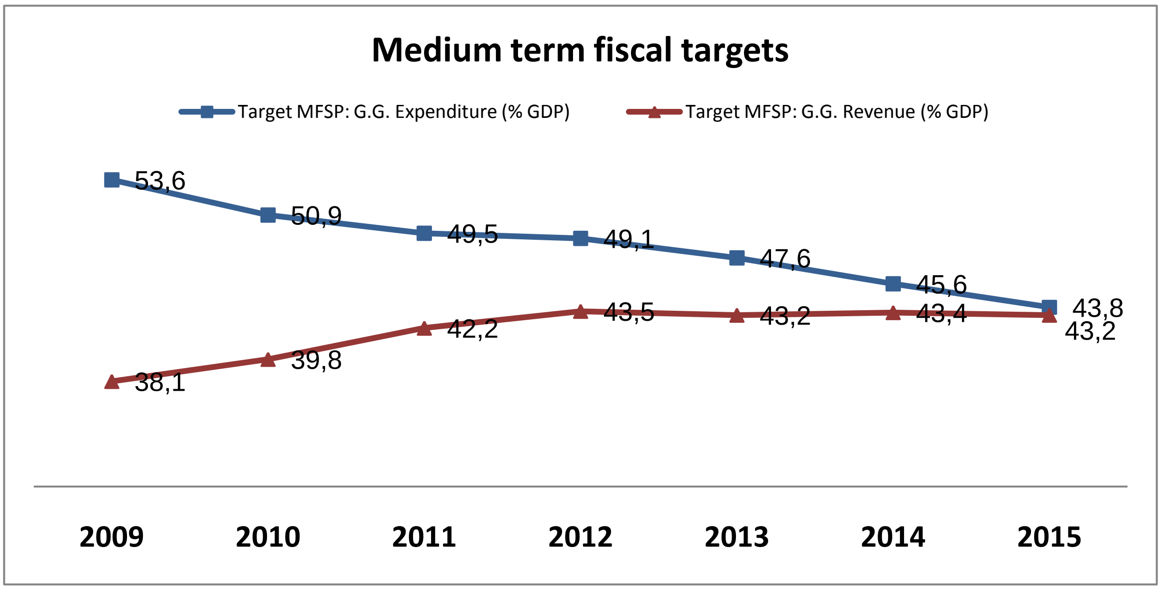
Reforming the public sector will result to € 1.2 billion savings from abolishing or merging of public entities, € 1.3 billion from restructuring state-owned enterprises, € 5.2 billion from reducing the deficit of Social Security Funds and by mean-testing welfare benefits and € 1.5 billion from improving the operation of local authorities.

Finally, a considerable amount (approximately € 12.8 billion) is estimated to increase state revenue from tackling tax evasion, more effective taxation of real estate assets, eliminating tax exemptions and increasing other tax revenues, reducing uninsured labor and introducing incentives for compliance with social insurance requirements.

Table 3.5: The Fiscal Consolidation Effort (% of GDP)

		% of GDP
1.	Streamlining the Public Wage Bill	0.9
2.	Reduction in Operational Expenses	0.5
3.	Closure/Merger of Public Entities	0.5
4.	Restructuring of State-owned Enterprises	0.6
5.	Reduction in Defense Spending	0.5
6.	Streamlining Health Expenditures	0.4
7.	Streamlining of Pharmaceutical Expenditures	0.5
8.	Reduction in Social Security Fund expenditures and streamlining of other social spending	2.2
9.	Strengthening Tax Compliance	1.2
10.	Reduction in Tax Exemptions and increase in other tax revenues	2.9
11.	Increase in Social Security Fund revenues and tackling social insurance contribution evasion	1.4
12.	Increase in Local Government Revenues	0.6
13.	Other Expenditures	0.2
	TOTAL	**12.1**

Figure 3.2: Medium-term targets



The privatization and state management programme is expected to accrue significant revenues in the order of € 15 billion during the 2011-2012 period, totaling € 50 billion until 2015. The programme could appear ambitious compared to past experience but its effective implementation could significantly reduce the interest payments burden of the state budget and play a significant role for ensuring debt sustainability. Indicatively and at a first approximation, the successful implementation of the programme is expected to reduce the annual interest expenditure by € 3 billion.

3.7 The Public Debt

The build up of substantial general government deficits, particularly in 2009, and the subsequent decline in output growth have taken a heavy toll on the dynamics of the general government debt to GDP ratio. The general government debt increased to 142.8% of GDP in 2010 compared to 127.1% of GDP in 2009 and 110.7% of GDP in 2008.

The sharp increase of general government debt by more than 15 percentage points of GDP in 2010 (more than the 10.5 p.p. due to the deficit) is attributed to the settlement of past years obligations to hospitals, the assumption of called government guarantees and liabilities, the creation of the Financial Stability Fund.

In 2010, the weighted average cost of new borrowings was 4.1% for an average maturity of 3.85 years, while in 2009, the weighted average cost of new borrowings was also 4.1% for an average maturity of 5.6 years. In 2010, the debt management strategy focused on:

- maintaining the modified maturity within the desired band of 3.5 to 4.5 years,
- keeping the ratio of floating interest rate debt between 65% and 80% of the total portfolio,
- minimizing foreign currency exposure and
- maintaining the proportion of debt maturing within the next 5 years at less than 55% of the total portfolio.

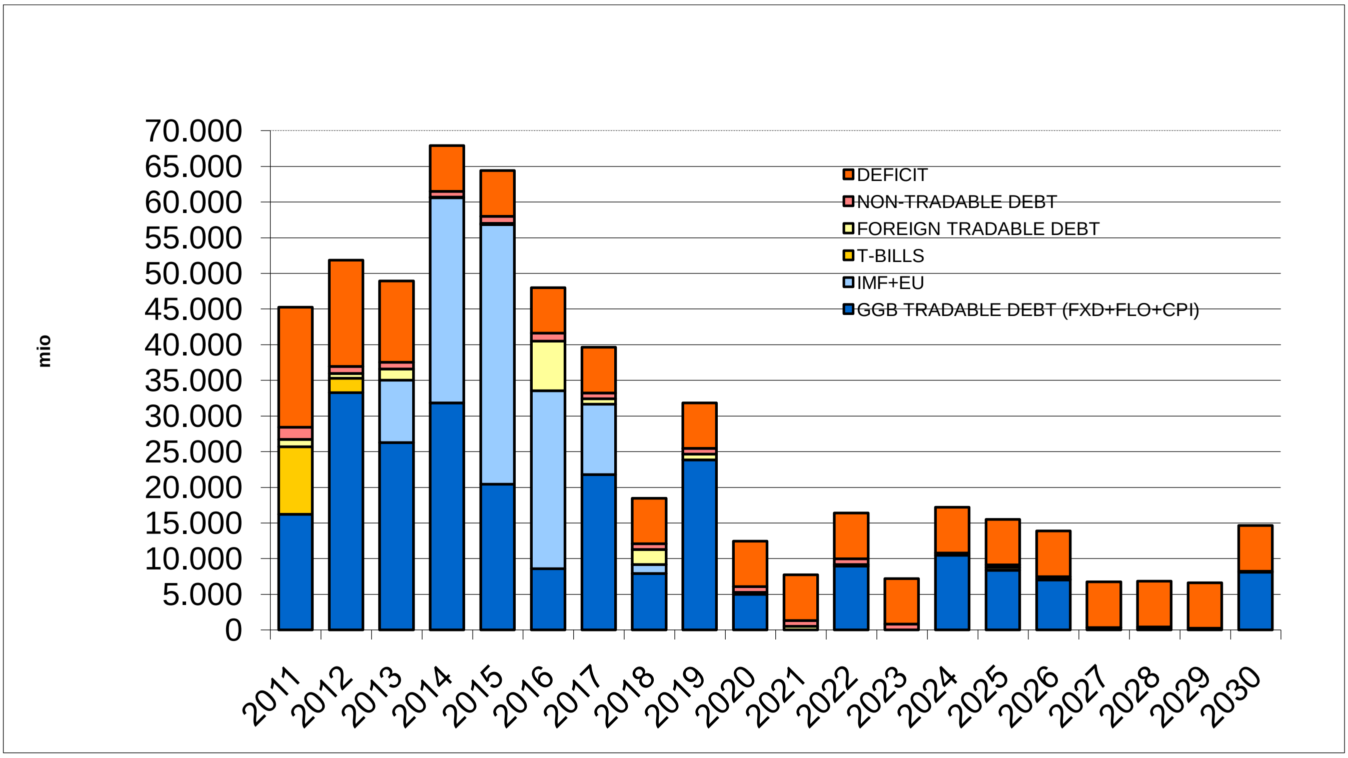
Under the baseline scenario, which is in line with the Medium term fiscal strategy 2012-2015, public debt as a share of GDP, including new measures and privatizations, will peak at 159.8% in 2012 and gradually decline to 139.5% in 2015. The increase in public debt reflects persistent deficits and automatic debt dynamics effects from interest rate / growth differentials.

The Medium Term Fiscal Strategy aims at setting the stage for a sustainable reduction of the general government debt. This will be accomplished through economic policy by: a) setting fiscal policy targets, aimed at achieving large primary surpluses over the medium term, starting from 2012, and b) a rebound in economic activity from 2012 onwards.

But there are other crucial factors that can enhance the impact of economic policy and speed-up the process of debt reduction. Such factors are privatization proceeds, interest rate reduction and reprofiling debt. Privatization and real estate development receipts of an estimated amount of € 50 billion from state assets use over the 2011-2015 period will directly contribute to the significant reduction of the public debt ratio. Although the average maturity of the debt is relatively high (7.3), there are large rollover needs in the following years.

More than one third of the debt stock will mature in the next three years, and almost half will mature in the next five years. Under these circumstances the reprofiling of the debt component that has been approved for the EU loan will reduce amortizations during 2013-2015 by 48 billion euro, raising the probability of earlier market access on better terms. When this kind of arrangement is extended also to the IMF loan, the amount will increase to 54 billion euro.

Figure 3.3:Amortization and central government deficit 2011 – 2030 before reprofiling of EU – IMF loans

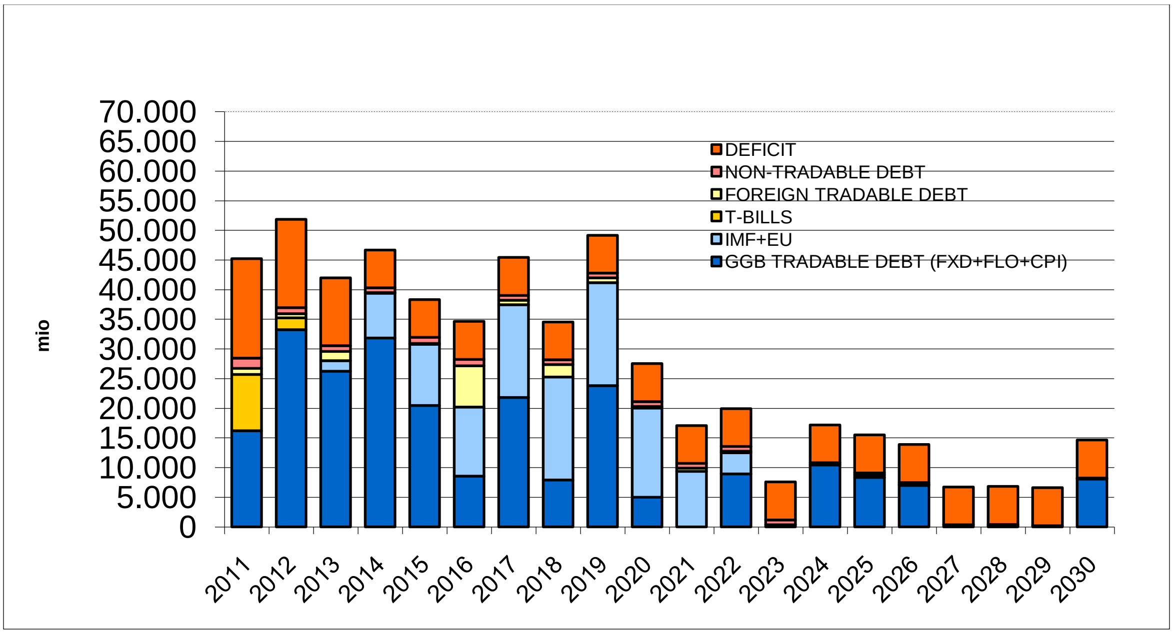


Source: PDMA, 2011.

Table 3.5: Debt Reprofiling Scenarios			
	Before Reprofiling	Reprofiling EU (4.5+5.5 years)	Reprofiling EU+IMF
2011	28433	28433	28433
2012	34963	34963	34963
2013	37539	30476	30563
2014	61493	41396	40289
2015	57995	36959	31931
Amortization reduction			
2011		0	0
2012		0	0
2013		-7063	-6976
2014		-20097	-21204
2015		-21036	-26064
Total 2013-2015		-48196	-54244

Source: PDMA, 2011.

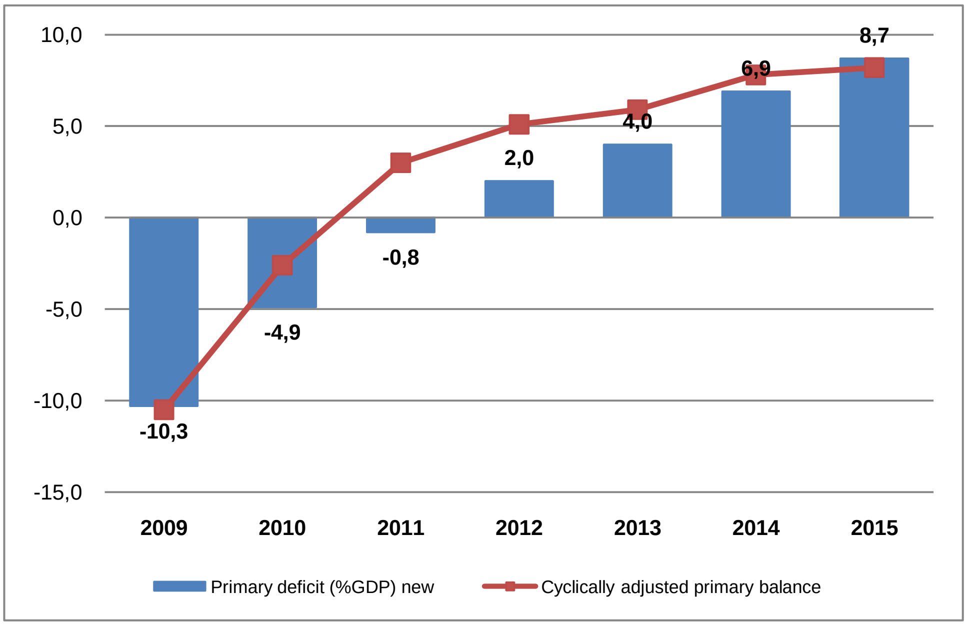
Figure 3.4: Amortization and central government deficit 2011 – 2030 with reprofiling EU and IMF



Source: PDMA, 2011.

Overall, the general government debt to GDP ratio depends on many factors. The combination of these factors and the determination of economic policy to fully implement the measures under the economic programme will gradually improve the debt dynamics. It is very interesting to note the progress that will be achieved by the end of 2011 in one of the most important determinants of

Figure 3.5: General government primary balance



debt sustainability: the primary balance. When measured in terms of cyclically adjusted primary balance (CAPB), the achievement of the fiscal target at the end of 2012 means that the CAPB becomes a surplus of 5.1% signalling a dramatic reversal from -2.6% two years earlier (Figure 3.5). Regarding the other important variable for debt sustainability, growth, Box VII summarises its link with the currently implemented structural reforms. Growth is also promoted by some tax policy measures that have been adopted: the significant reduction in the VAT rate for tourist accommodation and the reduction in the corporate tax rate.

BOX VII: Structural reforms and growth

The Greek economy is at a critical junction as far as its growth prospects are concerned: the frontloaded fiscal consolidation effort could have short-term adverse growth effects (for longer-term effects, however, see Box V), while significant downside risks and uncertainties exist for the recovery of the euro area and the global economy. Also, the repercussions of the debt crisis facing or threatening several economies and the resulting increase of borrowing costs could have more widespread effects than originally expected.

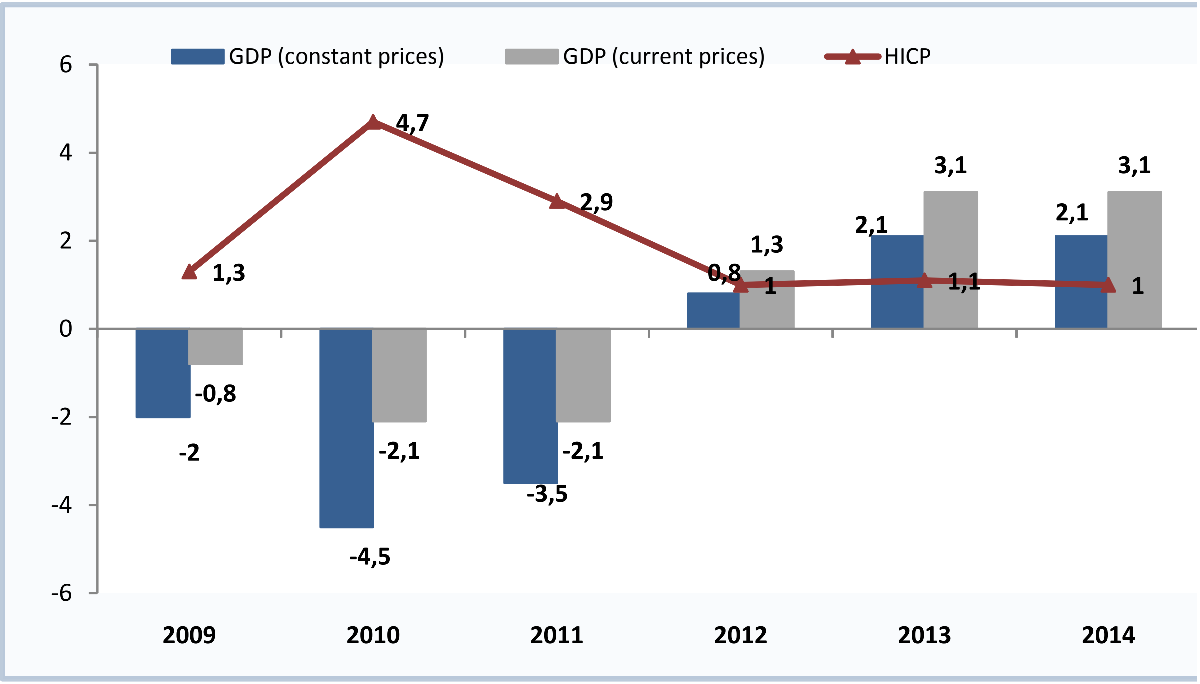
Regarding the Greek economy, much hinges on the composition, the speed of implementation and the overall progress of the structural reform programme already underway. Market oriented reforms (such as opening up markets, strengthening competition, simplifying licensing procedures, liberalising closed professions, privatisation) could drive private investment thus enhancing (among others) productivity and the process of technological restructuring – both of which are directly linked to competiveness. Labour market reforms could add to the labour content of the expected recovery as of 2012, while at same time helping contain labour costs. The tax reform and the effort to tackle tax evasion could allow lowering the tax burden in the medium-term, with obvious benefits for real incomes, private consumption and competitiveness. Overall and building on these indicative examples, structural reforms are a determining factor for the successful implementation of a new growth model based on investment and the outward orientation of the Greek economy.

The Economic Adjustment Programme currently underway provides for wide-ranging structural reforms in the spirit mentioned above. Regarding the expected impact of these reforms, a recent study (by FEIR[1]) using the IMF Global Integrated Monetary and Fiscal model concludes that the long-run effects of structural reforms could amount to a total of approximately 17% of GDP (stemming from reforms both in the product / services market and the labour market - the effect from the non-tradables sector amounts to 13.5 p.p. while the effect from the labour market to 3.2 p.p.). According to EU Commission estimates[2], Greece could benefit as much as 4% of GDP from labour market reforms (in five years as a result of a 1% decline in real wages) and 2.5% of GDP stemming from product market reforms (again in five years as a result of a 5% decline in mark-ups). On top of these, an increase by 1 p. p. in TFP results in an increase in real GDP by 0.6% in the medium term and, in case the shock persists over five years, the impact reaches 2.5 p.p. Although admittedly a favourable TFP shock is most difficult to engineer by targeted economic policies, appropriate labour and product market reforms could free up resources for private sector investment in R&D and innovative technologies. As noted by the Commission, given the comprehensive structural reform agenda in Greece, some positive effect on TFP is likely, as a combination of reforms may well favour stronger economic efficiency.

A comprehensive list of structural reforms implemented and currently in progress is provided in the Summary Table below.

Summary Table of the main structural reforms implemented in 2010 and 2011 or currently in progress

Completed in 2010	
Independence of the Hellenic Statistical Authority	✓
Overhaul of the tax system	✓
Fiscal Management and Responsibility Act	✓
Reform of local public administration (“Kallikrates”)	✓
Private and public sector pension reform	✓
Labour market reform	✓
Financial Stability Fund	✓
Allocation of the private insurance sector supervision to the Bank of Greece	✓
Restructuring of the railway sector (OSE)	✓
Liberalisation of road freight transport	✓
“Fast-track” important investments	✓
Horizontal legislation on the Services Directive	✓
Single Payment Authority for the wage bill in the public sector	✓
Online publication of all decisions involving commitments of funds in the general government sector	✓
New investment law	✓
Liberalisation of closed professions	✓
Healthcare reform	✓
Restructuring of the urban transport entity (OASA)	✓
Law on combating tax evasion and restructuring of the tax services	✓
Establishment of a commitment registry for the general government	✓
New Law for the Hellenic Competition Authority	✓
Simplification of the start-up of new businesses Simplifying licensing procedures for technical professions ,industrial activities and business parks	✓
Privatisation Plan	✓
In progress	
Single remuneration system for public sector employees	✓
Restructuring plan for Public Enterprises	✓
Privatisation Plan	✓
Liberalisation of the wholesale electricity market	✓
Single Public Procurement Authority	✓



[1] *The Greek Economy, Foundation for Economic and Industrial Research, 2/10, May 2010.*
[2] *European Economy, Occasional Papers 72, December 2010.*

BOX VIII: The impact of a 50 billion state-owned assets' divestiture on public debt sustainability

A starting point of public debt sustainability is that the government should satisfy its budget constraint. Thus, under the simplified assumption of a constant GDP growth rate and a constant interest rate, the evolution of the public debt to GDP ratio can be expressed by the following first-order difference equation:

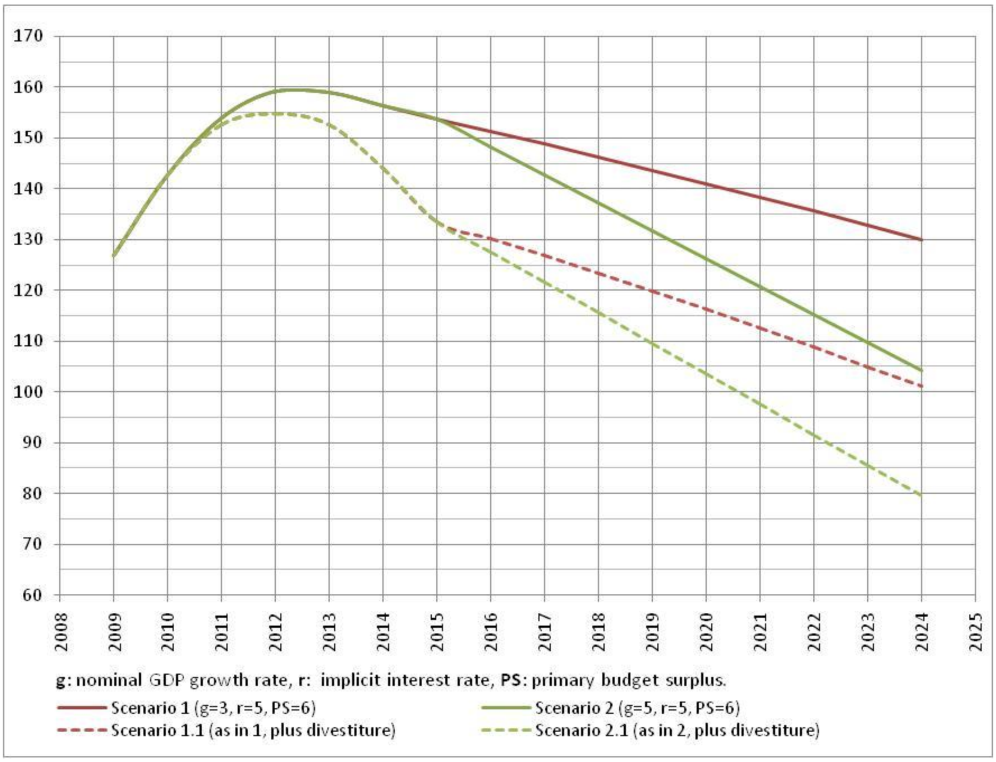
$$d_t - d_{t-1} = (r - g)d_{t-1} - ps_t$$

where d is the public debt to GDP ratio, r is the nominal implicit interest rate , g is the nominal GDP growth rate and ps is the primary budget balance to GDP ratio.

The following exercise assesses the impact of a 50 bn Euro state-owned assets' divestiture effort on the evolution of public debt to GDP ratio until 2025. The two baseline Scenarios (Scenario 1 and Scenario 2) assume that during the period 2015-2025, there is no implementation of a state-owned assets' divestiture program, while the implicit interest rate is constant at 5.0% and the primary budget surplus remains constant at 6.0% of GDP. The two Scenarios differentiate only on the assumption made on the nominal GDP growth rate. Under Scenario 1, the nominal growth rate is constant at 3.0% throughout the exercise, while under Scenario 2, the growth rate is 5.0%. The significance of GDP growth on public debt sustainability is considerable, since a higher GDP growth rate reduces substantially public debt to GDP ratio over the medium term.

The two alternative Scenarios (Scenario 1.1 and Scenario 2.1) relax the assumption of the baseline Scenarios regarding the implementation of a state-owned assets' divestiture program. Thus, they assume that a 50bn Euro state-owned asset divestiture effort spanning through 2015 is broken down as follows: 5bn in 2011, 10 bn in 2012, 35bn in 2013-2015. The divestiture effort contributes substantially to the improved public debt to GDP ratio dynamics, starting from 2011. Under the alternative Scenarios, the public debt to GDP ratio is lower compared to the two baseline Scenarios over the period 2011 to 2024. It is stressed that the divestiture effort substantially improves debt sustainability, even under the assumption of a lower GDP growth (Scenario 1.1 vs Scenario 2). Also, the divestiture effort coupled with an improved economic outlook that could stem from the implemented structural reforms (Scenario 2.1) will contribute to the sustainable reduction in public debt to GDP ratio.

It should be noted that the positive impact of the state-owned assets' divestiture effort on public debt sustainability could be higher, since in the present exercise there are no second round effects on the GDP growth rate, stemming from the program implementation.



3.8 The Structural Budget Balance

The structural budget balance provides a characterization of the budget balance net of the effects of the economic cycle. The cyclical position of the economy is characterized by the output gap, with the economy's potential GDP determined on the basis of a harmonized production function methodology developed jointly by the European Commission and member states linking the available quantities of capital and labour with estimates of the trend of the economy's total factor productivity (TFP). It should be noted, however, that the effects of structural reforms already underway or planned and their impact through TFP growth on potential output are not reflected on current estimates of potential GDP growth as they cannot be captured by this methodology.

Potential GDP growth is estimated to remain close to zero throughout the programme's horizon and the output gap is negative, recovering from 2012 on. The fiscal consolidation effort is expected to lead to the reduction of the structural budget deficit to -1.3% of GDP in 2014 compared to a -2.2% general government deficit (see Table 5 of the Annex).

4 Sensitivity analysis and comparison with previous update

4.1 Alternative scenario: Sensitivity of budgetary projections

The baseline scenario is based on a prudent assessment of the risks on the international and domestic economy. The existing risks are rather balanced. Upside risks remain the growth-enhancing impact of the structural reforms and the reform programme underway. Downside risks include a slower recovery in the international economic activity due, for example, to the high oil prices, leading to lower demand for Greece's exports. Domestic risk factors include the possibility of a slower economic recovery in the medium-term.

In this section, a sensitivity analysis of the budgetary medium-term projections is developed, which is based on a more "pessimistic" scenario on GDP growth developments. The overall impact of such a hypothesis on budgetary projections is examined and the latter is compared to the baseline scenario.

In the alternative macroeconomic scenario a deeper recession for 2011 and a slower recovery of GDP growth in the medium-term is assumed compared with the baseline scenario. In particular, the rate of change of real GDP in 2011 is estimated at -3.8%, while the recovery over the period 2012-2014 averages a 1.3% annual growth rate from 1.7% in the baseline scenario. In this scenario, inflation rate is projected to remain unchanged compared to the baseline scenario, reflecting a compensation of the factors leading to a rise of the inflationary pressures (for example due to higher oil prices) with the factors that lead to a decrease in prices (for instance, due to a lower level of domestic demand). Finally, the alternative scenario retains the revenue elasticities of the baseline scenario, while the government expenditure components grow at the same rates of change of the baseline scenario.

Under these assumptions and if a "no policy change" scenario is adopted, the general government deficit is projected to increase to 7.5% of GDP in 2011 (instead of 7.3% in the baseline scenario) and to follow a downward path throughout the projection period to an estimated value of 3.1% of GDP in 2014 instead of 2.2% in the baseline scenario). The cumulative new measures needed to fill the gap between the estimated deficit in 2014 and the corresponding fiscal target amount to 2.1 billion euro, or 0.9% of GDP. In accordance to government deficit developments, the general government debt as a percentage of GDP (including new measures and privatizations) will be 152.1% in 2014 up from 150.1% in the baseline scenario.

Table 4.1 provides a comparison of key indicators between the baseline and the alternative scenarios.

4.2 Comparison with the previous update

The 2010 SGP update was prepared and submitted to the Commission before the adoption of the Economic Adjustment Programme (EAP). Although the previous update of the SGP and the EAP had similar objectives, the latter provided for a more frontloaded fiscal adjustment resulting to lower GDP growth rates which directly affects public debt dynamics. It should be noted that the differences from the previous update are affected by the upward revision in the fiscal data for 2006 – 2009, as published on November 15th, 2010 by Eurostat as well as the provision of deficit and debt data for 2010 as published on April, 26th, 2010.

Table 4.1: Comparison between the baseline and the alternative scenarios

	Baseline scenario				*Alternative scenario*			
	2011	*2012*	*2013*	*2014*	*2011*	*2012*	*2013*	*2014*
1. GDP growth rate	-3.5	0.8	2.1	2.1	-3.8	0.6	1.6	1.6
2. Nominal GDP growth rate	-2.1	1.3	3.1	3.1	-2.3	1.1	2.6	2.6
3. General government deficit, % of GDP	-7.3	-5.6	-4.4	-2.2	-7.5	-5.9	-5.0	-3.1
4. General Government debt, % of GDP	156.4	159.8	157.7	150.1	156.6	160.3	158.8	152.1

Table 4.2: Divergence from previous update

	Year 2010	**Year 2011**	**Year 2012**	**Year 2013**	**Year 2014**
Real GDP growth (%)					
Previous update	-0.3	1.5	1.9	2.5	
Current update	-4.5	-3.5	0.8	2.1	2.1
Difference	-4.2	-5.0	-1.1	-0.4	
General government net lending (% of GDP)					
Previous update	-8.7	-5.6	-2.8	-2.0	
Current update	-10.5	-7.3	-5.6	-4.4	-2.2
Difference	-1.8	-1.7	-2.8	-2.4	
General government gross debt (% of GDP)					
Previous update	120.4	120.6	117.4	113.9	
Current update	142.8	156.4	159.8	157.7	150.1
Difference	22.4	35.8	42.4	43.8	

5 Quality of Public Finances

Improving the quality of public finances is a key element of the Greek reform programme. Overall, since the last update of the Greek SGP, significant steps have been made on enhancing the credibility of statistical data, adopting a new fiscal framework for budget process and monitoring and reforming the tax system and fighting tax evasion. In the medium-term, the strategy aims to reinforce the quality of public finances along these lines and targets both the expenditure and the revenue side. This chapter provides an overview of reforms already enacted with the aim of improving the quality of public finances and of reforms which will be adopted in the medium term.

5.1 Reforms already enacted

5.1.1 Institutional reforms

Independence of the Hellenic Statistical Authority

As a first and significant step in the groundbreaking reforms to improve the quality of public finances, the Greek Statistical Authority (ELSTAT) has been made institutionally and operationally independent (Law 3832/2010). The Law granting independence to the Statistical Authority also creates a Statistical Council, which will support the work of ELSTAT, and sets out the framework for the setting up and proper functioning of the Greek Statistical System (GSS), introducing a coherent framework of rules and institutions, thereby harmonizing the code of practice of the national system to the European Statistical System. ELSTAT has already concluded Memoranda of Understanding with 11 ministries and data providing entities with the aim to improve the compilation of ESA95 general government fiscal statistics. These Memoranda will form the basis of a new Statistical Regulation, which will be adopted in the near future. Moreover, a comprehensive Action Plan to tackle statistical, institutional and governance deficiencies, which was agreed between Eurostat and ELSTAT, is being implemented in order to address all remaining issues of capacity and effectiveness in Greek methodological practices and bring the Greek statistical system in line with EU requirements. As a result of these efforts, in November 2010 Eurostat validated the Greek fiscal data and lifted all its reservations, subsequent to the inclusion of all off-balance-sheet debt items in public debt. The timely implementation of the action plan continues to be a priority for the medium-term.

New Fiscal Framework

Another significant development in the area of public finances was the adoption of an overhaul reform of the existing fiscal framework. Law 3871/2010 establishes a new framework for drawing up, executing and monitoring the government budget by putting in place expenditure caps for central and general government spending, setting transparency standards and making information on government spending publicly available. All Presidential Decrees and Ministerial Decisions for the implementation of the new fiscal framework have been issued and as of 1 January 2011, the new Fiscal Framework is fully operational. The 2011 budget was the first budget to be drafted and executed following the principle of fiscal management at the level of general government. The 2011 budget includes a compulsory contingency reserve, detailed expenditure ceilings for each line ministry, local governments, and social security funds consistent with the general government deficit target, as well as information on monthly revenue per category, and expenditure per Ministry. Furthermore, Law 3871/2010 creates a framework for the implementation of a medium-term fiscal policy. In more detail, the new fiscal framework:

- Requires the Ministry of Finance to present a three-year fiscal and budget strategy (the Medium-Term Fiscal Strategy - MTFS).
- Introduces top-down budgeting with expenditure ceilings for the State budget and multi-year expenditure estimates by line ministry.
- Introduces standard contingency margins.
- Requires a supplementary budget for any overspending above the contingency.
- Introduces commitment controls.
- Requires monthly reporting of general government fiscal data.

In addition, Law 3871/2010 provides for the strengthening of the position of the Finance Minister vis-à-vis line ministries in both budget preparation and execution phases, giving him veto power on spending decisions and execution. Moreover, the role of the General Accounting Office (GAO) in the budget process and monitoring is strengthened by widening its tasks and responsibilities. More specifically, the new law provides that the General Accounting Office is responsible for monitoring the budget execution of entities of the general government and is tasked with the drafting and updating of the medium-term budgetary strategy and the quarterly and semi-annual report on the execution of the annual budgets of general government entities. Furthermore, the new fiscal framework lays down safeguards for the staff of GAO against political interference and strengthens their accountability in the production of data and the execution of the budget, while also providing for disciplinary actions.

Box IX: Action plan in support of the new Fiscal Management System 2011-2013

Steps are taken with regards to providing the necessary resources to the General Accounting Office in order to ensure that it can fulfil its new tasks and responsibilities envisaged by the new fiscal framework. To this end, a number of projects are planned for the period 2011- 2013. In order to carry out these projects, a framework agreement has been signed between the General Accounting Office and the Information Society. In particular, the action plan includes the following tasks:

1. Action planning and implementation of the reform

1.1 Integrated System of the Financial Reporting of General Government Agencies

1.2 Modern Fiscal Auditing

1.3 Develop cost models
1.4 Study of Ordinary Budget consolidation and Programme of Public Investments
1.5 Application of accrual accounting
1.6 Assets registry (per entity)
1.7 Updating the audit model
2. Structures and Functions
2.1 Restructuring of the Ministry of Finance organisational structure
2.2 Information Systems (MIS) at the GAO and entities
3. Support Operations
3.1 Technical support to entities on programme budgeting
3.2 Training of personnel (per entity)
3.3 Office Support reform in Ministry of Finance
3.4 Dissemination of results - diffusion - communication

Creation of a Budget Office attached to the Parliament

A Budget Office under the auspices of the Greek Parliament has been established under Law 3871/2010 with the mandate to provide independent advice and expert scrutiny on fiscal issues, and report publicly on the budgetary plans and execution of spending entities of the general government, and on macroeconomic assumptions used in the budget. The operational procedures of the Budget Office have been defined by a Decision of the President of the Parliament, while the Head of the Budget Office has been appointed and staffing is in progress and will be completed soon.

5.1.2 Measures on the expenditure side

Enhanced budget monitoring

In order to improve budget monitoring and contain overspending, inter-ministerial working groups have been established between the Ministry of Finance and each line Ministry with the mandate to monitor budget execution on a monthly basis. Moreover, the Ministry of Finance under-executes the budget by releasing every month only the 1/14 of the annual budgetary appropriation (excluding wages, pension and interest) to each ministry in order to create an additional reserve. In addition, reporting of budget implementation has been enhanced and budget execution reports for the central government are available online on a monthly basis, while the Ministry of Finance also publishes consistent arrears and consolidated general government fiscal reports. Finally, as of end March 2011, financial accounting officers have been appointed in major government entities and in all line ministries with the responsibility to ensure sound financial controls. The tasks and responsibilities of financial accounting officers are temporarily performed by the General Secretary of each ministry, while permanent financial accounting officers will be appointed by end August 2011.

Commitment registry

One of the major reforms aiming at improving the timely control of expenditures is the establishment of a commitment registry, where all commitments undertaken by the general government are recorded. This will allow the monitoring and reporting of outstanding liabilities and debts of the general government on a monthly basis. The commitment registry is fully operational, sanctions are applicable for non-compliance and the coverage and accuracy of data is constantly improving. Enhancing the operation of the commitment registry and improving its comprehensiveness, timeliness and accuracy remains a priority.

Monitoring of public enterprises

In order to enhance monitoring and reporting of public enterprises, a central registry for all enterprises in which the Hellenic Republic is a shareholder has been established, while the financial supervision of all public enterprises has been centralised at the Ministry of Finance. To this end, Law 3429/2005 was amended, so as to extend the coverage of all public enterprises and entities that are obliged to send financial information to the Special Secretariat of Public Enterprises and Entities to all public enterprises that were formerly excluded and also to legal entities classified under general government. The monitoring, organisation and operation of the central registry has been assigned to a dedicated manager. The intranet connection of the enterprises and entities with the Ministry‘s integrated information system (OPS) is operational as of end February 2011. The list of public enterprises included in the registry will be updated regularly. In particular, within this context the following actions are undertaken:

- Creation of a list of all companies in which the state is a shareholder.
- Collection, revision (where applicable) and publication of the companies' annual budget.
- Collection and publication of the companies' annual financial statements.
- Collection, analysis and publication of data on revenues, costs, payroll and number of employees on a quarterly basis, within three weeks from the end of each quarter.
- Collection and publication of quarterly financial statements of all enterprises in which the Hellenic Republic holds a significant equity stake.

The financial monitoring and controlling of public enterprises and entities is further supported by strengthening the role of internal auditors. To this end, the following actions are undertaken:

- Increasing (with the goal to more than doubling) the number of internal auditors appointed to public enterprises and entities in 2011 (currently there is a team of 18 internal auditors employed by the enterprises).

- Adoption of a standardized annual internal audit plan and ensure quarterly reporting from internal auditors (as of the first quarter of 2011).
- Extending the role of internal auditors to include the monitoring of reductions in personnel and non-personnel operating expenses on a monthly basis as well as the follow-up of submitting quarterly and monthly financial information.

«Cl@rity» (Diavgeia) program – Enhancing Transparency in the Greek public sector

One of the main initiatives of the Greek government to improve transparency and accountability in public spending is the implementation of the «Cl@rity» program. The Clarity program aims to bring about the maximum publicity of the government policy and administrative action by introducing for the first time in Greece the obligation to publish all the decisions on the Internet, with the exception of decisions that contain sensitive personal data and/or information on national security. As of October 1 2010, all Ministries are obliged to upload their decisions on the Internet and henceforth the decisions of public entities cannot be implemented if they are not uploaded on the Clarity websites, reinforcing responsibility and accountability.

Establishment of a Single Payment Authority

Another significant reform in the area of public finances was the establishment of the Single Payment Authority. This reform aims at improving the efficiency of the Greek public sector and allowing for a much tighter control of payroll expenditures, making possible the systematic monitoring and analysis of payroll statistics, and greatly simplifying the current public sector payment and remuneration system. Moreover, the SPA has activated a safety net in order to prevent double payment through tax offices. All actions regarding the supporting IT systems, staffing and office space needed for the activation of the Single Payment System have been completed, while the integration of all government entities in this system is in process and will be completed by end 2011. Currently, about 70% of payments are conducted through the Single Payment Authority.

Action Plan for the establishment of a Single Procurement Authority

Significant steps have been undertaken in order to create a Single Procurement Authority and increase effective control of government procurement. In particular, an Action Plan for the establishment of a Single Public Procurement Authority (SPPA) has been prepared in consultation with the European Commission services, which is being implemented according to the agreed timetable. The objectives of the Single Public Procurement Authority, as specified in the Action Plan, are:

- To act as the central body that will develop a comprehensive policy on public procurement in Greece and will ensure transparency, efficacy and coherence of implementation of public procurement procedures, as well as their compliance with EU public procurement law.
- To contribute to enhanced transparency on the state budget expenses of the central government and on the contracting authorities of the public sector in respect to public contracts.

The Action Plan provides that a National Electronic Public Procurement System (NEPPS), will be established by the General Secretariat of Commerce of the Ministry of Regional Development and Competitiveness, which will involve the creation of an electronic registry of suppliers, the provision of an electronic call for tenders, electronic award and performance procedures, as well as the provision for e-notice, e-catalogues, e-auction and e-invoice services, and also an online statistical reporting database on public supply contracts. At a first phase, the electronic system will be customized to encompass public services contracts, while as a next step it can be expanded to cover also e-procurement procedures for public work contracts.

A draft law on the establishment of the Single Public Procurement Authority has been prepared and will be submitted to the Parliament in July 2011.

Reduction in public sector employment

Efforts to reduce public sector employment are ongoing and will be further enhanced in 2012. The government has adopted an act that limits recruitment in the whole general government to a rule of 1 recruitment for every 5 exits up to 2015 (1 to 10 for 2011), without sectoral exceptions. To help manage the public sector with fewer employees, working hours have been extended to match the 40-hour work week private sector norm. Moreover, a medium-term staffing plan for the period up to 2015 with the rule of 1 recruitment for 5 exits (1 for 10 in 2011) is being finalised. The plan will include tighter rules for temporary staff, cancellation of vacant job post and reallocation of qualified staff to priority areas taking into account the extension of working hours in the public sector.

5.1.3 Measures on the revenue side

Tax reform law

A new tax law has been adopted in April 2010 that aims to simplify and rationalise the tax system, and introduce rules and procedures to effectively combat tax avoidance and tax evasion. The new tax law represents a complete overhaul of the Greek tax system and renders it simpler, more transparent, fair and effective in fighting tax evasion. The law introduces reforms in the areas of personal income taxation, capital and real estate taxes, business and corporate taxation and tax administration and auditing. The main elements of the tax reform bill (Law 3842/2010) are briefly analysed below:

- Introduction of a unified progressive tax scale.
- Abolition of autonomous taxation and most exemptions in personal income.
- Determination of imputed minimum taxable income based on the services, assets and estates owned or used by the taxpayer: All incomes are determined on an accounting basis abolishing imputed and autonomous taxation which have been the norm up to 2010 for a number of professional categories.
- Methods have been established for ascertaining minimum taxable income for taxpayers, calculated based on verified living expenses.

- Benefits in kind (goods or services) provided to corporate executives are treated for tax purposes as income belonging to the beneficiary (e.g. cars).
- Dividends to be treated as personal income taxed at the progressive tax scale.
- Incentives to facilitate the repatriation of capital from abroad.
- Increase the tax accountability of off-shore companies and their owners.
- Incentives for issuing and collecting transaction receipts.
- Reintroduction of a progressive tax on large property, inheritances and bequests.
- Introduction of a progressive taxation of transfers and contributions of real estate.
- Increased taxation on Church real-estate holdings and introduction of a tax on Church property income.
- Business tax-credentials are established by statutory auditors and certified accounting officers (accountants – tax consultants) that will certify company tax liabilities, soundness of book keeping, accuracy of tax data and tax returns.
- Control of pricing practices between parent company and subsidiary is re-enforced.
- Elimination of bargaining in penalty assessment and adoption of a point system.
- Extension of VAT obligation to include economic activities currently exempt.
- Higher penalties are imposed for substantial tax violations (i.e. non-issuance of tax documents). Fines imposed by auditing bodies concerning ascertained and undisputable violations (i.e. non-issuance of tax documents) are issued immediately, while the operations of business facilities are suspended in case of ascertained tax evasion offences.

As of 1/1/2011:

- All business transactions, including payroll transactions, are required to take place through the banking system.
- Invoices exceeding Euro 3,000 between companies or between companies and the state shall be settled by electronic means only.
- All transactions above Euro 3,000 between professionals will henceforth be made through a professional bank account and accompanied by a simultaneous transfer of all the respective information to the General Secretariat for Information Systems (GSIS).
- All transactions above Euro 1,500 between professionals and individuals will be required to be made by credit card, through a bank account, or by cheque payment.
- Receipts in the case of freelance service providers should be issued upon completion of services and not upon payment.

Increasing the effectiveness of tax control mechanism

During 2010, a new framework was designed and implemented in order to facilitate and enhance tax control. This includes, among other things, the following elements:

- The General Secretariat of Information Systems (GSIS) conducts cross-checkings based on risk criteria, and has been granted access to all levels of government data of financial interest, including a complete registry of individuals' property. Data received from other countries in the context of tax information exchange agreements are now included in the cross-checking programme.
- The Integrated Information System of Controlling Services (ELENXIS), which will support an objective, automatic and reliable risk-analysis system for the selection of audit cases at the central level, is being used on a pilot basis at the moment and will become partially operational during the first semester of 2011. This system will also allow the systematic record keeping of all audits, data and results in 2011.
- A procedure, by which businesses are ceased in cases of persistent non issuance of receipts, is activated.

Increasing the effectiveness of tax administration

One of the key challenges to improve the quality of public finances and increase revenues is the improvement of tax administration operations and structures. The Ministry of Finance implements a number of actions and measures to remove impediments and improve effectiveness of core operations of tax administration, including taxpayer services, control of tax returns, filing and payment, audit of tax compliance, resolution of tax disputes, and collection of tax debts. To achieve these goals, the following actions are being implemented:

- The Financial and Economic Crimes Unit (S.D.O.E.) has been re-established and reinforced with powers to issue tax fines on the spot. The objective of S.D.O.E. is to contribute to the fight against tax evasion and economic crime, by employing direct interventions and modern control methods. As a result, in 2010 the effectiveness of the auditing and control mechanism has significantly improved compared to 2009.
- A special administrative structure with a lifespan of not more than 24 months has been set up, in order to implement an intensive tax anti-evasion plan. The structure is made up of five task forces, coordinated by a steering committee under the instructions of the Minister of Finance. The anti-evasion plan is focused on five key areas :

    1) Implementation of the new tax law.

    2) Implementation of an intensive debts collection program.

    3) Secure greater control over the top 1.000 tax-payers.

    4) Tackle evasion over high wealth individuals and self employed.

    5) Introduction of a systematic approach to filing enforcement.

In cooperation with the Technical Assistance of IMF, detailed action plans, which include specific activities and milestones, have been prepared and approved by the Steering Committee. Progress reports of the five anti-evasion task forces are being published, as of end March, on a monthly basis, including a set of progress indicators.

- Reorganisation of human resources with the appointment of new directors in most of the local tax offices.

Increasing tax arrears collection

Moreover, the Ministry of Finance has also initiated a number of legislative interventions and actions to increase collection of tax arrears. The major legislative interventions in this context include:

- Expansion of the scope of the provisions for clearing on reciprocal counterclaims between individuals or legal entities and the tax system.
- New provision to allow central tax administration to set up compulsory collection procedures (including confiscation), which was previously under the exclusive competence of decentralised tax agencies.
- Suspension of the existing ad hoc procedures for the settlement of tax arrears and establishment of horizontal settlement rules, including discounts and repayment in instalments.

Also, since May 2010 the Ministry of Finance initiated the implementation of a formal project plan, to support and increase the collection of tax arrears, targeting three key objectives: maximisation of revenues coming from arrears, improvement of the MIS system and data matching system, and business re-engineering and collection procedures redesign. As part of the implementation of the project plan:

- A number of data cross-checking activities have been designed and the reports produced have been thoroughly analysed.
- A specialised working team has been established to work on planning a number of actions to enforce collection, under specific execution procedures. This working team, as of October 2010, has become one of the task forces implementing the tax anti-evasion plan (see above).
- Collection enforcements to small and targeted groups of taxpayers identified through the data matching analysis process have been undertaken by the working team in order to test collection methodologies, the efficiency of existing procedures, debtors' reaction and the effectiveness local tax offices.
- Mechanisms regarding oversight and monitoring of the progress of pilot activities are being developed on a systematic basis.

Improving auditing methods

- Re-orientation of the auditing forces of local offices by intensifying the provisional controls that have proven to be more effective in improving VAT compliance and increasing revenues.

- Tax settlement of past financial years to release audit and administrative resources from tax disputes and promote collection of tax arrears (Tax Settlement Law 3888/2010). The purpose of the settlement is to free up auditing resources by unblocking the cluster of pending tax cases and investigations, draw a clear line at past practices and foster and promote a new sense of tax payer compliance and a relationship of trust between citizens and the State.

Changes in the judicial system: Acceleration of tax proceedings

Significant institutional changes have been adopted aiming to shorten the trial timeframe in tax disputes, to accelerate the tax proceedings, to enable the tax authorities to pursue tax collection in a timely and effective manner and to prevent the abuse of judicial procedures for the purpose of delaying tax payment. These changes (coupled with increased costs for prepaid trial fees, which reduce the incentive to make unjustified appeals to the Courts) include:

- Reducing the duration of the interim order *(injunction)* of the Administrative Court.
- Clarification of the burden of proof and the prerogatives (powers) of the Administrative Court when a judge examines the suspension of a tax trial.
- Change of jurisdiction for cases of more than 150,000 euros from single judge Court to three judges Court.
- No rescissions for formal errors and non-substantial defects of tax administration decisions.

New tax law

In April 2011, the Greek Parliament adopted legislation that aims at completing the legal framework and thus furnishing the system with the legal tools necessary for the efficient conduct of tax audits, and the overall functioning of the system. Through the new tax bill, the Government seeks to establish a strict, fair, and reliable tax system, which rewards and encourages compliance, while protecting the taxpayer and the public interest by preventing fraud and tax evasion. The new law includes measures to combat tax evasion and tax avoidance, to reorganise audit and enforcement mechanism and improve the tax framework.

In particular, the new law proposes an integrated framework of institutions that will work towards supporting and reinforcing efforts to effectively capture and tackle tax evasion. These institutions include:

- An Operational Programme against tax evasion: a three-year action plan to combat tax evasion is established, which will include specific actions and measurable targets. The first Operational Programme has been presented by the Ministry of Finance in April 2011 (see below).
- An Attorney for Economic Crime: the dedicated Attorney-General for economic crime is competent to conduct preliminary investigation operations throughout the country and to supervise, coordinate and guide the conduct of investigations by general or special investigative staff.

Moreover, the new law provides for changes in the institutional framework in order for a swift and effective sentence for criminal offences of fraud in order to ensure tax compliance:

- Criminal prosecution for withholding VAT (above a certain amount), on the basis of misappropriation of funds entitled by the government.
- Similarly, criminal prosecution for unpaid and overdue taxes due to the State, if the delay in payment exceeds a reasonable time of tolerance.
- Suspension of sentence in court is not permitted for major fraud crimes before taxes due are paid up.
- Conversion of penalty for crimes of significant evasion is not permitted before taxes due are paid up.
- The appeal against first instance decision does not suspend enforcement of the penalty before taxes due are paid up.
- Temporary detention to be possible for tax-related crimes if there is evidence that the crime may be repeated.
- Priority is given to audits (risk analysis) of low income declarations of particular sectors of freelance professionals.
- When an administrative settlement is not achieved and appeal is made to the courts for tax differences, the rate of the initially assessed amounts increases from 25% to 50% of the disputed principal tax, surcharge, and other taxes.
- Introduction of an Electronic Receipts Card.

The new law also provides for the restructuring of the selection, recruitment and assessment of organic units of the Ministry of Finance that are crucial for carrying out audits and for collecting revenues. The purpose of these provisions is to establish an effective process for selecting personnel who will staff the relevant organizational units of tax and audit services. Moreover, the law provides for the reorganisation of the Directorate General of Tax Audits. The aim of the reorganisation is to familiarise audit services with the use of modern audit tools, new methodologies and international auditing standards; and also to enable the DG to effectively monitor (at a central level) the operation of the decentralised tax audit services.

Moreover, the law provides for the establishment of an “Internal Affairs Department” in the Ministry of Finance. Its mission is to collect, process, evaluate and use information and data in order to investigate any involvement of officials of the Ministry of Finance in actions of corruption, bribery, etc. and the detection and prosecution in cooperation with the Attorney of Economic Crimes. The Internal Affairs Department will carry out the audits of the financial situation of the Ministry of Finance staff, as well as of staff of entities under the supervision of the Ministry.

Furthermore, according to the new law, a new department for “International Cooperation in the field of direct taxation” is established in the context of the Directorate of International Economic Relations of the Ministry of Finance. The scope of work of this new department includes:

- Exchange of information and enhancing mutual administrative assistance implementing international agreements.

- Conducting negotiations between Greece and other countries for the conclusion or revision of international agreements.
- Cooperate with GSIS, the Directorate General of Tax Audits, the Financial Crimes Unit, and any relevant tax or supervisory authority or authority involved in the collection and processing of information coming from abroad (government sources, financial institutions etc.).
- Harmonisation of the domestic law with secondary European legislation under the authority of the department.

In order to improve the efficiency of the auditing system, the law also foresees amendments of the existing provisions of the Income Tax Code and VAT code in order to allow for desk audits based on risk criteria. The objective is to minimise contact between the supervisory authorities and tax payers, to accelerate audits and to make full use of contemporary systems for collecting and processing tax information, such as the recently launched MIS ELENXIS.

Regarding the removal of tax secrecy and disclosure of debtors and offenders, the new bill gives the ability to the Minister of Finance to waive confidentiality in tax affairs of:

- tax debtors, if they have outstanding debt and delayed payment for periods exceeding one year and the debt owed exceeds a certain amount.
- offenders of the provisions of the tax law, when they issue or use false or fictitious documents, depending on the severity of the offence.

Finally, the law provides for the establishment of a procedure that will separate arrears into two categories: arrears in the state of "receivable" and arrears that are "irrecoverable". The formulation of rules by which overdue debt is distinguished as "receivable" and "irrecoverable" will be based on specific, transparent criteria that may also allow for the central tax administration to draw conclusions on the causes of non-recovery. Under irrecoverable debt are classified arrears for which all means to identify sources of repayment have been exhausted.

The law provides also for the establishment of a special Body of Tax Arbitrators (BTA) as an independent authority. The scope of the BTA is the arbitral settlement of tax disputes when the object of the dispute exceeds one hundred fifty thousand (150,000) euro. Tax referees must be persons of recognised standing and professional competence. The law provides that the Tax Arbitration Unit undertakes cases upon request of the taxpayer and that disputes are settled by three arbitrators; the chairman of the arbitrators and the arbitrators appointed by the Chairman of BTA. The arbitration hearing for resolving a dispute cannot take more than two (2) months and the arbitration decision is issued within three months from the discussion of the case. If the deadline expires, the power of arbitrators to resolve the dispute automatically ceases and the deadline for requesting an administrative dispute resolution and appeal is revived; unless the parties commonly agree to extend the deadline for some time. The law foresees that the Tax Arbitration Unit has the powers of the tax or customs authority as far as the administrative resolution of disputes is concerned. If the request for arbitration becomes totally or partially accepted, the case is forwarded to the administrative court to annul or modify the contested action.

Presentation of a three-year tax anti-evasion plan

The Ministry of Finance announced in May 2011 its first three-year National Action Plan for Combating Tax Evasion. The Plan was agreed by an Inter-Ministerial Committee that will be responsible for its implementation and monitoring. The Action Plan places the initiatives implemented by the Ministry of Finance over the last 18 months into a wider framework, outlining a timetable of coordinated actions by the relevant Government Ministries for the period 2011–13 and sets specific targets. These actions will directly address the main challenges facing the Greek tax system: i) modernizing the operations of the tax collection mechanism, ii) the identification and exemplary punishment of large-scale tax evasion, iii) enhancing the efficiency of revenue collection and iv) better cooperation with citizens to improve voluntary compliance.

In particular, the action plan provides for the fundamental reorganisation of the tax administration structure based on best operational practices with the assistance of international advisors. The national network of tax offices will be strategically restructured resulting in fewer but reinforced tax offices, which will be monitored on a monthly basis based on published indicators and specific sanctions for underperformance. Modern IT and information management systems will be further introduced in tax and customs offices to facilitate cross-checking and prevent smuggling, while new codes of conduct and rigorous staff hiring and assessment criteria have been set for inspectors.

The identification and punishment of large-scale tax evasion will be reinforced through more extensive cooperation and information sharing with tax agencies overseas regarding bank deposits held by Greek citizens.

Tax collection will be accelerated by radically streamlining the necessary procedures and consolidating responsibility in one body within the Ministry of Finance that will coordinate and better target all enforcement, monitoring and tax compliance efforts. Moreover, a legislative amendment to allow the publication of personal details of individuals with large arrears has been passed, and closer collaboration between tax and social security contribution collectors and other public bodies with access to relevant information is pursued.

The Action Plan also includes a number of actions that will make tax administration much more user-friendly so as to increase voluntary compliance and citizen participation. The administrative cost of compliance will be reduced with simpler and automatic procedures such as electronic tax declarations, while tax legislation will be simplified, and the availability of tax advisory services for citizens and awareness campaigns will be increased.

As part of this plan, audits of large-scale tax payers, high wealth individuals and self-employed will be accelerated and the collection of tax arrears will be stepped up.

5.2 Reforms planned for the period ahead

In 2011, the Greek government continues its efforts to improve the quality of public finances though the implementation of a comprehensive and sustained strategy including measures on both the expenditure and the revenue side. These institutional reforms will support fiscal consolidation efforts, enhance spending control and improve tax compliance in order to ensure that all share the tax burden. The main elements of this strategy are outlined below.

5.2.1 Measures on the expenditure side

Unified remuneration system for the public sector and further reduction in public sector employment

One of the major reforms planned for 2011 in order to improve the quality of public finances is the reform of the public wage bill. This reform aims at simplifying public sector remuneration schemes and at reducing excess employment in the public sector by cost efficient means. The reform includes the establishment of a simplified remuneration system covering basic wages and allowances that will apply to all public sector employees. The new system will lead to a system where remuneration reflects productivity and tasks, while aiming for some decompression of wages across grades and specialized career streams. Government has prepared a report on the structure and levels of remuneration and employment in the public sector, which unveiled a complex system of wages and benefits, and significant misallocation of human resources and has presented a detailed action plan with a timeline to complete and implement the simplified remuneration system. Relevant legislation will be adopted by end June and the implementation of the plan will commence by mid-2011.

Moreover, the government aims to reduce public sector employment by 150,000 or about 20 percent by 2015. This target will be achieved through the application of attrition, reductions in contract employment, and involuntary redundancies. Redundant employees will be identified from units targeted for closure or merger. Beyond the public sector, in the case of state enterprises, redundancies will be identified by reference to measures of spare capacity or benchmarking against similar companies in Europe. Excess public employees will be either separated immediately or furloughed into a separate labour reserve. Time spent in the reserve would be limited to no more than 12 months at no more than 60 percent of their wage (excluding overtime and other extra payments). Transfers from the labour reserve to other public sector entities will be possible, but only under the attrition-related hiring limit, and with a positive evaluation of the employee from ASEP. At the end of the twelve month period, separation would be mandatory.

Finally, the publication of monthly data on staff movements (entries, exits, transfers among entities) of the several government departments, which will commence in July 2011, will contribute to enhanced monitoring of public sector employment developments.

Functional review of public administration at central level and of existing social programmes

The Greek government has launched independent functional reviews of the public administration at central level and of existing social programmes, which will be conducted by the OECD. The review on public administration at central level aims at taking stock of the use of resources to carry out government functions and identifying measures to rationalise the organisation of public administration (through the identification of services which can be rationalised either due to private sector alternatives or outmoded mandate), generate productivity gains (through eliminating overlapping responsibilities) and quantify possible fiscal savings. The review will encompass horizontal issues related to planning, organisation, staffing and control functions and will also include specific studies for all main ministries and key public bodies. At the same time, the objectives of the independent functional review of existing social programmes is to assess their effectiveness and appropriateness, to identify the least effective ones and propose ways to rationalize social programs by eliminating duplication and making them more targeted, and to quantify possible fiscal savings. The reform of both public administration and of the existing social programmes will be implemented in the context of the 2012 budget.

Further improvements in the fiscal management framework

Efforts to further improve the fiscal management framework and to put in place more effective spending control continue in 2011 and include the following actions:

- In order to enhance the implementation of commitment registries, the Ministry of Finance will undertake inspections in line ministries and general government entities with the largest arrears in order to ensure the full application of registries. As a next step, commitment registries will be expanded to cover the investment budget. Moreover, coordination committees will be established for budget preparation and fiscal reporting, which will have performance targets and will regularly prepare progress reports.
- Completion of the pilot phase of the project "Integrated System of Fiscal Reporting of General Government Agencies in accordance with the European System of Accounts 1995 (ESA 95) and standard GSFM2001" for monthly financial monitoring and integration of about 503 general government entities, which comprise 95% of the general government.
- Extension of the Fiscal Management Information System (FMIS) and modern fiscal auditing: This project includes the extension of support services provided by MIS and additional changes in the operation of MIS as a result of the implementation of the new fiscal management framework. In addition, in 2012, the operation of the FMIS will be gradually transferred, on a pilot basis, to line Ministries, which will be responsible for the implementation of their budget. This will enhance accountability of all line Ministries regarding their spending and improve fiscal controls. The full implementation of the new system will start in 2013. This new system will be complemented by the introduction of enhanced auditing services by the General Accounting Office in accordance with Law 3492/2006. In particular, the General Directorate for Fiscal Auditing at the GAO will be responsible for the supervision of budget management by all general government entities, will perform controls of its adequacy and will impose sanctions, where appropriate.

5.2.2 Measures on the revenue side

Efforts to increase the effectiveness of tax collection are further intensified through the implementation of measures already legislated in the previous period (i.e. new tax law), though the implementation of the recently announced tax anti-evasion plan and through the adoption of new initiatives with the aim to further increase the effectiveness of tax legislation and auditing methods, improve the efficiency of tax administration and further develop Management Information Systems. To better monitor the implementation of medium term reforms, the Ministry of Finance will prepare in July a strategic plan setting the priorities and timeline for reform of the tax administration. Moreover, a new tax law will be adopted in September 2011, including further measures to simplify the tax system, broaden bases and reduce tax rates in a fiscally-neutral manner. In addition, to speed up judicial appeals, dedicated court chambers for tax cases will be operational by end-September 2011.

Increasing the effectiveness of tax legislation and auditing methods

- Codification of all tax legislation and abolition of the Code of Books & Records. A Special Standing Committee has been established to study the incorporation of necessary provisions of the Code under abolition in other tax Codes. The codification of all tax legislation will follow thereafter, aiming at simplifying the tax system.
- Establishment of the special Body of Tax Arbitrators (BTA) as provided in Law 3943/2011. As a result, audits to individuals and enterprises will be conducted on the basis of the outcome of cross-checkings using sampling techniques. The General Directorate of Tax Audit will present on an annual basis a plan of regular, temporary and preventive audits to be conducted the next year. The auditing program for 2011 is being prepared and will be implemented soon. This program will provide specific objectives for each category of audit (regular, temporary and preventive audits) and tax (income tax, real estate tax etc.) and will incorporate the proposals of the five Task Forces. New targets for audits will be imposed to each Tax Office Center and the performance of auditors and audit centers will be regularly assessed.
- Implementation of the key reforms of the new tax law, including reassessing tax auditors' qualifications and hiring new auditors.
- From 2011 onwards tax declarations of specific categories of taxpayers will be submitted exclusively in electronic format, through the internet.
- Develop a procedure to 'freeze' the VAT registered entities that have been inactive for a long time, in a specific repository, which will permit the reactivation after the financial obligations of the tax payer have been fulfilled.
- Measures to combat smuggling of fuel, tobacco and alcohol. A special working group has been established to propose new initiatives in this area.

Increasing the effectiveness of tax administration

Reforms to improve the effectiveness of tax administration are ongoing. The overhaul the administration into a more modern functionally-based organisation will focus on removing identified barriers to effective administration and will focus primarily on:

- Re-organisation of the structure of tax administration at the local level through closing down and merging local tax offices (about 200 local tax offices, which have been identified as inefficient, will be merged, or closed by the end of 2011), reorganising and prioritising their core operations and removing non-tax business from local tax offices. In addition, in order to improve tax administration at the central level, the Ministry of Finance will implement measures such as merging similar headquarters services, reducing the fragmentation of the core central operations and reallocating resources according to needs.

- Establishment of a central directorate general for debt collection, and a large-scale tax payers unit.
- Implementation of the new organisational structure of the General Directorate of Audit as provided in Law 3943/2011.
- Introduction of a more flexible human resource management system to support modern performance management, as well as an effective anti-corruption policy and a more flexible recruitment process.
- Re-organisation of services responsible for collecting tax arrears. The aim is to upgrade the operational structure, centralise services, staff services with qualified personnel, set specific targets and evaluate performance.
- Minimization of the contact of individuals with tax officials.
- Setting up an independent fast track administrative dispute resolution process to deal rapidly with large dispute cases (i.e. within 90 days).

Increasing tax arrears collection

In addition to the reorganisation of services responsible for collecting tax arrears, efforts to increase the collection of tax arrears focus mainly on the implementation of measures already legislated in 2011, including:

- Classification of tax debts into two categories: collectibles and non-collectibles. This includes the design of new procedures and targets set for each local tax office regarding the classification of non collectible debts.
- Replacing the tax clearance certificate by a debt certificate under specific circumstances, in order to facilitate the collection of debts by offsetting debt amounts of debtors with their claims from General Government.
- A new procedure for suspending the operation of enterprises with tax arrears.

Improving Management Information Systems

The GSIS implements a number of new MIS that expand its current electronic systems to improve registry of taxes and services to tax payers. They also add new electronic operations and back-office services to tax administration and auditing authorities. The systems that GSIS is launching in 2011 are:

- New Taxisnet which expands web services to taxpayers and supports the provision of obligatory submission of declaration from 2011 onwards.
- Expenses card which will be used by citizens in their purchases allowing for an electronic registry of their receipts collection for their own use and for the use of the GSIS and tax administration in cross-checking of enterprises declarations.

- ICIS, which is the MIS for the customs services that supports electronic exchange of information between customs within EU and the Greek customs services with their central administration.
- Interconnection with other public services in order to collect information of economic interest. Ad hoc systems are set up and operate, while the GSIS in cooperation with the line ministries sets up permanent system to harmonize registration and electronic exchange of information.

6 Sustainable Public Finances

6.1 Introduction

Over the last decades, life expectancy has steadily been rising in the EU, with an increase of up to two and a half years per decade. Assuming that the reduction of mortality continues at this pace, this would mean that life expectancy at birth for men would increase by 8.5 years and by 6.9 years for women over the next fifty years. The combination of rising longevity and lower fertility will lead to a severe aggravation of the old-age dependency ratio. The size of the working-age population is projected to shrink and this is expected to reduce potential labor supply and thus economic growth.

Population aging as a result of the declining population growth rate and the decreasing birth and morbidity rates has therefore challenged enormously the sustainability of Pay-As-You-Go social security schemes typically encountered across the European Union and called for a minimization of the fiscal burden through tax reforms and benefits restructuring.

The projected costs of adverse demographics are particularly salient in Greece (along with Italy, Spain and most recent EU entrants). Faced by a strong increase in the old age dependency ratio, most Member States have over the last decade reformed their pension systems to retain sustainability as well as adequacy and to ensure fairness between and within generations and between men and women. The adopted reforms were principally aiming at bounding considerably the growth in projected public pension expenditure over the long-term, as appears from the 2009 Ageing Report. Thereby reforms may greatly improve the ability of public schemes to continue to provide adequate pension benefits in a sustainable manner. Nonetheless, public pension expenditure in the EU as a whole is projected to rise by 2 ½ p.p. of GDP by 2060, which equals an increase of 23% on average of public pension expenditure, and in some Member States substantially more.

6.2 Pension Reform

Greece faced a significant challenge with regard to ensuring the long-term sustainability of its public finances at the back of its ageing population and the additional public debt crisis induced risks, and had been assessed to be at 'high' risk in this regard by the Commission/Council. The projected increase in pension expenditure over the long-term at 12.4%[3] was dramatically higher in Greece than the EU average (2.5%).

In view of the above, the Greek government initiated a pension reform which resulted in the adoption by Parliament of two amended bills (on public and private sector arrangements) in July 2010. The reform has introduced a new, transparent system to strengthen the link between contributions and benefits and aims at reducing the projected increase in pension expenditure over the next 50 years to below 2.5% of GDP.

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[3] Estimate based on 2005 data (Source: The 2009 Ageing Report, Ageing Working Group / Economic Policy Committee, European Economy 2, 2009)

The above target is underpinned (as agreed in May 2010) by a comprehensive study conducted by the National Actuarial Authority (NAA) of the long-term impact on the sustainability of public finances. The actuarial study for the main pension plans (covering the basic pension and earning-related primary scheme) has already been completed, while actuarial projections for supplementary/auxiliary pension schemes are due by September 2011, the latter schemes accounting for a 25% over the total pension expenditure.

From the preliminary results of the actuarial studies (to be peer-reviewed by the EPC-AWG), it seems that the overarching quantitative objective of the pension reform, that is, to limit public pension expenditure increase in 2009-2060 to 2.5% of GDP) is met, as far as the share of the main pension plans is concerned, i.e., about 75% in the total expenditure.

6.2.1 Reform of Main Pension Plans

On 15 July 2010 the Greek Parliament adopted the Law 3863 which, in addition to the measures prescribed by the Economic Adjustment Program (reduction of the highest pensions, abolition of Easter, summer and Christmas bonuses, freeze in indexation), introduces drastic medium term savings in pension expenditure in 2010-2013 as well as a comprehensive pension reform, with a view to ensuring its medium and long term sustainability. The reform brings in:

- a unified statutory retirement age of 65 years (including for women as from 1.1.2013)
- a minimum retirement age of 60 years (including for workers in heavy and arduous professions and those with 40 years of contributions)
- creation of an automatic adjustment mechanism linking the retirement age with the increase in life expectancy (from 1.1.2021)
- a gradual increase in the minimum contributory period for retirement on a full benefit from 37 to 40 years
- the introduction of stricter conditions and regular re-examination of eligibility for disability pensions
- a substantial narrowing of the list of heavy and arduous professions (to be in effect as of 1-7-2011)
- a merger of the existing pension funds and a unified new pension system for all current and future employees
- an abolition of the special rules for the persons insured before 1993 (while retaining acquired rights)
- an amendment of the pension award formula in the contributory based scheme to strengthen the link between contributions paid and benefits received (with accrual rate limited to an average annual rate of 1.2%)
- an extension of the calculation of the pensionable earnings to the entire lifetime earnings (while retaining acquired rights)

- a reduction of the pension benefits (by 6% per year) for people entering retirement between the ages of 60 and 65 with a contributory period of less than 40 years
- the creation of a means-tested minimum guaranteed income for pensioners (i.e. for those with no less than 15 years of insurance) and for elderly people above the statutory retirement age who fulfill certain criteria regarding their income and their residency in the country
- the development of control systems combating social insurance contribution evasion, the implementation of a single control system of pension payment and the implementation of a monitoring system for forced collection of social contributions
- a Solidarity Contribution for Pensioners concerning relatively high pension incomes (above 1400 €) which is kept in a separate account in order to cover deficits of different sections of the basic pension system.

Along the same spirit, by virtue of law 3865/2010 the government essentially adopts most of the above changes for the public sector employees where applicable and settles the issue of the equalization of retirement age between men and women in the public sector in response to the respective ruling by the European Court of Justice.

6.2.2 To Complete the Pension Reform

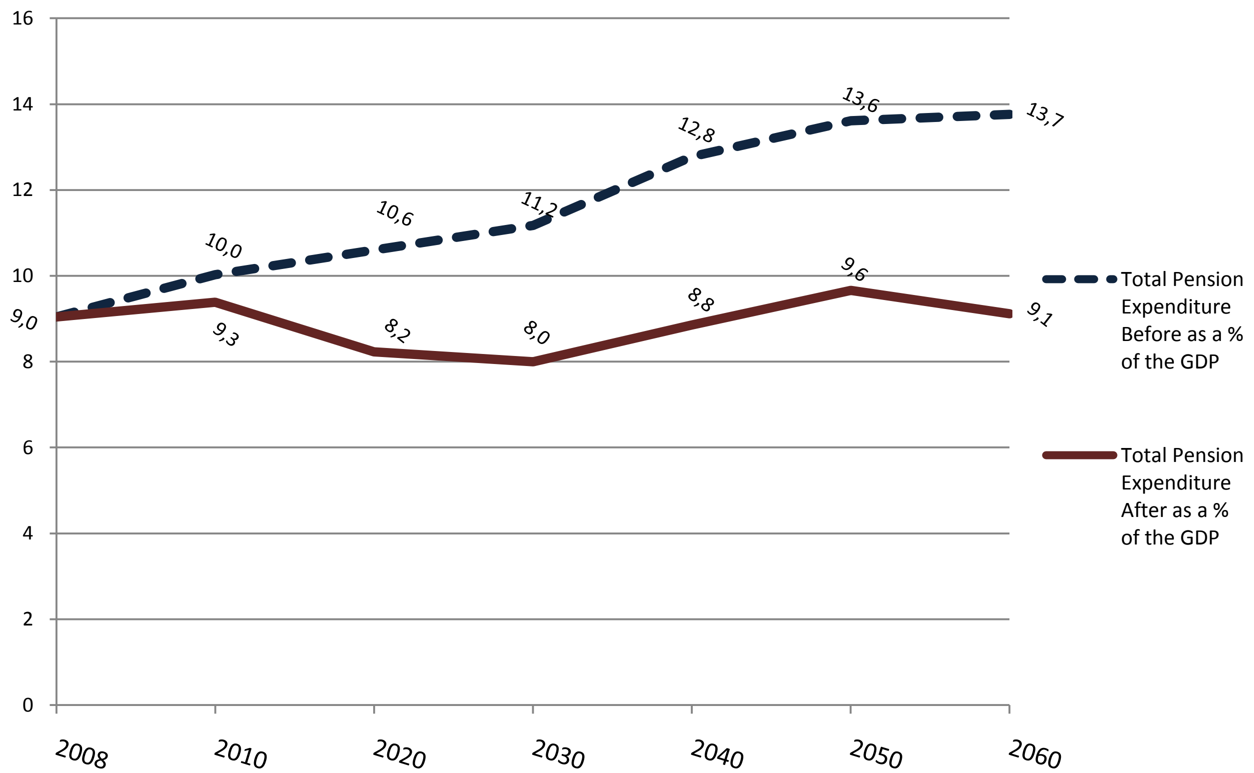
- An in-depth revision of the functioning of secondary/supplementary public pension funds is in progress. The aim of the revision is to stabilize pension expenditure, guarantee the budgetary neutrality of these schemes, and ensure medium- and long-term sustainability of the system. The revision should achieve:
  - stabilization of the current spending, through appropriate adjustments to be made from 1 January 2012;
  - long-term sustainability of secondary schemes through a strict link between contributions and benefits.
- If the projections by the National Actuarial Authority show that the projected increase in public pension expenditure would exceed the limit of 2.5 percentage points of GDP over 2009-60, the Government will also revise the main parameters of the pension system provided by Law 3863/2010. The revision is designed in close consultation with the European Commission, the IMF and the ECB staffs.
- In addition to that, the Government is currently reviewing the substantially revised list of heavy and arduous professions that covers no more than 10 percent of the labor force. The new list of Difficult and Hazardous Occupations shall become effective immediately upon adoption (from 1 August 2011) to all current and future workers.
- The Bank of Greece commits not to grant pension privileges to its staff and to revise the main parameters of its pension scheme to align them with those of IKA.

➢ By the first quarter 2012, the Government implements the reform of the secondary/supplementary pension schemes, by starting the calculation of benefits on the basis of the new notional defined-contribution system. The parameters of the new secondary notional defined-contribution system ensure long-term actuarial balance, as assessed by the National Actuarial Authority.

➢ Government freezes nominal supplementary pensions and reduces the replacement rates for accrued rights, based on the actuarial study prepared by the National Actuarial Authority. In case the actuarial study is not ready, replacement rates are reduced, starting from 1 January 2012, to avoid additional deficits.

The graph below shows pension expenditure before and after the reform, in total:

Evolution of total pension expenditure as a percentage of GDP before and after reform



Source: National Actuarial Authority, 2011, based on 2008 data

6.2.3 Reform of Supplementary / Auxiliary Plans

As mentioned above, the overarching quantitative objective of the pension reform is to limit public pension expenditure increase in 2009-2060 to 2.5% of GDP. This overarching objective refers to the overall pension spending (including basic, contributory, supplementary and any other related scheme, including lump sums at retirement), and it is currently secured only as far as the 75% of pension expenditure is concerned (main pension plans).

With regard to the remaining 25%, pension projections including the supplementary / auxiliary / secondary schemes should be prepared by the NAA by the end of the Q1 2011 (as per the MoU- after 2nd review). In an older actuarial study by the NAA endorsed by the EPC in 2008, the pension expenditure of supplementary / auxiliary schemes plus "others" was projected to increase significantly by 2060 (by about 5 percentage points of GDP[4]). A reform of the supplementary system is therefore paramount in order to meet the overarching objective of limiting the increase of future public pension expenditure. The current deficits in several supplementary funds threaten the viability of these funds already in the short- to medium-term. This requires an in-depth revision of their functioning and their generosity.

Therefore, in order to complete the reform of the pension system in Greece, the following measures are deemed necessary and appropriate in order to guarantee the budgetary neutrality and ensure the long term sustainability of the supplementary / auxiliary schemes and thus meet the overarching objective of limiting the increase of future total public pension expenditure below 2.5% between 2009 and 2060:

The Government proceeds with an in-depth revision of the functioning of secondary / supplementary public pension funds, including welfare funds and lump-sum schemes. The aim of the revision is to stabilize pension expenditure, guarantee the budgetary neutrality of these schemes, and ensure medium- and long-term sustainability of the system. The revision aims to achieve:

- a further reduction in the number of existing funds including through mergers of funds;
- elimination of imbalances in those funds with deficits;
- stabilization of the current spending at sustainable level, through appropriate adjustments to be made from 1 January 2012;
- long-term sustainability of secondary schemes through a strict link between contributions and benefits.
- Calculation of benefits on the basis of a new “notional defined contributions” (NDC) system.

The reform of the secondary/supplementary schemes is designed in consultation with European Commission, ECB and IMF staff, and its estimated impact on long-term sustainability is validated by the EU Economic Policy Committee. The parameters of the new secondary notional defined-contribution system ensure long-term actuarial balance, as assessed by the NAA.

In addition to that, the schemes for which lump sums paid on retirement are out of line with contributions paid are identified, and payments are adjusted accordingly.

[4] See EC-EPC report with country fiche on pension of the NAA

6.3 Healthcare reform

Greece is currently running a large budget deficit and the fiscal consolidation effort to bring government revenues and spending into line will have consequences for GDP growth, thus the healthcare sector in several ways.

6.3.1 Recent trends of public expenditure on health and on pharmaceuticals

Total expenditure on health as a percentage of GDP (9.7% in 2008) is about the EU average (9.6% in 2008) having increased from 8.4% in 1998. Public expenditure on health as a percentage of GDP is below the EU average (5.9% compared to the EU average of 7.4% in 2008) although it has increased from 4.4% in 1998. The rise in expenditure may therefore be partly due to an increase in public expenditure.

Total expenditure on pharmaceuticals, both as a percentage of GDP and as a percentage of total current health expenditure, has shown a consistent increase over the last decade (from 1.2% in 1998 to 2.4% of GDP in 2007; from 14.5% in 1998 to 25.8% of total current health expenditure in 2007). These values are above the EU average (respectively 1.5% of GDP and 17.1% of total current health expenditure in 2007). The public share of the total expenditure on pharmaceuticals has grown from 60% to 80% in that period. Public expenditure on pharmaceuticals as a % of GDP (1.9%) and as a % of total current health expenditure (20.4%) is considerably above the EU average (1% and 11.5% respectively). [5]

6.3.2 Expenditure prospects: population ageing and future health status

Population is projected to stay more or less constant from 2008 to 2060. Life expectancy is projected to increase by 7.4 years for men and 6.1 years for women. The share of the old (65+) is projected to increase by 13% and the share of the very old (80+) by 20.6% (greater than the EU average of 13% and 7.8% respectively) from 2008 to 2060. As a result of ageing, health care expenditure is projected to increase by 1.5% of GDP (slightly below the average change in the EU of 1.7 % perhaps because the population remains constant). In Greece, good health (translated by a constant health scenario) reduces the projected expenditure increase by half (from 1.5 % to 0.7 %), highlighting the importance of improving health behavior.[6]

6.3.3 Upcoming Reforms

It is, however, critical to consider the effect of the recent developments in the healthcare provision sector due to the economic crisis hinting to a considerable shift of a large part of the

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[5] European Commission and Economic Policy Committee (AWG) Joint Report on Health Systems, European Economy, Occasional Papers, 74, December 2010

[6] European Commission and Economic Policy Committee (AWG) Joint Report on Health Systems, European Economy, Occasional Papers, 74, December 2010

healthcare provision burden to the public sector[7], thus resulting in higher public healthcare expenditure. This is due both to increased private savings for precautionary purposes (especially in the medium term) but also due to liquidity issues from the households' side. To add insult to injury, any fiscal consolidation effort could have an adverse impact on the health sector. This is why any government intervention must be carefully planned.

During the last year, and notably in the fourth quarter of 2010, the Government stepped up its efforts to accelerate the pace of streamlining earlier carefully scheduled policies and processes conducive to a major law regarding the overhaul of the healthcare sector. The first step already undertaken in this direction includes measures to enhance the monitoring mechanism of health expenses, while the bulk of institutional reforms is enacted by virtue of law 3918/2011.

The Government continues to implement the comprehensive reform of the health care system started in 2010 with the objective of keeping public health expenditure at or below 6 percent of GDP, while maintaining universal access and improving the quality of care delivery. Policy measures include the integration of primary healthcare, strengthening central procurement and e-health capacity.

This new coherent legal framework will put together all individual pieces pertaining to healthcare reform, and place the latter on solid footing: the very first chapter of the new law defines the specifics of the new legal framework concerning procurement of health supplies and drug tenders. Procurement will be planned at a regional level via the development of Regional Programs for Goods and Services. These Programs have to be adopted by the Co-ordination Committee for Procurement (CCP), which is responsible to assign a contracting authority and the tender mechanism for each type of procurement. A significant contribution of this law is the possibility of CCP to select as contracting authority a company or a private agency, achieving economies of scale and overall efficiency.

This new procedure will also benefit from the already implemented Price Monitoring Tool ("Paratiritirio", powered by the Health Procurement Committee (EPY) to be upgraded into a "Specifications Committee") that already includes 18,000 items and is constantly updated and enriched through the collection and analysis of tenders and technical specifications published by hospitals. EPY (in cooperation with EKEVYL) is completing the process of assigning unique codes for pharmaceuticals, equipment and miscellaneous health materials in line with GMDN.

One equally important action concerns the establishment of new systems for the management and pricing of pharmaceuticals that favour higher use of generic medicines, including an integrated system of electronic monitoring of doctors' prescriptions (e-prescription). The e-prescription project moves forward swiftly, and significant revenue and efficiency boosting initiatives are expected on the social security funds' end: an electronic prescription system is already operative in the healthcare sectors of two main funds (OAEE, IKA), and it will be full-fledged across all health care sectors of SSFs as well as hospitals by the end of 2011.

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[7] Source: Ministry of Health and Social Solidarity, General Secretariat of Health

The completion of the e-prescription project will feed into a broader project of streamlining prescription procedures within hospitals and social security funds, covering all medical acts (medicines, referrals, diagnostics, surgery) in both NHS facilities and providers contracted by health care funds, and is expected to have beneficial complementary effects with the imminent completion and publication of new prescription guidelines (including prescribing by active substance) for physicians. The first set of prescription guidelines dealing with oncologic prescriptions, i.e., those carrying the highest price tags, is already published, and all prescription guidelines will soon be public. Furthermore, the uniform e-prescribing system will integrate the diagnostic tests referral platform currently used by OPAD with the aim to extend it across all healthcare provision organizations.

A negative list of drugs has already been publicized while the positive list of drugs is already finalized by the National Drug Organization (EOF) and it is already in operational mode.

Another major milestone of the new healthcare reform bill consists in pooling all healthcare funds in order to ensure that a uniform / coherent system of healthcare provision is vigorously pursued. A Consortium of social insurance / healthcare provision funds (dubbed EOPYY) will henceforth act as a unique buyer of medicines and health care services for all those insured, thus acquiring higher bargaining power against suppliers. In addition to that, a process of creating a rational and coherent system of awarding healthcare benefits for all healthcare recipients on the basis of a uniform rule that links efficiently contributions to benefits is underway. It goes without saying that EOPYY will be endowed with, and benefit right from the outset from, all the aforementioned enhanced and streamlined prescription structures.

On EOPYY's governance front, all necessary steps are taken for EOPYY to initiate its operations as planned 6 months after the adoption of Law 3918/2011, including the appointment of the necessary and qualified staff. To this aim, a selection committee is set up and objective criteria are devised to ensure transparent procedures to govern the selection of the management of EOPYY. Members will be qualified experts of recognized standing in health, management and health administration. The new fund will lead to a substantial reduction of administrative staff of at least 50 percent and of contracted doctors of at least 25 percent as compared to the four originating funds combined. The aim is to achieve a ratio of patients per doctor in line with the European average.

As far as drug policy is concerned, by virtue of the new law, it is worth mentioning that the pricing of medicines and all aspects of drug policy are already transferred to the Ministry of Health and to EOF. Moreover, thanks to the draft law's provisions on the new rebate system from pharmacies and wholesale companies, the profit margin of pharmacies on retail prices and that of wholesale companies distributing pharmaceuticals are expected to drop sharply. The complete price list for the medicines in the market will also be published using a new pricing mechanism based on the three EU countries with the lowest prices. The list will be updated on a quarterly basis. In addition to that, the market regulation 40 (17.12.1990) that stipulates a 0.4% contribution of wholesale sales prices in favor of the Panhellenic Pharmaceutical Association will be abolished. Fees for medical services outsourced to private providers are reviewed with the aim of reducing related costs by at least 15 percent in 2011, and by an additional 15 percent in 2012.

Finally, starting from 2012, pharmacies' profit margins are calculated as a flat amount or flat fee combined with a small profit margin with the aim of reducing the overall profit margin to no more than 15 percent, including on the most expensive drugs as defined in law 3816/2010.

It is also important to note that a €5 admission fee for regular outpatient services (increased from €3) across all outpatient clinics of public hospitals is enforced, and an extension of the "all day" operation of hospitals (afternoon shift) has already been put in place in order to develop and improve healthcare services and increase hospital revenues, including with increased copayments of outpatient and diagnostic services. The measure is already in effect in 63 hospitals and will soon be expanded in the remaining ones, pending some formalities.

Another essential change that is underway is the completion of the program of hospital computerization, upgrading of hospital budgeting systems, reforming of management, accounting (including double-entry accrual accounting) and financing systems. The country's largest hospitals and most of the medium-sized ones are already fully computerized with integrated ERP, LIS and RIS system. It is expected that by the end of 2011 all hospitals will be fully computerized. Concerning audited accounts, it is worth noting that 100 out of 130 hospitals already publish audited accounts. By the beginning of October 2011, internal controllers will have been assigned to all major hospitals.

On the NHS reorganization front, a draft law of hospital restructuring for the short and medium term is being tabled in the Parliament with a view to reducing existing inefficiencies, utilizing economies of scale and scope and improving quality of care for patients. The aim is to reduce hospital costs by at least 10% in 2011 and by an additional 5% in 2012 through adjusting public hospital provision within and between hospitals within the same district and health region, revising the activity of small hospitals towards specialization in areas such as rehabilitation, cancer treatment or terminal care where relevant, increasing the mobility of healthcare staff (including doctors) within and across health facilities and health regions and through preparing a joint management/operation system in districts with more than one hospital.

Specific actions related to the rationalization of wages and human resource management in the health care sector will be pursued along the way, following a first draft report presenting the structure (age, specialty, grade, regional distribution), levels of remuneration (including fees provisions to consultants and doctors) and the volume and dynamics of employment in hospitals, health centers, and health funds. This report will be updated annually and be used as a human resources planning instrument. The 2011 report will present plans for the allocation and requalification of human resources for the period up to 2013 as well as providing guidance for the education system.

Finally, an independent Task Force by leading healthcare experts was formed under the auspices of the Minister of Health, and is expected to produce a detailed report on the medium-term prospects and challenges of the Greek healthcare sector along with concrete measures, proposals and quantitative targets. On the basis of this report, an action plan including a timetable for concrete actions will be adopted by October 2011. An implementation report revising the policies implemented so far will follow.

ANNEX: Tables according to the SGP Code of Conduct

Table 1a. Macroeconomic prospects

	ESA Code	**Year 2010** Level Bn euros	**Year 2010** rate of change	**Year 2011** rate of change	**Year 2012** rate of change	**Year 2013** rate of change	**Year 2014** rate of change
1. Real GDP	B1*g	172.2	-4.5	-3.5	0.8	2.1	2.1
2. Nominal GDP	B1*g	230.2	-2.1	-2.1	1.3	3.1	3.1
			Components of real GDP				
3. Private consumption expenditure	P.3	126.7	-4.5	-4.8	-1.2	1.1	1.2
4. Government consumption expenditure	P.3	33.5	-6.5	-8.4	-4.0	-1.0	-0.3
5. Gross fixed capital formation	P.51	28.4	-16.5	-7.1	-2.2	1.1	4.0
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53	0.9	0.5	0.7	0.9	0.9	0.8
7. Exports of goods and services	P.6	36.9	3.8	6.4	6.7	7.2	6.8
8. Imports of goods and services	P.7	54.3	-4.8	-4.2	-3.0	1.6	3.6
			Contributions to real GDP growth				
9. Final domestic demand		-	-7.7	-6.3	-1.9	0.8	1.4
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	0.9	-0.2	0.2	0.0	0.0
11. External balance of goods and services	B.11	-	2.3	2.7	2.5	1.4	0.7

Table 1b. Price developments

	ESA Code	**Year 2010** Level	**Year 2010** rate of change	**Year 2011** rate of change	**Year 2012** rate of change	**Year 2013** rate of change	**Year 2014** rate of change
1. GDP deflator			2.5	1.5	0.5	1.0	1.0
2. Private consumption deflator			4.7	2.8	1.0	1.1	1.0
3. HICP[1]			4.7	2.9	1.0	1.1	1.0
4. Public consumption deflator			-7.4	-2.0	1.0	1.1	1.0
5. Investment deflator			1.0	0.2	1.4	1.7	1.8
6. Export price deflator (goods and services)			4.9	2.1	1.0	1.9	1.7
7. Import price deflator (goods and services)			2.4	3.5	2.1	2.2	2.3

[1] Optional for stability programmes.

Table 1c. Labour market developments

	ESA Code	Year 2010 Level	Year 2010 rate of change	Year 2011 rate of change	Year 2012 rate of change	Year 2013 rate of change	Year 2014 rate of change
1. Employment, persons[1] (000)		4658	-2.1	-3.2	-0.3	0.9	0.7
2. Employment, hours worked[2]							
3. Unemployment rate (%)[3] (000)		628	11.5	14.5	15.0	14.5	14.0
4. Labour productivity, persons[4]			-0.4	0.5	-0.1	0.4	0.3
5. Labour productivity, hours worked[5]							
6. Compensation of employees bn euro	D.1	83.5	-5.8	-4.7	0.1	0.4	0.5
7. Compensation per employee		27.8	-2.8	-1.8	0.1	0.1	0.3

[1]Occupied population, domestic concept national accounts definition.

[2]National accounts definition.
[3]Harmonised definition, Eurostat; levels.
[4]Real GDP per person employed.
[5]Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	Year 2010	Year 2011	Year 2012	Year 2013	Year 2014
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-10.1	-8.1	-5.8	-4.3	-3.6
of which:						
- Balance on goods and services		-8.5	-6.5	-4.4	-3.1	-2.5
- Balance of primary incomes and transfers		-3.3	-3.5	-3.5	-3.4	-3.4
- Capital account		1.7	1.9	2.1	2.2	2.4
2. Net lending/borrowing of the private sector	B.9	0.4	-0.7	0.1	0.1	-1.1
3. Net lending/borrowing of general government	EDP B.9	-10.5	-7.3	-5.6	-4.4	-2.2
4. Statistical discrepancy		optional	optional	optional	optional	

Table 2. General government budgetary prospects (This table is based on MTFS estimates by GAO)

	ESA Code	**Year 2010** Level Bn euros	**Year 2010** % of GDP	**Year 2011** % of GDP	**Year 2012** % of GDP	**Year 2013** % of GDP	**Year 2014** % of GDP
			Net lending (EDP B.9) by sub-sector				
1. General government	S.13	-24.2	-10.5	-7.3	-5.6	-4.4	-2.2
2. Central government	S.1311	-21.6	-9.4	-7.9	-7.1	-7.6	-6.8
3. State government	S.1312	---	---	---	---	---	---
4. Local government	S.1313	-0.6	-0.25	-0.7	0.3	0.6	0.7
5. Social security funds	S.1314	-2.0	-0.9	0.7	1.3	2.7	3.9
			General government (S13)				
6. Total revenue	TR	89.9	39.1	42.2	43.5	43.2	43.4
7. Total expenditure	TE[1]	114.1	49.6	49.5	49.1	47.6	45.6
8. Net lending/borrowing**	EDP B.9	-24.2	-10.5	-7.3	-5.6	-4.4	-2.2
9. Interest expenditure	EDP D.41	12.8	5.6	6.5	7.6	8.4	9.1
10. Primary balance[2]		-11.4	-4.9	-0.8	2.0	4.0	6.9
11. One-off and other temporary measures[3]			0,4				
			Selected components of revenue				
12. Total taxes (12=12a+12b+12c)							
12a. Taxes on production and imports	D.2		12.0	12.4	12.7	12.9	13.2
12b. Current taxes on income, wealth, etc	D.5		7.2	6.9	7.6	7.5	7.7
12c. Capital taxes	D.91						
13. Social contributions	D.61		10.5	10.5	10.6	10.5	10.9
14. Property income	D.4						
15. Other[4]			9.4	12.4	12.6	12.3	11.6
16=6. Total revenue	TR		39.1	42.2	43.5	43.2	43.4
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]							

(**) Unidentified measures

Selected components of expenditure

17. Compensation of employees + intermediate consumption	D.1+P.2	**14.6**	**13.9**	**12.5**	**11.3**	**10.5**
17a. Compensation of employees	D.1	9.3	9.1	8.2	7.5	7.0
17b. Intermediate consumption	P.2	5.3	4.8	4.3	3.8	3.4
18. Social payments (18=18a+18b)		**23.8**	**23.3**	**22.5**	**21.4**	**20.3**
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131					
18b. Social transfers other than in kind	D.62	23.8	23.3	22.5	21.4	20.3
19=9. Interest expenditure	EDP D.41	5.6	6.5	7.6	8.4	9.1
20. Subsidies	D.3	0.0	0.0	0.0	0.0	0.0
21. Gross fixed capital formation	P.51	3.7	3.1	3.3	3.2	3.1
22. Other[6]		1.9	2.7	3.2	3.3	2.6
23=7. Total expenditure	TE[1]	49.6	49.5	49.1	47.6	45.6
p.m.: Government consumption (nominal)	P.3	18.2	16.7	16.0	15.5	15.1

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

[2]The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

[3]A plus sign means deficit-reducing one-off measures.

[4] P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

[5]Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

[6] D.29+D4 (other than D.41)+ D.5+D.7+D.9+P.52+P.53+K.2+D.8.

Table 3. General government expenditure by function

% of GDP	COFOG Code	**Year 2009**	**Year 2010**
1. General public services	1	10.7	
2. Defence	2	3.6	
3. Public order and safety	3	1.9	
4. Economic affairs	4	5.3	
5. Environmental protection	5	0.7	
6. Housing and community amenities	6	0.4	
7. Health	7	6.0	
8. Recreation, culture and religion	8	0.6	
9. Education	9	4.5	
10. Social protection	10	19.5	
11. Total expenditure (=item 7=23 in Table 2)	TE[1]	**53.2**	

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

Table 4. General government debt developments
(This table is based on the MTFS estimates by GAO)

% of GDP	ESA Code	**Year 2010**	**Year 2011**	**Year 2012**	**Year 2013**	**Year 2014**
1. Gross debt[1]		142.8	156.4	159.8	157.7	150.1
2. Change in gross debt ratio		15.7	13.6	3.4	-2.1	-7.6
		Contributions to changes in gross debt				
3. Primary balance[2]		-4.9	-0.8	2.0	4.0	6.9
4. Interest expenditure[3]	EDP D.41	5.6	6.5	7.6	8.4	9.1
5. Stock-flow adjustment						
of which:						
- Differences between cash and accruals[4]						
- Net accumulation of financial assets[5]						
of which:						
- privatisation proceeds						
- Valuation effects and other[6]						
p.m.: Implicit interest rate on debt[7]		4.1	4.4	5.0	5.4	6.0
		Other relevant variables				
6. Liquid financial assets[8]						
7. Net financial debt (7=1-6)						

Table 5. Cyclical developments

% of GDP	ESA Code	**Year 2010**	**Year 2011**	**Year 2012**	**Year 2013**	**Year 2014**
1. Real GDP growth (%)		-4.5	-3.5	0.8	2.1	2.1
2. Net lending of general government	EDP B.9	-10.5	-7.3	-5.6	-4.4	-2.2
3. Interest expenditure	EDP D.41	5.6	6.5	7.6	8.4	9.1
4. One-off and other temporary measures[1]		0.4				
5. Potential GDP growth (%)		-0.3	-0.9	-0.6	-0.5	-0.2
contributions:						
- labour		-0.1	-0.4	-0.2	-0.2	0.0
- capital		-0.2	-0.5	-0.5	-0.4	-0.4
- total factor productivity		-0.3	-0.5	-0.3	-0.1	0.0
6. Output gap		-5.3	-7.7	-6.1	-4.0	-1.7
7. Cyclical budgetary component		-2.3	-3.8	-3.1	-1.9	-0.9
8. Cyclically-adjusted balance (2 - 7)		-8.2	-3.5	-2.5	-2.5	-1.3
9. Cyclically-adjusted primary balance (8 + 3)		-2.6	3.0	5.1	5.9	7.8
10. Structural balance (8 - 4)		-8.6	-3.5	-2.5	-2.5	-1.3

Table 6. Divergence from previous update

	ESA Code	**Year 2010**	**Year 2011**	**Year 2012**	**Year 2013**	**Year 2014**
Real GDP growth (%)						
Previous update		-0.3	1.5	1.9	2.5	
Current update		-4.5	-3.5	0.8	2.1	2.1
Difference		-4.2	-5.0	-1.1	-0.4	
General government net lending (% of GDP)	EDP B.9					
Previous update		-8.7	-5.6	-2.8	-2.0	
Current update		-10.5	-7.3	-5.6	-4.4	-2.2
Difference		-1.8	-1.7	-2.8	-2.4	
General government gross debt (% of GDP)						
Previous update		120.4	120.6	117.4	113.9	
Current update		142.8	156.4	159.8	157.7	150.1
Difference		22.4	35.8	42.4	43.8	

Table 7. Long-term sustainability of public finances

% of GDP	**2000**	**2007**	**2020**	**2030**	**2040**	**2050**	**2060**
Total expenditure							
Of which: age-related expenditures							
Pension expenditure[8]	10.82	11.7	11.2	10.9	12.1	13.1	12.5
Social security pension	10.82	11.7	11.2	10.9	12.1	13.1	12.5
Old-age and early pensions		8.8	8.4	8.4	9.2	9.8	9.2
Other pensions (disability, survivors)		2.9	2.8	2.5	2.9	3.3	3.3
Occupational pensions (if in general government)							
Health care							
Long-term care *(this was earlier included in the health care)*							
Education expenditure							
Other age-related expenditures							
Interest expenditure							
Total revenue							
Of which: property income							
Of which: from pensions contributions (or social contributions if appropriate)							
Pension reserve fund assets							
Of which: consolidated public pension fund assets (assets other than government							
Assumptions							
Labour productivity growth		3.5	2.6	1.6	1.8	1.7	1.7
Real GDP growth		3.4	3.1	1.6	1.1	1.1	1.5
Participation rate males (aged 20-64)		78.8	80.8	79.5	80.0	80.3	79.9
Participation rates females (aged 20-64)		55.2	61.9	62.7	64.4	64.6	64.3
Total participation rates (aged 20-64)		67.1	71.5	71.3	72.4	72.6	72.2
Unemployment rate		8.5	12.0	8.3	8.3	8.3	8.3
Population aged 65+ over total population		0.19	0.21	0.24	0.28	0.32	0.32

[8] So far, sustainability assessment has been completed for four main pension funds accounting for a 75% (approximately) of the total pension expenditure. Given this, the boxed figures have been extrapolated (using a simple constant ratio scheme) from the figures reported on the graph in page 60, assuming that the remaining 25% of pension expenditure is similarly distributed across all relevant dimensions and consequently its effect remains neutral.

Table 8. Basic assumptions

This table should preferably be included in the programme itself; if not, these assumptions should be transmitted to the Council and the Commission together with the programme.

	Year 2010	Year 2011	Year 2012	Year 2013	Year 2014
Short-term interest rate[1] (annual average)	0.8	1.6	2.6	2.0	2.0
Long-term interest rate (annual average)					
USD/€ exchange rate (annual average) (euro area and ERM II countries)	1.33	1.41	1.41	1.41	1.41
Nominal effective exchange rate					
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)					
World excluding EU, GDP growth	5.6	4.6	4.7	4.7	4.7
EU GDP growth	1.8	1.6	1.7	2.0	2.0
Growth of relevant foreign markets					
World import volumes, excluding EU	13.0	8.3	7.9	8.0	8.0
Oil prices (Brent, USD/barrel)	80.2	112.8	112.0	100.00	100.00

[1]If necessary, purely technical assumptions.