Eurobank EFG Economic Research

Eurobank EFG

Greece: Macro Monitor

A Quarterly Review of the Greek Economy

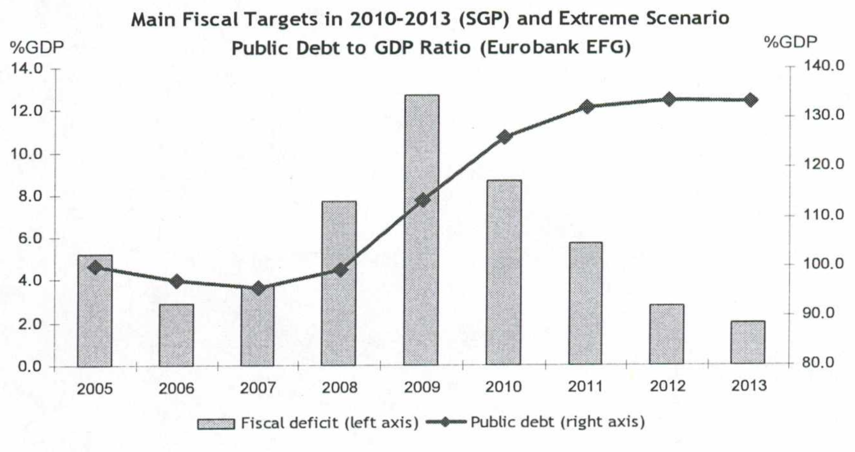
March 2010

A severe sovereign debt crisis triggers aggressive fiscal measures

- The **Greek economy** contracted by 2.0% in 2009, as the positive contribution from net exports softened the large decline in domestic aggregate demand.
- The recession is growing stronger in 2010: A further **2.8% decline in real GDP growth** constitutes a feasible scenario, with the balance of risks skewed to the downside.
- The recession is likely to end by the second half of 2011
- Annual average consumer price **inflation** is expected to reach **2.7%** in 2010.
- Given the aggressive fiscal consolidation efforts, the debt-to-GDP ratio is expected to stabilize by 2012-2013.

Please also read in this issue:

- A detailed **simulation exercise**, which reveals the economic factors behind the feasible and alternative scenario.
- **An empirical framework** for explaining the evolution of euro area sovereign bond spreads during the recent financial crisis.
- **An analysis on the prospect s** of public investment and EU structural funding.
- **A review of the recently** announced reforms to confront the fiscal, credibility and competitiveness problems of the Greek economy.



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Summary

The Greek economy contracted by a higher-than-expected rate of 2.0% in 2009, as weakened domestic demand more than offset the positive contribution from net exports. This year the recession is expected to get worse. A feasible scenario is for a further 2.8% decline in real GDP growth, with the balance of risks skewed to the downside. At the same time, the rise in indirect taxation is expected to push the rate of CPI inflation up to 2.7% in 2010 relative to 1.2% in 2009.

Recent readings in a range of high-frequency activity and sentiment indicators suggest limited scope for a quick turnaround in the domestic economy. The herculean fiscal effort needed to meet the demanding targets of the new Stability and Growth Programme (SGP) and the high debt-servicing requirements imply a considerable drag on the real economy. More importantly, incomes-policy austerity, a higher tax burden and sharp year-on-year gains in domestic food, energy and commodity prices will negatively affect disposable incomes in 2010. Last but not least, lending remains scarce, especially to small and medium size enterprises.

In our view, it is feasible for the recession to end by the second half of 2011 and a slow recovery to begin thereafter. That recovery should be able to gradually generate the primary surpluses needed to stabilize the public debt-to-GDP ratio. In the absence of additional fiscal measures, we expect the latter to peak at levels at most as high as 133% by the end of 2012, before starting to move south thereafter. Our analysis also shows that it is feasible to generate primary surpluses of the size Moody's Investor Services recently characterized as necessary to stabilize the country's sovereign credit ratings.

While our forecasts for the period 2010-2013 are more pessimistic than those included in the latest Stability and Growth Programme (published in early January), a number of significant developments occurred since then. Among others, the government said earlier this month that it no longer considers its earlier SGP forecasts feasible, as the package of additional fiscal measures announced on March 3 are expected to bite.

Naturally, there is a large degree of uncertainty ahead as the Greek economy enters a new phase of long overdue consolidation. A major part of the uncertainty regards the degree to which domestic policy makers will soon move beyond the fiscal consolidation effort and address the competitiveness problem, which presently strangles the domestic economy. A return to strong and sustainable growth rates requires a transition of the Greek economy towards a more exports-oriented/ less consumption-dependent model of development. To this end, structural reforms are needed to reclaim steep price competitiveness loses incurred in recent years and enhance quality competitiveness via a reallocation process. Those reforms, along with efforts to overhaul the public sector and cut red tape in the Greek economy, need to be implemented in an environment characterized by weak growth dynamics and a complete lack of room for implementing counter-cyclical policies. Yet, it may be doable. A more prudent fiscal stance may gradually help reduce fiscal dominance and the severe crowding out of the private sector and, therefore, reap efficiency gains. Also, external supervision by Brussels is expected to operate as a disciplinary mechanism, facilitate a higher degree of public acceptance of the austerity measures and enable the government to expedite the process of reforms. In fact, the government is actively paying attention to internal controls of its budgetary process, the investment component of its budget, or the need for a quick reform of the pension system. We increasingly get the sense that the government views this crisis as an opportunity for a new beginning for the country.

A significant part of the uncertainty currently surrounding the domestic growth outlook relates to the behavior of Greek consumers. We forecast consumption to drop by 6.2% in 2010, as a result of declining disposable incomes. Public employees are expected to lose close to 10% of their real disposable income, while private employees and self employed to see their nominal wages stagnate and real wages decline by the rate of inflation. Consumption of gasoline and durables like automobiles, electronics, furniture, etc are expected to be affected the most, resulting in a further large drop in imports in the neighborhood of -10.5%. It is exactly this drop in imports which along with higher exports can help mitigate the overall decline in this year's domestic output. Another part of the uncertainty resides in the behavior of investment, which has been on a declining trend in the last nine quarters. The ability of the government to change business sentiment and pull together

resources from EU funds and PPI projects, or provide loans to small business enterprises is critical at this juncture.

On the fiscal side, we expect data on the budget execution to surprise positively over the coming few months. The consolidation plan outlined in the Stability and Growth Programme (SGP) and the recently announced auxiliary package of fiscal measures, if implemented vigorously, are judged to be adequate enough to a) reduce this year's general government budget deficit by 4ppts-of-GDP and b) stabilize market sentiment and the country's sovereign credit outlook, at least in the short-term. In view of these developments, 10-year bond spreads over Bunds stopped their upward crawl of the past 4 months. In addition, Euro Area finance ministers acknowledged on March 15 that Greece is appropriately implementing its fiscal consolidation program. More importantly, they decided on establishing a formal mechanism to assist member states facing severe financing problems. According to reports, a final decision regarding the technical details of the plan will be left to European Union leaders who are next due to meet on March 25-26.

Although Greece's fiscal consolidation plan will likely prove strong enough to facilitate the attainment of the 2010 fiscal target, more measures may be needed down the road to meet the SGP's targets for the period 2011-2013 and to ensure a longer-term stabilization in the public debt-to-GDP ratio. In support of the latter view, the Eurogoup has already called on the Greek government to submit by May 15, 2010 a report providing detailed information on the implementation of the latest austerity measures and those that *will be taken* in order to reach its 2011 and 2012 budget targets.

Our own assessment is that financial assistance by either the EU or the IMF is not necessarily required. Their presence is needed more for supervisory rather than financial reasons. Bond spreads would decline should financial assistance take place, yet the marginal financial benefit is minor and comes with a geostrategic cost. In fact, too much discussion of such assistance risks generating panic among the public, which does not necessarily understand the deeper and longer implications of the recession and is vulnerable to extreme views often expressed by thoughtless media commentators. Also, past experience shows that countries that consistently implemented their fiscal consolidation programs, saw a decline in their cost of borrowing within months.

After remaining at levels below 1.5% YoY for the greater part of the 2009, domestic inflation embarked on a rising trend in the past few months, hitting a 16-month high of 2.8% YoY in February 2010. We have revised our earlier forecast for annual average consumer price inflation this year to 2.7% from 1.6% earlier (Greece Marco Monitor Dec 2009) to incorporate upside risks steaming from higher oil and food prices, the recently announced hikes in VAT and in the special consumption tax rates on fuels, cigarettes, alcoholic beverages and a range of luxury goods. Generally speaking, considerable uncertainty continues to surround the country's inflation outlook in the period ahead, especially in view of increased risks to the domestic growth environment and the part of recent indirect tax hikes that will be passed to the final consumer.

The rest of report develops an in depth analysis of the Greek economy and its prospects. Part 1 presents the recent economic developments and analyzes our outlook for the future. Part 2 presents a detailed description of the fiscal stance, the problems and the measures taken by the government to address them. Part 3 presents a simulation exercise on the future evolution of Greek GDP growth. Part 4 discusses the results of a model of the Greek bond spreads vis a vis Bunds. Part 5 analyzes the possibility of mobilizing the public sector in order to expedite the absorption of EU funds and boost investment. Finally, Part 6 presents a detailed list of the policy measures already implemented or soon to be implemented in order to address the fiscal and competitiveness deficits of the Greek economy.

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Table A: Key macro-data y/y growth	2008	2009	2010 Eurobank EFG forecasts
GDP (constant prices)	**2.0**	**-2.0**	**-2.8**
Private consumption	2.3	-1.9	-6.2
Government consumption	0.6	10.0	-5.0
Gross fixed capital formation	-7.4	-19.5	-4.5
Exports g&s	4.0	-16.0	2.5
Imports g&s	0.2	-24.7	-10.5
CPI (annual average)	**4.2**	**1.2**	**2.7**
Current account balance (% GDP)	-14.6	-11.2	-7.4
Budget deficit (% GDP)*	**-7.7**	**-12.7**	**-8.7**
Public debt (% GDP)*	99.2	113.4	120.4
Unemployment rate	**7.7**	**9.5**	**10.5**

Source: Realisations & Eurobank EFG forecasts - as of 16.3.2010

(*): SGP targets

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Part 1:

Domestic Economic Activity: Recent Developments and Outlook

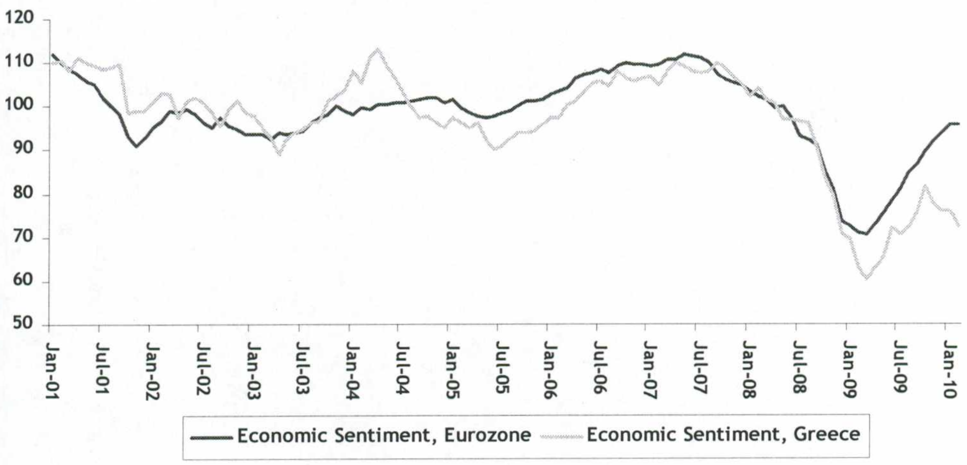
1.1 Real sector developments

Real GDP growth contacted last year by a higher-than-expected 2.0% YoY

According to preliminary national accounts data, the Greek economy contracted by 2.0% last year. This compares with an earlier official forecast for a 1.2% YoY decline. On a quarterly basis, GDP growth in Q4 was -0.8/-2.5% QoQ/YoY, while downward revisions were implemented in all of the prior three quarters. Specifically, Q1 2009 GDP was lowered to -1.0% YoY from -0.5% YoY estimated earlier; the growth reading for Q2 and Q3 were also revised to -1.9% YoY and -2.5% YoY, from -1.2% YoY and -1.7% YoY reported initially. At the breakdown, domestic demand contracted by 2.5% last year, following positive growth of 1.0% in 2008. This was mainly the result of increased public expenditure (+9.6% YoY), which helped to partially offset the drag from reduced consumer spending (-1.8% YoY). On a less negative note, net exports remained a positive contributor to GDP growth for the second year running in 2009 to the tune of 0.5ppts.

Developments over the last few months point to a diverging path between the Greek economy and the rest of the euro area. This can be verified, for instance, by the most recent readings in the respective economic sentiment indicators (*Graph 1i*). While economic sentiment in the euro area follows a strong recovery path since January 2009, sentiment on the Greek economy continues to deteriorate, with the election period being the exception. The main reason for this divergence relates to both the chronic structural problems of the Greek economy *(i.e., high levels of public deficit and debt, low competitiveness)* and the country's recent sovereign debt crisis.

Graph 1i: Economic Sentiment Indicators comparison: Euro area & Greece



Meanwhile, a recent slew of survey data and economic activity indicators suggest an ongoing deterioration in domestic economic activity *(see Table 1.1).* With respect to consumer-related indicators, the EC consumer confidence index for Greece fell to -51 in February 2010, coming a tad above a record low of -56 reached in February 2009. A temporary improvement in the Greek consumer sentiment indicator in September-November 2009 was probably due to the positive effect of the October 2009 election on consumer moral. In a similar vein, registration of new passenger vehicles fell by 17.8% YoY in 2009, following a 4.0% YoY drop in 2008. Note that last year's decline in car sales occurred despite a range of special measures adopted by the previous government in the spring 2009 to support the sector. In January 2010, registration of new cars rose 31.3% YoY, but this does not constitute an entirely convincing indicator of the outlook of car sales this year as the January reading was probably contaminated by seasonal and other effects.

With regard to expectations of domestic retailers, the EC retail trade confidence indicator for Greece reached -16.6 in February 2010. This is higher than a ten-year low of -38 hit in March 2009, but it nevertheless reflects persisting weakness in the domestic retail market. Again, the positive readings in the retail trade confidence indicator in October and November 2009 (3.1 and 2 respectively) were likely due to the positive effect of the elections. In the industrial sector, total output contracted by -9.5% in 2009 on an annual basis, after a 4.0% YoY decline in 2008. The contraction in domestic industrial output since Q4 2008 followed a sharp inventory build up in 2007 and reflects ongoing inventory destocking, weaker demand for domestically-produced export goods and the domestic demand slowdown.

These developments are reflected in the most recent reading in the PMI manufacturing index for Greece, which hit a ten-month low (44.2) in February 2010. In addition, the capacity utilization in industry stood at 68.1 in January 2010, a rate consistent with the ongoing contraction in the manufacturing sector. In the residential housing sector, the downward seems to have continued throughout 2009, though the latest available data are a bit old (-19.8 % YoY, 2009Q1). This is also supported by the 22.3% YoY fall in private buildings permits (volume) in December 2009. This figure is higher than the period average for 2009 (-25.9%) but lower than the November figure for private buildings permits (-19% YoY). Moreover, the construction confidence index reached -50.1 in February 2010, compared to a period average reading of -39.5% in 2009, implying a further deterioration in construction sector expectations. Finally, unemployment reached 10.2% in December 2009 which is higher than the respective 2008 figure (8.9% Dec.08) and is consistent with the slowdown of the economy during 2009.

1.2 Balance-of-payments developments

Bank of Greece's data for 2009 revealed an improvement in the current account balance, which saw its deficit decreasing by 23.3% YoY to € 26.7 bn or 11.2%-of-GDP, from 14.4%-of-GDP in 2008. The improvement was mainly due to a decline in the trade deficit, especially in the balance which excludes oil and ships. The narrower trade gap was on the back of a 24% YoY decrease in import payments (to € 31.3bn or 13.2%-of-GDP), which more than offset a 17.8% YoY concurrent decline in export receipts (to € 11.5 bn or 4.8%-of-GDP). Noteworthy also was the decrease in import payments for oil and ships 35% YoY to € 10.6 bn or 4.5% of GDP for oils and -34.3% YoY to € 4.2 bn or 17%-of-GDP for ships).

In the services balance, there was a -26.7% YoY decrease in 2009 to € 12.6 bn or 1.9%-of-GDP. This was mainly due to lower net receipts from travel and shipping services (-29.4%YoY to € 13.6 bn or 2.4%-of-GDP). Elsewhere, the overall deficit in the balance of incomes narrowed in 2009 by -7.9% YoY to € 9.8 bn or 4.1%-of-GDP due to the transfers of dividends and stock profits by non-residents.

1.3 Domestic credit

With respect to domestic credit developments, the most recent data reveal an ongoing deceleration in the growth of lending to domestic households by domestic Monetary Financial Institutions *(MFI)*. Total outstanding balances of MFI loans to domestic enterprises and households was growing in December at an annual rate of 1.0% YoY in January 2010, down sharply from 8.8% YoY and 15.0% YoY in May and January 2009, respectively. The corresponding growth rates in the outstanding balances of housing loans and consumer credit were 4.0% YoY and -1.1% YoY, respectively in the same month. The annual growth of domestic MFI lending to domestic households is expected to decelerate further in the coming months, with the total credit to the domestic private sector remaining broadly stagnant throughout this year.

Table 1.1 Greece: Key Macroeconomic & Market Indicators

	Last	January-to-latest available month/quarter 2009	2008
Consumer-vigor indicators			
Private consumption in constant prices (% YoY)	-1.6 (Q4 09)	-1.8	2.3
Retail sales excl. fuels & lubricants volume (% YoY)	-0.5 (Dec.09)	-11.3	-1.4
New private passenger car registrations (% YoY)	31.3 (Jan.10)	-17.8	-7.0
Consumer confidence (index level - period average)	-50.5 (Feb.10)	-45.7	-46
Retail trade expectations (index level - period average)	-16.6 (Feb.10)	-15.4	14.2
Industrial-activity indicators			
Industrial production (% YoY)	-7.6 (Dec.10)	-9.5	-4.0
manufacturing output (% YoY)	-6.2 (Nov 09)	-11.2	-4.7
Capacity utilization in industry (period average rate)	68.1 (Juan.10)	70.5	75.9
Industrial confidence (index level - period average)	-22.7 (Feb.10)	-28.4	-5.9
Manufacturing PMI (index level - period average)	44.2 (Feb.10)	45.3	50.4
Construction sector & other investment-activity indicators			
Cross fixed capital formation in constant prices (% YoY)	-25.9 (Q4 09)	-13.4	-7.4
Housing investment in constant prices (% YoY)	-19.8 (Q1 09)	-19.8	-29.1
Other construction in constant prices (% YoY)	35.5 (Q1 09)	35.5	8.7
Private building permits volume (% YoY)	-22.3 (Dec.09)	-25.9	-17.1
Construction confidence (index level - period average)	-50.1 (Feb.10)	-39.5	-9.7
National accounts statistics - *volume*			
Exports of goods & services (% YoY)	-0.9 (Jan.10)	-18.2	4.0
Imports of goods & services (% YoY)	-14.6 (Jan.10)	-29.9	0.2
Balance-of-Payments statistics *(euro-terms)*			
Tourism revenues (% YoY)	-13.0 (Dec.09)	-10.9	2.9
Transportation revenues (% YoY)	-7.9 (Dec.09)	-29.4	15.8
Customs-based statistics *(€ - terms)*			
Goods exports (% YoY)	0.9 (Jan.10)	-17.5	1.6
Goods exports to EU (% YoY)	0.7 (Jan.10)	-19.6	0.5
Goods exports to non-EU countries (% YoY)	1.1 (Jan.10)	-13.6	3.5
Goods imports (% YoY)	-14.6 (Jan.10)	-24.4	10.5
Goods imports from EU (% YoY)	-7.0 (Jan.10)	-17.9	4.2
Goods imports from non-EU countries (% YoY)	-23.5 (Jan.10)	-33.1	20.2
Domestic MFI credit to domestic enterprises & households *(oustanding balances)*			
Private sector (% YoY)	1.5 (Jan.10)	6.5	14.5
Enterprises (% YoY)	1.0 (Jan.10)	7.2	16.4
Households (% YoY)	1.9 (Jan.10)	5.7	12.8
Housing loans (% YoY)	3.7 (Jan.10)	6.5	11.5
Consumer credit (% YoY)	-1.6 (Jan.10)	4.2	16.0
Private-sector credit outstanding (% GDP)			
Total domestic enterprices & households	99.6 (Jan.10)	98.5	94.2
Domestic households	46.8 (Jan.10)	46.3	49.0
Private-sector credit outstanding (% GDP)			
Total domestic enterprices & households	99.6 (Jan.10)	98.5	94.2
Domestic households	46.8 (Jan.10)	46.3	49.0

Source: National Statistics & Eurobank EFG Research

1.4 Real sector outlook

For this year, we think that a further GDP contraction by ca 2.8% constitutes a feasible scenario, with risks to that forecast remaining skewed to the downside. This compares with growth rates of -0.3% and -0.8% envisioned in the revised Stability and Growth Programme *(baseline and worst-case scenarios, respectively).* Though considerable uncertainty presently surrounds the outlook, we can cite several important reasons supporting our pessimistic view on domestic growth. First of all, and in contrast to other economies in EU-27, the most recent reading in a range of high-frequency activity and sentiment indicators suggest limited scope for a quick turnaround in the domestic economy. Secondly, the herculean fiscal effort needed to meet the conditionalities of the SGP and high debt-servicing requirements (interest costs likely to exceed 5%-of-GDP in

2010) imply a considerable drag on the real economy. Third, incomes-policy austerity, higher direct and indirect taxation as well as sharp year-on-year gains in domestic food, energy and commodity prices will negatively affect disposable incomes in 2010 (and over the next three years, to say the least). Finally, MFI lending remains scarce and given the recent sharp widening in Greek sovereign credit spreads we expect broadly stagnant annual growth in domestic credit this year. In view of the above, we believe that risks to our GDP growth forecasts for this year remains firmly skewed to the downside. For additional analysis on the assumptions behind our baseline scenario for GDP growth in 2010 (as well as the examination of a number of alternative growth scenarios) please see section 1.2 of this document.

From a longer-term perspective, the domestic economic outlook continues to be clouded by considerable uncertainty, especially in view of a more difficult external environment and the fading out of exceptional factors that supported growth in recent years, including the sharp decline of domestic interest rates following the country's EMU entry. We reiterate our view that a return to strong and sustainable growth rates requires a transition of the Greek economy towards a more exports-oriented/ less consumption-dependent model of development. To this end, structural reforms are needed to reclaim steep competitiveness loses incurred in recent years. The difficulty with the latter endeavor is that such reforms, along with efforts to overhaul the public sector and cut red tape in the Greek economy need to be implemented in an environment characterized by weak growth dynamics and a complete lack of room for implementing counter-cyclical economic policies. On the flipside, and from a medium-term perspective, a more prudent fiscal stance could gradually help reduce fiscal dominance and the severe crowding of the private sector.

With regard to the balance of payments, we expect a further improvement in the current account balance this year to 7.7 % of GDP, mainly as a result of lower demand for imports and higher revenues from tourism and shipping.

1.5 Inflation developments and outlook

The average annual chance in CPI fell to 1.2% last year from 2.9% in 2008, driven by base effects, subdued demand-side pressures, low imported inflation and the sharp falls in oil and commodity prices in the this first months of 2009. After remaining at sub-1% levels in the 2nd and 3rd quarters of 2009, year-on-year inflation followed an upward trend, hitting a 16-month high of 2.8% YoY in February 2010 (latest available reading). The recent inflation uptrend can be mainly attributed to unfavorable base effects, higher oil and food prices and, more recently, higher domestic consumption taxes on fuels. With respect to our domestic inflation outlook in the period ahead, we have revised our earlier forecast for annual average consumer price inflation to 2.7% from 1.6% earlier *(Greece Marco Monitor Nov 2009)* to reflect upside inflation risks steaming from higher oil and food prices, the recently announced hikes in the special consumption tax rates on fuels, cigarettes, alcohol and a range of luxury goods. Generally speaking though, considerable uncertainty continues to surround the country's inflation outlook in the period ahead, especially in view of increased risks to the domestic growth environment and the part of recent indirect tax hikes passing to the final consumer.

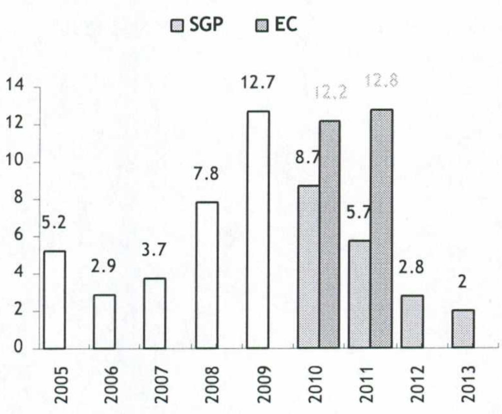
Part 2:

Recent Fiscal Developments and Outlook

2.1 The Hellenic Stability and Growth Programme

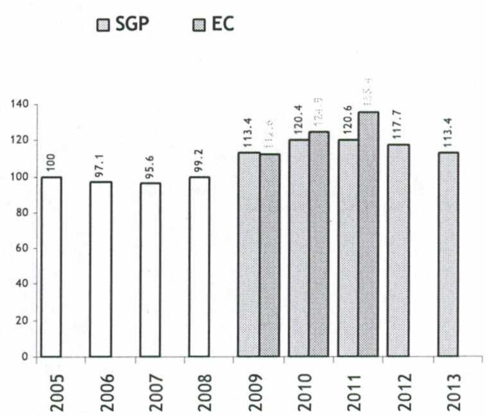
On January 15, Greece submitted to the European Commission its new Stability and Growth Programme *(SGP 2009-2013).* The plan targets a 10.8ppts-of-GDP cumulative reduction in the general government budget deficit over the period 2010-2013, with the exessive deficit being corrected (*i.e., decline to levels below the 3%-of-GDP threshold)* by the end of 2012. Graphs 2i & 2ii below depict the expected evolution of Greece's fiscal deficit and public debt ratios under the baseline scenario of the new stability programme (SGP). The graphs also show the path of the said variables projected in the more recent forecasts published by the European Commission *(Autumn 2009).* The latter are based on a *no-policy-change* scenario and as such, they do not incorporate the fiscal consolidation measures included in the revised stability programme.

Graph 2i: General gvnt deficit (% GDP)



Source: GSP; EC Autumn 2009

Graph 2ii: Gross public debt (% GDP)



Source: GSP; EC Autumn 2009

The new GSP is framed on a relatively benign macroeconomic environment, envisioning a return to positive *(annual)* growth rates from next year and a further gradual acceleration in real GDP to +2.5% in 2013 *(i.e., the last year of the forecasting period).* The plan also presents an alternative *(i.e., more pessimistic)* scenario, under which GDP growth follows a somewhat milder recovery path, which was estimated to necessitate additional permanent measures of fiscal consolidation worth 0.3ppts-of-GDP for each of the years between 2010 and 2013. According to the programme, these would include: a) further reductions in expenditures identified through the enhanced fiscal management reform efforts envisioned in the government's new fiscal consolidation plan and possibly b) additional measures on the revenue side, including through the increase in selected indirect taxes.

Table 2.1 below shows the forecasted path of GDP growth under the baseline and the alternative scenarios, along with the corresponding declines in the general government budget deficit. An important point of note regarding the following table is that the projected evolution of fiscal balances assumes that the elasticities *(with respect to nominal GDP)* of major budgetary aggregates remain constant under both scenarios.

Table 2.1: Evolution of GDP growth & fiscal balances envisioned by Greece's SGP (2009-2013)

	Alternative scenario				Baseline scenario			
	2010	2011	2012	2013	2010	2011	2012	2013
Real GDP growth (%)	-0.8	1.0	1.5	2.0	-0.3	1.5	1.9	2.5
Nominal GDP growth (%)	1.1	2.8	3.3	3.6	1.7	3.5	3.8	4.4
Unemployment (%)	10.2	11.2	11.5	11.5	9.9	10.5	10.5	10.3
General gvnt deficit (% GDP)	8.7	5.6	2.8	2.0	8.7	5.6	2.8	2.0

Source: GSP

The 2010 budget law (voted in the Greek parliament in late December) targets a reduction in the general government budget deficit to 9.1%-of-GDP, from a 12.7%-of-GDP in 2009[1]. That was estimated to be the result of a total fiscal adjustment worth €8.38bn or 3.8%-of-GDP. Furthermore, the new Stability and Growth Programme (SGP) envisions a 0.4ppts-of-GDP additional reduction in the 2010 fiscal deficit to 8.7%.

Table 2.5 provides the full list of measures included in the new SGP along with their estimated fiscal impact this year (official estimates). Specifically, the programme disaggregates the projected adjustment in the 2010 fiscal balance into a) an expected increase in general government budget revenue of €5,905mn relative to last year, as a result of both permanent and temporary measures and b) expenditure cuts worth €3,940mn, again as a result of both permanent and one-off measures.

Regarding the trust the projected fiscal adjustment in 2010, the stability and growth programme expects ca 42.5% of that to be due to one-off measures – *e.g. one-off levies on profitable firms and on high-value real estate; various expenditure items recorded in the 2009 budget and not going to be repeated this year* -- with the remaining part attributed to permanent-in-nature measures. *In our view, one of the major weaknesses of the new SGP is that it did not provide a detailed quantitative assessment of the new fiscal measures over the entire horizon of its implementation.*

2.2 SGP Drivers of fiscal adjustment

From the revenue side, the fiscal consolidation effort over the entire period of the programme is expected to be driven by a) a new progressive, uniform, tax scheme introduced in early March *(and being applied retroactively from 1.1.2010).* The new system encompasses all sources of income including dividends and abolishes a wide range of tax exemptions. The new scheme also taxes income generated from offshore companies b) measures to fight tax evasion, including, among others, the ex-post checking on the provenance of various possessions and a "tax-point system" for firms c) a range of indirect tax hikes on cigarettes, alcohol, mobile telephony and petrol d) increased transfers of EU structural funds to the country's public investment budget (PIB). On the latter, note that Greece has so far absorbed only €800mn or 3.07% of total EU funds available to the country under the CSF-IV (ESPA) programme running the period 2007-2013[2]. The 2010 budget forecasts some €6.95bn (2.9%-of-GDP) of new EU funds in 2010 and e) a range of one-off revenue generating measures envisioned in the 2010 budget. The latter though, can not be qualified as permanent.

From the expenditure side, the fiscal adjustment effort will be mainly driven by: a) more stringent incomes policies and measures to gradually downsize the public sector. 2010 incomes policy provisions for a freeze in pensions, flat growth in basic wages, significant cut back in civil-servant special allowances *(which, usually constitute a disproportionally large part of total salaries)* and a hiring freeze of new government employees, except in the areas of health, education and public-security. Other measures to contain wage and pension costs include the abolition of stages and cut backs in budget expenditure on overtime pay for employs in central government and public hospitals. From 2011 onwards, a new rule regarding hiring in the public sector will apply, allowing the hiring of only one new employee for every 5 departing b) reduced government operating and consumption expenditures and c) lower defense costs *i.e.,* by ca 0.2ppts-of-GDP per year, starting in 2010.

[1] This incorporated some 2.6bn or 1.1ppts-of-GDP of increased budgetary spending aiming to support lower-income groups and prop up aggregate demand.
[2] Total EU contribution for the period is €16bn, while the total package is worth €26.2bn, including national contributions.

In addition to the aforementioned measures, the new SGP envisions a wide range of structural reforms aiming to support the medium-term fiscal consolidation effort and restore the credibility of data reporting. Such measures include among others: a) legislation to render the Statistic Service independent b) creation of a Budget Office under the Parliament to monitor of the compilation and reporting of fiscal balances c) use of external auditors in public sector entities to assist an understaffed General Accounting Office d) introduction of 3-year budget plans for line Ministries e) introduction of a "zero-basis" methodology for the re-evaluation of all applications for funding f) adoption of "fiscal rules" for the effective medium-term execution of the budget and g) creation of a contingency reserve by setting an upper 90% limit on all budgetary appropriations

2.3 The February EU Council decision

In a regular meeting that took place on February 16, the EU Council adopted an earlier recommendation by the European Commission to notify Greece to take all necessary steps to **i)** ensure a budgetary consolidation of at least 4% in 2010 and **ii)** remedy its excessive deficit by 2012 at the latest. The Council called Greece to set budgetary consolidation measures according to a specific timetable, including deadlines for reporting on measures taken. The country was also requested to "bring its economic policies into line with the Union's broad economic policy guidelines and remove the risk of jeopardizing the proper functioning of economic and monetary union...". Even more importantly, the EU Council decided to place Greece under article 126(9) of the Treaty, which effectively requires a more rigorous and frequent (quarterly) monitoring of fiscal accounts[3]. Specifically, Greece was asked to present a report by March 16, setting out the timetable for implementing budgetary target measures for 2010. Another report will need to be submitted by 15 May, outlining the policy measures needed to comply with the Council's decisions. Quarterly reports will be required thereafter. With regard to implementation of specific budgetary measures, including those presented in the stability programme, the Council called for a) urgent measures to be taken by 15 May 2010; supporting measures to safeguard budgetary targets for 2010; other measures to be adopted by the end of 2010; additional measures to be taken by 2012. Besides the aforementioned, Greece was also called to design and implement "as soon as possible" a bold and comprehensive structural reform package, covering the areas of wage policy, pension reform, healthcare reform, public administration, the product market, the business environment, productivity and employment growth.

2.4 The March auxiliary budget

In view of the aforementioned developments and given that the announcement of the Greek SGP broadly failed to stabilize market sentiment and the near-term sovereign rating outlook of the country, the government announced on March 3 an auxiliary package of fiscal measures aiming to facilitate the 4ppts-of-GDP targeted reduction in the 2010 budget deficit. The respective bill has already been voted by the Parliament and, according to official estimates, it is expected to generate a fiscal adjustment of €4.8bn (or 2%-of-GDP) this year, in additional to that already included in the SGP. The new package is equally split between revenue-generating and cost-saving measures and, among others, it includes the following items:

On the revenue side,

a) A hike in the main VAT rate by 2ppts, to 21% from 19% previously. The two lower VAT rates were also increased to 5.0% from 4.5% and to 10% from 9%, respectively. These measures are (officially) expected to generate some €1.3bn (or 0.5%-of-GDP) in additional budget revenues.

b) Further increases in the excise taxes on tobacco products, gasoline, electricity and luxury goods, including passenger cars with domestic retail prices in excess of €35k, yachts, precious stones and metals as well as leather products. The move is expected to boost budget revenues by a further €1.1bn

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[3] Greece has been the subject of an excessive deficit procedure since April 2009, when the Council also issued a recommendation on corrective action to be taken. In December 2009, stated its decision that Greece had failed to comply with its recommendation.

(or 0.45%-of-GDP). Here, the estimated additional revenues per item are as follows, tobacco products: €300mn; gasoline: €450mn; electricity: €250mn; luxury goods €100mn.

c) In addition to the measures detailed above, the new package also provisions for: i. a 1% special levy on individuals that declared incomes in excess of €100k in FY 2009 ii. a rise in the effective tax rate on personal incomes in excess of €100k from 40% to 45%. *(The latter measure will be firstly applied to incomes earned in 2010 and thus, it will start affecting budget receipts from 2011 onwards)* iii. the tax rate on property worth over €5mn will be raised to 2.0% from 0.1%, currently. This measure is expected to generate ca €200mn in additional budget receipts iv. a rise of the effective tax rate applied to real estate owned by offshore companies to 15% from 3% and v. taxation of church property and income.

On the expenditure side, the following items are included in the 2010 auxiliary budget:

d) The public investment budget (PIB) for 2010 will be slashed by €500mn, while additional savings will be generated by a €200mn cut in the investment program of the Ministry of Education. Total savings from these sources will amount to an estimated 0.3%-of-GDP in 2010 compared to the previous official target included in the stability and growth programme (SGP).

e) Special civil servant allowances, which typically constitute a significant portion of the overall public wage bill, will be reduced by 12% instead of 10% announced previously. We estimate the *incremental* impact of this measure to be ca €130mn (0.05% of GDP) in additional budget savings annually.

f) Additional wage cuts in the public sector worth around €435-€450mn annually or 0.2%-of-GDP *(Eurobank EFG Research estimates).* These extra savings will be generated via a 30% reduction in salary bonuses for Christmas, Eastern and summer vacation. The measure is expected to affect 600,000 employees.

g) Other cost saving measures including: i. cuts in special budget transfers to local governments and various other entities in the broader public sector ii. reduced subsidies to OTE and PPC pension funds (by an estimated amount of €150mn per annum) iii. a horizontal freeze in state pensions (ca €450mn in annual savings are expected from this source). iv. Abolition of special public-sector committees earning income v. a 30% cut in overtime pay and vi. a 50% reduction in board compensations and the elimination of bonuses in the broader public sector (€350mn in additional savings from these sources).

The European Commission, the ECB and the Euro group all welcome the new measures, reiterating solidarity among EMU member states and urging the Greek government to ensure rigorous implementation of its fiscal consolidation program. From his part, Greek Prime Minister George Papandreou said recently that his government has done whatever it could to ensure implementation of the country's fiscal consolidation program and it is now the EU's turn to show its solidarity. Interestingly, Mr. Papandreou has left the door open for turning to the IMF for financial assistance in case that the Euro zone is unable (or unwilling) to do so if a need arises.

At their latest regular monthly meeting on March 15, Euro zone finance ministers acknowledged that Greece is appropriately implementing its Growth and Stability Program and welcomed the additional fiscal consolidation measures the Greek government announced on March 3. In addition, the Eurogroup urged the Greek authorities to "quickly and decisively" advance towards structural reforms and called on the government to submit a report by May 15, 2010 to provide detailed information on the implementation of the latest austerity measures and those that will be taken in order to reach its 2011 and 2012 budget targets. More importantly, the accompanying statement underlined that the Eurogroup stands ready "to take determined and coordinated action" to assist euro area member states to tackle financial problems, if needed. Jean-Claude Juncker, the chairman for the Eurozone ministerial group, clarified that any financial aid to Greece would not involve loan guarantees -- one of several options considered by euro area policy makers in recent weeks -- but would be in the form of 'bilateral loans' from other Eurozone governments, led by Germany and France. A final decision regarding the technical details of the plan will be left to European Union leaders who are due to meet on March 25-26.

2.5 Optimistic preliminary data on budget execution

According to preliminary official data on the budget execution, the central government deficit was reduced in the first two months of 2010 by 77.4% relative to the same period a year earlier. Specifically, net ordinary budget revenues rose 13.1% YoY compared to a full-year budget target of +10.8% YoY. The January-February revenue data partly incorporate recent increases in the special consumption tax on motor fuels. However, they do not account for the recently announced VAT hikes and higher tax rates on cigarettes, alcoholic beverages and a wide range of luxury goods *(to be effective from mid-March).* On the other hand, budget revenues over the first two months of the year were supported by one-off items, including a special levy on big firms *(ca €700mn or 0.3%-of-GDP in additional revenues was generated from that source in January).* Revenues will likely remain supported in the following months, reflecting the effects of the announced changes in the taxation system and the government's efforts to reduce tax and social-contributions avoidance. On the expenditure side, primary spending in January-February 2010 was reduced by 9.3% YoY, while interest costs were higher by 12.8% from the same period a year ago. Note that the respective full-year targets for primary expenditure and interest outlays *(as specified in the 2010 target)* are -1.9% YoY and +5.1% YoY. Finally, in the Public Investment Budget, expenditures were reduced by 58.2% YoY and revenues grew by 4.1% YoY over the first two months of the year. Forthcoming data on the budget execution will be closely monitored by market participants and EU policy makers in the period ahead for more clues over the attainability of the country's 2010 fiscal targets.

2.6 Assessment of the fiscal measures announced thus far

As we noted earlier, the consolidation program specified in the new SGP is framed on rather benign assumptions regarding the domestic macro outlook. GDP growth in 2010 is forecast at -0.3% and -0.8% under the program's baseline and worst-case scenarios, respectively, while a return to positive growth rates is expected in the period 2011-2013. However, the market consensus is currently for a more pronounced contraction in domestic output this year *(by ca 2%),* a view which is reportedly shared by both the Greek central bank (BoG) and the ECB. Note that even the Greek Finance Minister admitted recently that the pace of economic contraction this year might prove faster than expected earlier.

These developments have understandably raised doubts among market participants and policy-makers in the euro area about the efficacy of the fiscal consolidation plan outlined in the new stability and growth programme and its ability to generate the desired results. Especially, as the fiscal effort envisioned in the SGP was disproportionally driven by the revenue side, particularly in the FY 2010. In an important move aiming to alleviate worries over attainability of the announced fiscal targets, the government announced in early March an auxiliary budget for 2010 (see previous paragraph). According to official estimates (and assuming full implementation of the fiscal consolidation program), the measures announced thus far can generate a nominal fiscal adjustment in 2010 equivalent to €14.6bn. Again, this may prove a bit optimistic, but, nonetheless, the package constitutes an additional step in the right direction. Specifically, our assessment of the Greece's fiscal program is as follows:

a) 4ppts-of-GDP deficit-reduction target in 2010 seems attainable

In our view, the program of fiscal measures announced thus far is strong enough to generate the 4ppts-of-GDP projected reduction in the general government deficit this year. From the revues side, the more-difficult-to-quantify targets of budgetary receipts generated by efforts to reign in tax avoidance and social security contribution evasion seem broadly realistic considering that: **i)** they assume a return to pre-2009 ppts-of-GDP rates for VAT receipts and social security contribution payment levels **ii)** tax- and social security contribution-evasion in Greece is a widespread phenomenon and the implementation of the announced measures *e.g. cross-checking of the provenance of various positions* can assist a great deal towards meeting the tax revenue targets[4] **iii)** the envisioned hikes in a number of indirect taxes will likely

[4] In 2002-2009, annual general government revenue averaged only 39.2%-of-GDP compared to 44.8%-of-GDP in the euro area (EC Autumn 2009 forecasts).

bring additional revenues to state coffers *(to the extent that they do not lead to a concomitant decline in the demand for the goods and services affected)* **iv)** the aim to improve absorption of EU funds appears to be a credible one, given the exceptionally poor absorption rates in the last 3 years and **v)** from a market standpoint, a more rigorous *(i.e., quarterly)* monitoring of Greece's fiscal accounts by EU authorities under article 126(9) of the Treaty may function as anchor for the rigorous implementation of the fiscal targets thus, facilitating a gradual decompression of Greek sovereign spreads[5]. On the latter point, note that interest payments *(%-of-GDP terms)* on existing public debt in Greece are among the highest in EU-27. This hinders the government's deficit reduction effort, places a disproportional burden on existing debt stock and exaggerates the crowding out of the private sector. From the expenditure side, the application of more stringent incomes policies, measures to downsize the public sector and the announced reductions in government operating costs are also conducive to fiscal consolidation. In line with the more recently announced changes in the government's incomes policy, we estimate that the total government bill for wages and pensions will decline by ca 6% YoY in nominal terns this year, following a 11.4% YoY rise in 2009.

b) Government's fiscal program seems adequate to stabilize market sentiment and the country's credit rating outlook, at least in the short-term

Financial markets reacted positively to news of a package of additional fiscal measures announced by the Greek government in early March. Indicatively, the benchmark 10-year GGB/German bond yield spread narrowed to a three-week low near 280bps shortly after the announcement, from levels around 300bps earlier. In a similar vein, 5-yr credit default swaps (CDS) on Greek government debt dropped below 300bps for the first time since mid-January. Rating agencies' reaction to the measures was also reassuring, with both Moody's and Fitch affirming their current sovereign ratings on Greece (A2 /outlook negative and BBB+/outlook negative, respectively), urging the government to ensure rigorous implementation of the announced measures

c) More measures may be needed down the road to eliminate exessive deficit by 2012 and stabilize the public debt-to-GDP ratio

On a less reassuring note**,** the stability and growth pragramme fell short of providing a full *quantitative* assessment of the impact of announced measures in the period 2011-2013. This is especially relevant given that, as we explained earlier, the stability program's economic growth assumptions may well prove optimistic. In those lines, the EU Council has already asked Greece to submit by May 15, 2010 a report providing detailed information on the implementation of the latest austerity measures and those that *will be taken* to reach the 2011 and 2012 budget targets.

d) Public debt dynamics remain worrying

Naturally, the main drivers of the public debt ratio include: nominal GDP growth, the budget's primary balance, interest payments on debt and various stock-flow adjustments *(the latter including items that add to the debt stock without being recorded in the budget accounts).* The stability and growth program expects a peak in the debt ratio to levels between 120.4-120.6 in 2010 and 2011 and a gradual decline thereafter, to levels around 113.4%-of-GDP at the end of the forecasting horizon (2013). In our view these forecasts may well prove optimistic as i. GDP growth is likely to surprise to the downside and ii. interest costs are expected to remain at more elevated levels that assumed in the stability program, at least for the short-term. Assuming two scenarios for domestic GDP growth *(i.e., a feasible scenario envisioning a 2.8% contraction in GDP growth in 2010 and a rather extreme one, forecasting a 4.0% contraction this year and a return to positive growth no earlier than in 2012)* we derive certain projections regarding the evolution of the domestic debt-to-GDP ratio over the period 2010-2013 (Table 2.3). The results of this exercise argue in favor of additional fiscal measures down the road to stabilize the country's debt ratio.

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[5] See also special focus item "What explains the recent widening in EUR sovereign bond yield spreads?" in Part 3 of this report.

Table 2.3 : Projected evolution of debt-to-GDP ratio under alternative scenarios for GDP growth

	2009	2010 feasible	2010 extreme scenario	2011 feasible	2011 extreme scenario
General gvnt debt (level)	271,800				
GDP (current prices)	239,619				
Debt-GDP ratio (%)	1.134				
Primary balance (% GDP)	-7.7	-3.5	-4.8	-1.3	-1.6
Nominal GDP growth	0.4%	0.0%	-1.2%	2.1%	1.7%
Implied interest rate on debt	5.1%	5.30%	5.30%	5.30%	5.30%
Stock-flow adjustments (% GDP)	0.0190	0.0020	0.0020	0.0020	0.0020
Debt-to-GDP projections	**113.4%**	**123.1%**	**125.9%**	**128.5%**	**132.1%**

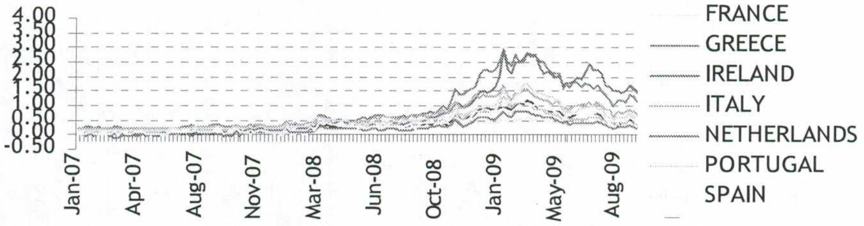
	2012 feasible	2012 extreme scenario	2013 feasible	2013 extreme scenario
General gvnt debt (level)				
GDP (current prices)				
Debt-GDP ratio (%)				
Primary balance (% GDP)	1.7	1.6	2.4	2.1
Nominal GDP growth	3.4%	3.1%	4.1%	3.8%
Implied interest rate on debt	5.20%	5.20%	5.20%	5.20%
Stock-flow adjustments (% GDP)	0.0020	0.0020	0.0020	0.0020
Debt-to-GDP projections	**129.1%**	**133.4%**	**128.4%**	**133.3%**

Source: Eurobank EFG Research

2.7 Debt issuance outlook and developments in the secondary Greek bond market

The strong recovery in investor sentiment since mid-March 2009 as a result of a coordinated effort by international organizations, monetary authorities and government around the world to support financial institutions and assist aggregate demand allowed a rapid de-escalation of euro area sovereign bond spreads. Indicatively, the 10-year Greek bond (GGB) yield spread vs. the 10-year German benchmark (Bund) hit in August 2009 multi-monthly lows around 108bps. Other euro area sovereign bond spreads also tightened significantly, with the 10-year bond yields differentials of Ireland, Spain, Portugal and Italy recording lows of ca 136bps, 45bps, 43bps and 6bps, respectively in August 2009. However, conditions in the EMU sovereign credit markets worsened anew since last November as a result of mounting market fears over the ability of Greece and other euro area countries including Portugal, Spain and Italy to put their fiscal accounts in order and meet rising external financing needs in an environment of weak economic growth and persisting dis-functionalities in world credit markets *(Graph 2iii)*.

Graph 2iii. 10YR sovereign bond spreads vs.Germany (in ppts)



Source: Bloomberg

Specifically, following a number of credit-rating downgrades on Greece by all three major rating agencies (*Table 2.4*) GGB spreads exploded, reaching in late January post-EMU entry record highs above 400bps[6].

Table 2.4: Sovereign credit ratings & ECB collateral rules			
Greece's sovereign credit rating(foreign currency LT debt)			
Moody's	Standard & Poor's	Fitch	
Aaa	AAA	AAA	
Aa1	AA+	AA+	
Aa2	AA	AA	
Aa3	AA-	AA-	
A2 (outlook negative)	A	A	Old Threshold
A3	A-	A-	To apply again from 1.1.2011
Baa1	BBB+ (outlook negative)	BBB+ (outlook negative)	
Baa2	BBB	BBB	Current Threshold
Baa3	BBB-	BBB-	To expire in 31.12.2010
Ba1	BB+	BB+	
Ba2	BB	BB	
Ba3	BB-	BB-	

Note: investment grades above dotted line, non-investment grades bellow doted line

Yet, following news of an auxiliary budget passed by the government in early March and a recent wave of comments by key policy makers in the euro area stressing solidarity among EMU member states (and a readiness to take measures if needed to help Greece execute its borrowing program) Greek bond yield spreads eased, reaching levels around 300 bps at the time of writing *(for the 10yr GGB/Bund spread benchmark).*

We believe that we have already seen the highs in Greek sovereign spreads and expect a further gradual de-escelation in the following months. Yet, markets will remain volatile and investor sentiment fragile especially ahead of the crucial April-May 2010 period where the country will need to roll-over a considerable part of existing debt *(some €12bn euros in April and another €8.5bn in May).*

Looking ahead, key market drivers in the following months will include **i.** forthcoming data on the execution of the 2010 budget **ii.** the speed and success of implementation of the announced fiscal and structural reforms (here the announced implementation timetable is quite demanding) **iii.** the evolution of domestic growth dynamics and i**v.** developments with respect the exessive deficit procedure for Greece. As regards the borrowing requirement for this year (officially projected at €54bnbn vs. ca €75bn in 2009), the state has already raised some 13bn via two syndicated issues of 5-year and 10-year bonds. According to reports, the government may proceed with 1 or 2 new syndicated issues in the near future, before resorting to regular re-opening of existing benchmarks.

[6] On January 28, the benchmark 10yr GGB/Bund yield spread hit a closing high of 396bps. In a similar vein, the Greek 5yr CDS spread toughed on February 8 levels near 430bps.

Table 2.5: Drivers of targeted fiscal adjustment in 2010				
	€ mn	ppts-of-GDP*	Cumulative fiscal adjustment	Comments / Assumptions / Additional measures to be taken to ensure no recurrence of particular expenditure item in 2010
A. One-off expenditures incured in 2009 (a1+a2+a3+a4+a5+a6+a7)	**3,228**	**1.3%**		
a1. Salaries & pensions	203	0.1%	203	
a2. Subsidy to social security funds	975	0.4%	678	**a)** Return to normal social contribution collection levels **b)** Legalisation of immigrants **c)** Changes in the medical procurement system (e-checks on prescriptions from 1/5/2010)
a3. Social protection	866	0.4%	1,544	General government level
a4. Grants to public sector entities	394	0.2%	1,938	Special solidarity allowance to be repeated this year and accounted for as a one-off expenditure item in the calculation of 2010 fiscal adjustment
a5. Consumption expenditures	541	0.2%	2,479	Arbitration decision for Olympic airlines
a6. Election expenditure	194	0.1%	2,673	An special expenditure of €50mn for the 2010 Presidential election has been accounted for in this year´s budget
a7. Other	55	0.0%	**2,728**	
B. One-off revenues in 2009 (b1+b2+b3)	**705**	**0.3%**		
b1. Taxes to incomes above € 60k	-300	-0.1%	2,428	Allready collected
b2. Tax settlements	-350	-0.1%	2,078	
b3. Revenue from bank liquidity scheme	-55	0.0%	**2,023**	
C. One-off revenues in 2010 (c1+c2+c3)	**1,330**	**0.5%**		
c1. Revenue from bank liquidity scheme	280	0.1%	2,303	
c2. Special levy on profitable firms	870	0.4%	3,173	To affect firms that recorded profits of more than € 5mn in 2008
c3. Special levy on high value real estate	180	0.1%	**3,353**	
D. Permanent expenditure cuts in 2010 (d1+d2+d3+d4+d5+d6)	**1,825**	**0.7%**		
d1. 10% cut in suplementary allowances for civil servants	650	0.3%	4,003	Includes all alllowances, excluding family allowances and child benefit, for central government, subsidized legal entities and local authorities
d2. Recruitment freeze in 2010	80	0.0%	4,083	Measure to exempts 1000 security officers, 3000 medical and 3000 teachers
d3. Reduction in short-term contracts	120	0.0%	4,203	
d4. Cut in operating costs	360	0.1%	4,563	Monitoring mechanism to be established in Jan. 2010
d5. Reduction in pension fund subsidy	540	0.2%	5,103	Assumes return to pre-crisis contribution levels
d6. Cuts in overtime pay	75	0.0%	**5,178**	
E. General government cuts (e1+e2)	**1,857**	**0.8%**		
e1. Defense costs	457	0.2%	5,635	
e2. Subsidy for hospital operating costs	1,400	0.6%	**7,035**	
F. Permanent expenditure increases in 2010 (f1+f2+f3)	**1,900**	**0.7%**		
f1. Education	-500	-0.2%	6,535	
f2. Public investment	-800	-0.3%	5,735	Public investment outlays will rise by 8.4% yoy in 2010 but the overall PIB balance is expected to shrink by 10.5% yoy as a result of increased transfers from the EU budget.
f3. Interest payments	-600	-0.2%	**5,135**	
G. One-off expenditure increases in 2010 (g1)	**500**	**0.2%**		
g1. One-off Solidarity allowance	-500	-0.2%	4,635	

Table 2.5 (Continued): Drivers of targeted fiscal adjustment in 2010				
	€ mn	ppts-of-GDP*	Cumulative fiscal adjustment	Comments / Assumptions / Additional measures to be taken to ensure no recurrence of particular expenditure item in 2010
H. Permanent revenue increases in 2010 (h1+h2+h3+h4+h5+h6+h7+h8)	**5,210**	**2.1%**		
h1. New progressive tax system encompassing all sources of income, abolishing a wide range of tax exceptions	1,100	0.4%	5,735	
h2. New taxation scheme for property	400	0.2%	6,135	
h3. Increase in excise tax on cigarettes	650	0.4%	6,785	
h4. Increase in excise tax on alcohol	60	0.0%	6,845	
h5. Tax increase in mobile telephones & petrol	400	0.2%	7,245	
h6. Measures to rein in tax evasion	1,200	0.5%	8,445	Figure derived by applying 2007-08 percentage of VAT/GDP ratio in the 2010 GDP
h7. Measures to reduce social contribution evasion	1,200	0.5%	9,645	Figure assumes return to pre-2009 social contribution payment level (approximately offset with d5 and part of a2)
h8. Additional EU transfers (PIB)	1,400	0.6%	9,845	
Projected reduction in the general government balance (A+B+C+D+E+F+H)	**9,845**	**4.0%**		**Of which 1.7ppts-of-GDP is one-off & 2.6ppts-of-GDP permanent**

Source: Stability and Growth Programme (2009-2013); Eurobank EFG Research

* Plus (+) sign denotes positive contribution to overall fiscal adjustment and vice versa

Part 3:

A Simulation Exercise for the future evolution of GDP and its components

By Tassos Anastasatos[7]

Key points

- This study attempts to forecast real GDP growth in 2010; a quantification of trends in components of GDP is conducted, with economic rationale invoked for each, and total growth is extracted from there.
- The main scenario takes into account only the expected impact of measures announced so far; conditions are analysed under which a real growth rate of -2.8% is attainable.
- A sensitivity analysis quantifies the impact of alternative, more adverse scenaria.
    - Firstly, the impact of a generalized application of a restrictive incomes policy to the private sector is evaluated. Should the effective abolition of the 14th salary in the public sector be extended to include private sectors employees, this could result in a contraction of real GDP by 3.3%. If, in addition to the announced tax policy changes income of the self-employed is negatively affected by falling demand, contraction could deepen to -3.6%.
    - Secondly, if total credit to enterprises and households is reduced by 6%, this could result in a contraction of real GDP by 4.9%.

3.1 Introduction

Latest developments on the fiscal front necessitate a reassessment of the GDP growth outlook for 2010. Most important among them, the additional measures announced on March 3rd for ensuring the attainment of the target of a reduction in the fiscal deficit by 4 ppts of GDP (see paragraph 2.4 in this document). This auxiliary package is expected to have two main consequences:

a) Strengthen the belief of the markets on the political commitment of the Government in meeting the ambitious target, as well as the feasibility of the target itself. This can result in a decisive -albeit gradual- reduction of sovereign risk and therefore the cost of borrowing for the Greek State. Given that every 100 bps reduction in the spread economizes ca €500mn on interest payments, this is a vital contribution to the viability of the stabilisation effort. In addition, the cost -and ease- of funding of Greek banks can benefit equiproportionately. This is an equally important development as it would eliminate the likelihood of a credit crunch in the real economy, with devastating consequences on the growth rate.

b) It magnifies the fiscal drag, i.e. the limitation of the expansionary contribution of the public sector on domestic demand[8] and hence on GDP growth.

According to the latest NSSG announcement, real GDP fell by 2% in 2009, instead of the -1.2% change projected in the Stability and Growth Program (SGP). The revision was mainly due to changes in turnover indices for the accommodation and restaurant sector. Therefore, it should have affected mainly the external sector and, on a second round, consumption via its multiplicatory effect. This revision should have two implications for 2010 growth:

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[8] Given that the government budget is projected to record a primary deficit even after implementing the additional measures, it cannot be said to have a contractionary impact.

1. A positive base effect.
2. A negative economic confidence effect; economic sentiment was suggesting some easing in the recession pattern in the second half of 2010, but developments of the last months appear to have renewed pessimism, with potential repercussions on private consumption and investment.

Taking the GDP revision in mind, the SGP forecast for the nominal GDP in 2010 should be modified to around €242.2bn, assuming a) real contractions of 2.0% and 0.3%, respectively in 2009 and in the current year and b) GDP deflators of 1.6% and 2.0% in 2009 and 2010 respectively. Yet, the most recent developments in the Greek economy render this projection unrealistic.

Table 3.1 : GDP breakdown for 2010

2010, % Real rates of change	Eurobank Research	SGP, Plan A	SGP, Plan B
Private consumption	-6.2	-1.0	
Gvnt consumption	-5.0	-4.4	No
Final consumption	-5.8	-1.5	Breakdown
Gross Fixed Capital Formation	-4.5	-1.6	provided
Change in inventories	-6.0	-0.9	
Domestic demand	-6.0	-1.8	
Exports of g&s	2.5	2.5	
Imports of g&s	-10.5	-3.0	
Real GDP growth	-2.8	-0.3	-0.8
GDP Deflator (%Δ)	2.7	2.0	1.9
Balance of Payments (% of GDP)	7.7	8.1	8.1

Source:SGP, Eurobank EFG Research

Fiscal adjustment in 2010 implies a contractionary impact on the –now reduced- GDP in comparison to 2009. If measures of fiscal consolidation were fully implemented, they would amount in a fiscal restriction of: (a) €9.845bn from measures predicted by the SGP (plan A) plus (b) €4.8bn from auxiliary measures announced on March 3rd 2010. In total, if fully realized, expenditure cutbacks and revenue increases of €14.645 bn would be equivalent to a 12.2% reduction of total government expenditure or ca 6ppts of nominal GDP according to SGP assumptions.

As a first assessment of the impact on the real economy, the long-run elasticity of GDP with respect to government expenditures is roughly equal to 0.7. In 2009, the share of government expenditure over GDP was equal to 52% (vs. a decade average ca 45%). Hence, a 6ppts-of-GDP fiscal restriction should result in a GDP growth decline of ca 4.4ppts (=12.2* (0.52*0.7) ppts). However, this is a ceteris paribus assessment. There are other factors exercising an impact on components of GDP and thus, overall, growth. Equally importantly, it is not plausible to assume that the targets of the initial SGP will be reached; instead, targets will be reached –and possibly overshot- with the aid of the auxiliary package.

3.2 Derivation of real GDP growth forecast for 2010

We proceed to conduct a simulation exercise, accompanied by sensitivity analysis encompassing main risks. Theoretically consistent economic rationale is provided for anticipating and quantifying impacts on each sector of the economy. The -2.8% GDP growth forecast (see Table 3.1) for 2010, which we consider to be a feasible one, takes into account only developments that have already materialized by the time of publishing and their impact on disposable income, the cost of financing public debt (spreads), and the renewed deterioration of economic confidence.

Evolution of GDP Components

(a) Private consumption (72.7% of GDP): the -1.0% change predicted by the SGP for 2010 looks overly optimistic. Private consumption predominantly depends on disposable income. Revised GDP data for 2009 show that real private consumption contracted in 2009 by ca 1.8%, instead of 1.5% projected in the SGP. Nominal disposable income declined by 0.2% in 2009.[9] Given that the private consumption deflator recorded a 1.2% increase in 2009,[10] consumption contracted by 0.4% more than the real disposable income. It is tempting to deduce that consumption decelerated more rapidly in the final months of 2009, in anticipation of the negative outlook for 2010 nominal disposable income. This explanation is corroborated by the fact that the elasticity of consumption with respect to disposable income jumped to 5.2 in 2009, compared to a 2001-2008 average of 1.2. We have to bear in mind that, not only this elasticity is very volatile, but it was also calculated during years of rapid growth based on booming consumption, a growth model which is now considered to be no longer viable. When in recession, it is more reasonable to expect that consumption will decelerate more gradually, as the Greek consumer will attempt to smooth her consumption levels intertemporally.

AMECO projected a marginal increase of net real disposable income in 2010 (0.3%). However, this projection did not take into account **i)** the 2009 GDP revision **ii)** the fiscal consolidation package outlined in the SGP and **iii)** the auxiliary budget announced by the government in early March. These measures imply a reduction of the nominal disposable income for 2010 as follows:

i. From the tax policy: tax measures of the SGP and measures announced in early March, if fully implemented, would result in a total reduction of nominal disposable income of ca €9.0bn or 4.5% (net disposable income in 2009: €201bn, AMECO). However, the additional measures of the 3rd of March were necessitated exactly by the realization on behalf of the Government that some risks mentioned in the SGP will materialize and, therefore, the targets for expenses and revenues described in it will be unattainable. For example, the SGP assumed that €2.4 bn in total would come from fighting tax evasion and social security contributions evasion. The main risk though emanates from the understanding that recession will be deeper than the 0.3% predicted in the SGP (Plan A), an eventuality that will suppress budget revenues. The auxiliary package announced in early March comprised of measures worth €4.8 bn in total, equally split between expenditure cuts and revenue increases. Hence, it is reasonable to assume that the government expects revenue shortfall to be €2.4 bn. As a consequence, tax measures will reduce nominal disposable income by ca €6.6bn or 3.3%.

ii. From the incomes policy: the auxiliary measures announced on March 3 included a 12% horizontal reduction in wage supplements and a 30% reduction in the 13th and 14th salaries for all civil servants.[11] The latter comprise exclusively the basic wage, which constitutes ca 3/5 of employees' total earnings, but not wage supplements. Hence, impact on civil servants' disposable income will be:

$$2/5 * 0.12 + 3/5 * 2/14 * 0.3 = 7.4\%$$

Given that employees on central government and the broader public sector constitute ca 25% of the labor force, the reduction of the nominal disposable income due to incomes policy austerity will be ca 1.8%.

In total, nominal disposable income will fall by 5.1% (= 3.3% + 1.8%). Next, we have to make an assumption about private consumption deflator. The SGP assumes a deflator of 1.4%. However, the indirect taxes (VAT and excise taxes) imposed in early March will exert additional inflationary pressures. Deflationary pressures due to shrinking aggregate demand cannot be assumed to fully offset these pressures. Eurobank Research prediction is

[9] Projections by AMECO, European Commission's database.
[10] NSSG, National definition, the HICP increased by 1.3%.
[11] For employees in the broader public sector a horizontal 7% reduction was announced instead, which however is quantitatively similar to the reductions in central government.

for GDP and consumption deflators both equal to 2.7%.12 With this consumption deflator, the 5.1% reduction in nominal disposable income translates into a 7.8% reduction of real disposable income.

Finally, we have to deduce to which extent the fall of real disposable income will affect private consumption. To summarize our rationale:

a) The reduction in private consumption that already took place in 2009 constitutes a preemptive adjustment in households' balance sheets and limits the risk of consumption's overreaction in 2010.

b) We do not use the decade-average elasticity of consumption w.r.t. disposable income of 1.2 but, instead, assume that in the new recessionary environment behavior consistent to intertemporal smoothing of consumption will be observed. Hence, consumption deceleration will be more gradual in comparison to developments in disposable income. Besides, it is empirically documented that, for lower incomes, some parts of consumption are income-inelastic.

c) We accept the SGP argument that the reduction of private consumption will not be equiproportionate to the reduction of disposable income due to the fact that restrictive measures are targeted to higher income citizens that have a smaller propensity to consume.

Taking account of all these factors, we assume that the change in consumption will be 80% of the change in disposable income. Hence, we can infer that real private consumption will contract in 2010 by 6.2% (=7.8%* 0.8).

The above calculations are based on the assumption that real wages in the private sector and earnings of self employed will be flat in real terms. A risk factor lies here; although the government and employers unions have rejected the implementation of wage reductions in the private sector, pressures can be exerted by climbing unemployment and weak domestic demand. Disposable income will also depend on a multitude of additional factors, including:

1. Credit expansion; baseline assumption of our forecast: zero change of total loans.
2. The extent to which broadening of the tax base will be achieved; if tax evasion is limited, burden will fall on the black economy, so that only secondary effects on consumption will be captured in official statistics.
3. The course of tourism.
4. Consumer confidence.

These risks are addressed in the sensitivity analysis.
Main forecast for private consumption: -6.2% change.

(b) Government consumption: (17.9% of GDP) The SGP predicts a -4.4% change. However, additional measures announced on 3/3/2010 imply a total reduction of ca €5.7 bn or 6.0%. As with tax measures, full achievement of SGP targets cannot be assumed or else additional measures would not be necessary. The -4.4% target is a high government priority and will be achieved by all means. Taking in mind that the philosophy of additional measures was to overshoot targets so as to inspire confidence to the markets, it is prudent to assume a -5% change.

Final consumption: -6.0%

(c) Gross Fixed Capital Formation: (16.1% of GDP) a further steep decline of 13.9% in 2009 (-7.4% in 2008) implies possible base effects and has probably motivated the -1.6% forecast for 2010 envisioned in the SGP (baseline scenario). However, drivers of investment remain weak. Building permits continue to decrease and the uncertainty of demand and the economic environment urge enterprises to postpone projects. In addition, latest revision of NSSG data showed that, in contrast to prior projections, no inventory deccumulation took place in Greece in 2009, leaving room for this to happen in 2010. On the other hand, real interest rates, which rose due to sovereign risk, are now expected to fall gradually, thereby mediating pressures on investment. The

[12] We remain vigilant as to developments in inflation; the possibility of stagflation cannot be excluded. However, longer-term, the structural measures the government has committed to undertake (fighting rigidities in product markets, opening closed professions, reducing barriers to entry and the operation of enterprises etc) should have an impact in suppressing the core of inflation.

government also maintained an increased public investment budget and now accelerates initiatives for absorbing EU Structural Funds resources and promoting Public-Private Projects. A Guarantee Scheme worth €2 bn for SME loans is also put in place. Finally, measures to improve the entrepreneurial environment are legislated (simplification of procedures for starting a business, more transparent tax law etc).

Overall, the urge to revive the market inspires hope that long overdue measures will be undertaken to yield fruits within 2010 and resistances will be curbed. Taking into account the above developments we pencil in a -4.5% baseline real growth forecast for gross fixed capital formation in 2010. This along with a -6% projected change in inventories (1% of GDP) implies a real contraction in gross capital formation of -4.7% in 2010 compared to a 13.4% decline in 2009.

Domestic demand (106,8% of GDP): -5.8% change.

(d) Exports of g&s (20.6% of GDP): after a 16% reduction in 2009, the SGP forecast of a 2.5% increase is not unrealistic. Changes in ULC from recent measures can improve price competitiveness and thus benefit exports but the extent to which this will happen within 2010 is doubtful. International demand, especially in tourism and maritime transportations, is expected to recover. However, pressures in hotel prices and related services can mediate increase of tourism receipts. As a result, we maintain our baseline assumption for the growth of good and services exports in 2010 to +2.5%.

(e) Imports of g&s (27.3% of GDP): a -14.1% decrease in 2009 constitutes a low basis but recessionary pressures are deepening. We also need to bear in mind that imports in Greece are more volatile than general consumption since, to a large extent, they constitute goods of high income elasticity. Hence, the adjustment that already took place in 2009 cannot be assumed to mediate further adjustment in 2010, as for total private consumption.[13] The 2003-2008 average elasticity of imports of goods & services w.r.t. net disposable income was 1.35. Hence, the 7.8% reduction of real disposable income calculated above implies a 10.5% real reduction of imports. A more aggressive fall of imports would not be compatible with the modest changes projected above for investment and exports, as both those sectors have a large import content.

3.3 Sensitivity analysis

We next proceed to evaluate some more extreme eventualities. These should not be considered as forecasts but rather as a basis comparator for more plausible scenaria. A major downside risk to our -2.8% real GDP growth scenario for 2010 emanates from the cost of financing. If high spreads are maintained, two channels of impact on the real economy can be identified:

1. Any additional measures implemented in order to achieve the fiscal targets will negatively affect disposable income and consumption.
2. The cost of funding for banks, and therefore the private sector of the economy is elevated, affecting investment and the interest-rate-sensitive parts of consumption.

The first factor has materialized, with the recessionary impact of the auxiliary package announced in early March being already accounted for in our baseline projection. Hence, it is now less likely that additional measures will be needed for 2010. The impact of the second factor will be aggravated if the flight of domestic deposits observed in previous weeks is not reversed or, even worse, if it continues in the period ahead. In that case, the banks' ability to substitute the –expensive- external funding by domestic sources will be limited. The average elasticity of total deposits w.r.t. nominal GDP for the years 2002-2009 is 2.8. For a projected decrease of 0.1% in nominal GDP for 2010 (-2.8% real growth, 2.7% GDP deflator), this would imply a 0.3% decrease in deposits. This is broadly consistent with our forecast of a zero change in total loans for 2010. However, this elasticity was calculated in years of strong growth and it is not clear whether it holds in a recessionary environment as well.

[13] Effectively, we assume a reduction of imports' share in the consumer's basket. Recent measures such as a special levy tax on luxurious goods and –imported- luxurious cars, lends support to this rationale.

Furthermore, deposits are more volatile than GDP. Hence, in the present situation, in which idiosyncratic factors are at play (sovereign risk, fears of tax burden), it is not clear whether this tendency will be attained.

Therefore, in order to address the aforementioned risks, two scenaria are evaluated:

1. The effective abolishment of the 14^{th} salary is extended to the private sector in an effort to improve competitiveness. The application of this measure would enlarge the fall of disposable income in addition to what was calculated in the baseline scenario as follows:

- Private sector employees (ca 30% of labor force): assuming the cutback would concern a full 1/14 of earnings, private sector employees' disposable income would fall by ca 7.1%. If, in addition, a nominal wage freeze is applied, as seems likely, the real fall would be 9.8% (consumption deflator of 2.7%). Hence, total real disposable income would fall by an extra 2.9 ppts (-10.7% change in total). With a change in consumption equal to 80% of the change in disposable income, this would result in a 2.3% extra reduction in real private consumption, 8.5% decrease in total. With an elasticity of imports w.r.t. net disposable income equal to 1.35, imports would fall by an extra 3.9%, i.e. 14,4% in total. Assuming the extra reduction of disposable income translates into an equiproportional increase in exports (due to ULC fall, i.e. competitiveness improvement) and fall of investment (due to weaker demand environment), all impacts combined will translate, ceteris paribus, to a contraction of real GDP by -3.3%.

So far, we have assumed that the self-employed (ca 45% of labor force) will experience on their real disposable income only the impact that comes from the tax policy. If their income falls, e.g. by an extra 5%, due to weak domestic demand and the uncertain economic environment, total real disposable income would fall by an extra 2.2 ppts (-12.9% change in total). Applying the same rationale as above, private consumption would fall by 10.3%, investment by 9.8%, imports by 17.4%, and exports will increase by 7.6%. All impacts combined, will translate, ceteris paribus, into a contraction of real GDP by -3.6%.

2. Total credit is reduced by 6%. This could result from shrinkage of deposits and the credit rationing incurred by the increased cost of banks' wholesale funding. In Table 1.2 below, it can be seen that the average elasticity of total loans w.r.t. to GDP for the years 2001-2008 is 2.8. However, in 2009 the elasticity jumped to 12.2 due to the fact GDP decelerated more steeply than loans. It is likely that loans will adjust with a lag to the deceleration of GDP growth in 2010, so the elasticity of 2009 is excluded from computations. Hence, if using the 2.8 elasticity, a 6% reduction in credit would translate, ceteris paribus, to a loss of extra 2.1 ppts of growth or, with our baseline forecast of -2.8% growth, into a contraction of real GDP by -4.9%.[14]

Balance of Payments

Assuming:

- The baseline changes, +2.5% for exports and -10.5% for imports,
- Unchanged current and capital transfers,
- +5% increase of the Incomes Balance deficit due to increased payments for public debt interest,

Then, the BoP will present a deficit of ca €17.560 bn or 7.4% of GDP in 2010.[15]

[14] This is an "umbrella" impact, carrying with it respective changes in various components of the GDP.
[15] With GDP for 2009 equal to €237.5 bn, according to NSSG, GDP growth -2.8% and GDP deflator equal to 2.7% for 2010, according to our main forecast.

Table 3.2: Elasticities of Total loans w.r.t. GDP

	GDP	Total loans to households & enterprises	Elasticity	Average ε, 2001-2009	Average ε, 2001-2008
2001	146,427.90	67,396.60			
2002	156,614.60	80,735.73	2.84	3.98	2.81
2003	172,431.10	95,976.43	1.87		
2004	185,817.60	114,471.40	2.48		
2005	195,371.20	136,171.60	3.69		
2006	210,464.50	164,576.70	2.70		
2007	226,442.00	196,790.70	2.58		
2008	239,146.30	235,272.00	3.49		
2009	240,425.60	250,616.50	12.19		

Source:SGP, Eurobank EFG Research

Part 4:

A Dynamic Panel framework for explaining euro area sovereign bond spreads during the recent financial crisis

(Exert from our latest Economy & Markets monthly report "What explains the recent widening in EUR sovereign bond yield spreads?", March 20, 2010)

By Platon Monokroussos[16]

Outline and Summary of Empirical Results

Generally speaking, the disaggregation of sovereign credit spreads into constituent parts is a rather challenging exercise. Yet, recent empirical studies have documented at least there distinct determinants; namely, *credit risk, liquidity risk and international risk aversion.* In this chapter we summarize the main findings of an empirical study we conducted recently for explaining the evolution and determinants of sovereign credit spreads in the euro area *(please see our latest Economy & Markets monthly report - March 20, 2010).* Our study utilizes a *Dynamic Panel Model* for 10-year euro area government bond yield spreads vs. Germany. The countries examined include Greece, Portugal, Spain, Belgium, Netherlands, Austria, Italy, Ireland, France, Finland and Germany. We exclude from our study the rest of EU-16 countries as they do not currently have liquid 10-year government bond markets. Our data consist of *(average)* monthly observations spanning the period from July 2007 *(eruption of sub-prime crisis in the US)* to January 2010. The main results of our model remain broadly robust to alternative model specification, different data frequencies (eg., weekly) and alternative time spans (eg., September 2008-January 2010). Moreover our coefficient estimates are broadly highly significant and the fit of the model impressively high (over 0.70) under alternative model specifications.

Our empirical results provide new evidence supporting the following two propositions:

a) In the period following the outbreak of the subprime crisis in US (July 2007), country-specific credit risk, global risk aversion and, to a lesser extent, relative market liquidity conditions become important drivers of sovereign bond spreads in the euro area[17].

b) Sizable bank rescue packages announced by a number of governments in the euro area in the months following the Lehman debacle resulted in a certain transfer of risk from the private to the public sector. This had a significant incremental widening impact on EUR sovereign bond yield spreads.

Specifically for Greece, our results indicate that some 57% of the average monthly change in the Greek/Bund 10-year bond yield spread over the period November 2009-Janury 2010 can be attributed to the perceived rise in the country's credit risk relative to Germany, with the rest of it being due to global risk aversion and relative liquidity conditions *vis-ů-vis* the German government bond market[18].

Ignoring potential non-linearities in relation between (relative) fiscal positions and corresponding sovereign bond yield spreads, we find that the cumulative widening in the 10-year Greek bond spread relative to Germany over the period November 2009-January 2010 (around 150bps) can be decomposed as follows:

iii. 63bps of that can be attributed to the expected deterioration in Greece's general government budget deficit (in ppts-of-GDP terms) relative to Germany this year and the next

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[17] Note that a number of recent empirical studies have documented that in the period following the formation of the Eurozone and before the subprime crisis, sovereign bond yield spreads in the euro area have generally been moving in a broadly random fashions with corresponding yields exhibiting strong positive correlation.

[18] Here, these percentages should be viewed as maximum contributions.

iv. 24bps of the total spread widening can be attributed to the expected rise in Greece's public debt-to-GDP ratio relative to the Germany this year and the next

v. 63bps can the total spread widening in the period under examination can be attributed to global risk aversion

The above calculations also imply that for every 1ppts-of-GDP expected rise in the Greek fiscal deficit and debt ratio (relative to Germany) in the period November 2009-January 2010, the 10 year GGB/Bund spread increased (on average) by ca 8bps and 1.7bps, respectively. From a policy perspective, the above results allow no room for complacency or slippage with respect to the implementation of the fiscal measures announced thus far, as they suggest that the de-escalation of Greek sovereign bond spreads will likely prove a slow and painful process.

We conclude our empirical study by presenting a *fundamentals-based* valuation framework for spreads. Greece and Portugal are presently estimated to be the cheapest credits in the EUR sovereign bond market space. Specifically, we estimate their benchmark 10-year government bond yield spreads to Germany to have "fair" values of ca 230bps and 65bps, respectively. However, these results should be interpreted with caution, as they do not necessarily represent our genuine forecasts of where the sovereign spreads are heading to in the near future. They are merely theoretical "fair values" for the respective spreads and thus, they could be seen as medium-term equilibrium convergence levels for spreads, once conditions in the EUR-periphery markets stabilize

Part 5:

Public Investment and EU Structural Funding: Getting Back on Track

By Theodosios Sabaniotis[19]

Key points

- The 2010 Public Investments Budget (PIB) is the largest since 2000 and funds allocated to public investments are expected to keep increasing in the 2010-2013 period.
- The smooth execution of the PIB relies heavily on the absorption pace of EU structural funds from the National Strategic Reform Programme (NSRF) 2007-2013. A number of measures and changes in the administration system were announced aiming to improve its effectiveness and facilitating the proper and timely execution of the NSRF.
- An ambitious goal was set to reach a 15% absorption rate of EU funds by the end of 2010.
- The CSF III closed with no loss of funds, thanks to an extension of its implementation period granted by the EU.

5.1 Public Investments Budget 2010

The Public Investments Budget (PIB) for 2010 is the largest one in absolute terms since 2000, exceeding even the pre-2004 Olympic Games PIBs (Table 1). It is also the largest as a percentage of GDP since 2004. PIB expenditure is projected to reach €9.8bn in 2010 (from €9.5bn in 2009 – an increase of 3.2% YoY). Initially, the PIB presented in the 2010 budget (and the SGP) was €10.3bn, but it was eventually slashed by €500mn as part of an auxiliary package of fiscal measures introduced by the government on March 3rd. Though not entirely clarified, we estimate that the reduction concerns the purely nationally-funded part of the PIB. We estimate the latter to reach €2.85bn this year, compared to €2.8bn in 2009. As such, we expect the EU co-financed part of the PIB to remain in a rising trajectory since 2002, reaching €6.95bn in 2010 vs. €6.7bn last year.

Table 5.1: Public Investments Budget

	€ mill.	% GDP	% growth rate
2000	7,421	5.4	
2001	7,842	5.4	5.7
2002	7,014	4.5	-10.6
2003	8,435	4.9	20.2
2004	9,522	5.1	12.8
2005	7,524	3.9	-21.0
2006	8,184	3.9	8.8
2007	8,809	3.9	7.6
2008	9,624	4.0	9.2
2009	9,500	4.0	-1.3
2010	9,800	4.1	3.2
2011	11,120	4.4	13.5
2012	11,805	4.5	6.2
2013	13,693	5.1	16.0

Note: 2000 - 2008 are historical data, 2009 - 2010 data are from the 2010 Budget and data for 2011-2013 are based on GDP and PIB projections in the Greek Stability and Growth Pact. The latest revisions of the Greek GDP data and the auxiliary package of fiscal measures were taken into account.

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According to the new Stability and Growth Programme (SGP), the PIB will keep increasing throughout the 2010-2013 period, exhibiting much higher growth rates than nominal GDP. This development reflects the need to stimulate the economy through public investment, taking advantage of EU funds. Public investment historically accounts for around 15% of total gross capital formation and in the present domestic recessionary environment it can act as a powerful catalyst for providing liquidity to businesses involved in development projects and spurring private investments.

The increasing trend in PIB funds (even after recent cuts) is a positive development. Please note that EU co-financed projects are initially financed by national funds and only after their completion are EU funds released. PIB expenses are systematically overestimated in the budget[20] as they are relatively ease to reduce when the need arise. This time PIB expenses are increasing as the fiscal adjustment effort focuses elsewhere, in an obvious attempt to achieve longer lasting results.

As already mentioned, 71% of the PIB corresponds to EU co-financed projects, which fall under the National Strategic Reference Program 2007-2013 (4th CSF). EU structural funds form the bulk of available investment funds; especially today that external financing is difficult and expensive to secure.

5.2 NSRF 2007-2013

The proper execution of the NSRF[21] is of critical importance both for the smooth implementation of the budget and for boosting private investments. NSRF has entered the 4th year of its programming period, but as far as implementation is concerned, not much has been done so far.

Under the previous government, the required legislation was introduced for setting up the needed public-administration structures, but little was done in terms of NSFR implementation. The system was criticized for adding complexity and more bureaucracy to an already problematic system. Until the October 2009 national elections many of the planned structures and organizations were not operational.

A down payment of €400mn was made by the EU Commission on approval of the NSRF's operational programs. Also, following negotiations with the EU Commission a list of projects was approved in 2008 to act as a bridge between the 3rd CSF and the NSRF. These projects, worth approximately €7bn, will be financed by both programs. According to the Ministry of Economy (February 2010 press conference) only 5% of available EU funds under the NSRF have been cashed out – with 2% of this corresponding to down payments. An ambitious target was set to reach 15% by the end of 2010.

A number of measures and adjustments to the administrative system were announced to help achieve this goal:

- By March 10 2010, all sectoral and regional programs must submit to the Ministry new more specific operational plans for approval, including timetables and detailed projects. Funds will be approved according to these new programs.
- Implementation will be monitored and evaluated every two months.
- Reallocation of funds can be made at any time between operational programs and even between subprograms. Note that under the 3rd CSF, reallocation of funds was a time-consuming and complex process.
- A number of procedures and organizations are cancelled.
- Regional projects, with a budget up to € 50mn., no longer require an approval by central Ministries (the limit was raised from € 5mn.).
- EU co-financed projects have now an absolute priority over nationally-funded projects.

[20] See Eurobank EFG Research, Economy & Markets, December 2006, "The sizable historical deviations from the Greek Central Government's Budget" for further analysis.
[21] Available EU funds under 13 operational programs (regional and sectoral) are €20.4bn, which together with €11.5bn of national funds and €7.5bn of private funds amount to a total €39.4bn of available funds.

The law[22] making the necessary adjustments will be brought to parliament in March. In another relevant development the Greek Ministry of Economy has asked for a €2bn loan from the European Investment Bank in order to facilitate the funding of the NSRF. This loan will provide the necessary funds to cover the national part of the funding. The terms were reported by the press as being favorable: a rate close to Euribor and a 25 to 30 years repayment period.

5.3 CSF III 2000-2006

The execution of the 3rd CSF program in the period 2001-2008 proceeded at a slower pace than required to secure a smooth absorption of EU funds (2008 was supposed to be the final year of the program). A number of measures[23] gave a largely-artificial boost to public expenditure, but even these proved insufficient. As we described in detail in our July 2008 Macro Monitor, the EU Commission came to the rescue granting a one-year extension for public spending in projects affected by the August 2007 wild fires[24]. Also in an effort to avoid loss of funds due to the cancellation of projects, managing authorities have signed contracts exceeding 100% of available public funds for many programs. Note that the signing of a legal contract precedes the execution of projects. The percentage of public funds that has been committed to particular projects through the signing of legal contracts reached 118% in October 2009. The financing of many of these projects will have to be secured through the NSRF. Until February, 1st 2010 94.7% of total EU funds had been cashed out, or €21.5bn out of a total available amount of €22.7bn. According to the Ministry of Economy, public spending has reached 100% and there is going to be no loss of funds.

[22] The current law concerning the administrative system of the NSRF is Law 3614/2007.
[23] These efforts included restructurings of the program and transferring of already completed projects under the purely nationally funded part of the Public Investment Program (PIB) to the co-financed part. Finally the commission allowed higher levels of co-financing. That means that a higher percentage of projects expenses will be financed by EU funds than it was initially planned. For more details see previous issues.
[24] Wild fires in the summer of 2007 devastated the four regions mentioned above, causing unprecedented loss of life and property. See March's and July's 2008 issues of Macro Monitor.

Part 6:

Greece's Sovereign Debt Crisis: Reforms Needed to Confront the Credibility, Fiscal and Competitiveness problems

By Theodoros Stamatiou[25]

Key points

- The Government needs to convince financial markets that it has both the ability and determination to address the Credibility, Fiscal and Competitiveness problems.
- A range of measures aims to improve data reporting and reinstate the credibility of fiscal accounts.
- A series of new bills aims to facilitate a rapid and lasting improvement in its fiscal accounts.
- Reforms aiming to tackle the competitiveness problem the Greek economy is currently facing will take more time to implement. Nevertheless, the need for their introduction is imminent.

6.1 Greece's Sovereign Default Crisis: Reforms Needed

The Greek Government estimates that it has to borrow around € 53bn from domestic and international markets this year in order to cover its rollover and deficit-financing needs (some €13bn has been raised so far via two syndicated issues of 5-year and 10-year coupon bonds). Raising such a large amount becomes even more difficult in view of the fiscal, credibility and competitiveness problems the country is presently facing. To accomplish this, the Government needs to convince financial markets that it has both the ability and determination to address these problems. In what follows, we briefly present the process made so far on these fronts.

6.2 Confronting the Credibility Problem

In the new Stability and Growth Programme (SGP), the Government has proposed a range of measures aiming to improve data reporting and reinstate the credibility of fiscal accounts. Three of these have been already implemented. The first measure involves a new legislation for rendering the statistical service independent. Basic purpose of this reform is to overcome problems caused by political interference in the processing and reporting of statistical data. The Greek Parliament voted for the independent Hellenic Statistical Authority legislation on March 3rd. The remaining measures include the monthly reporting requirement for all line ministries and the formation of inter-ministerial working groups that will monitor and enforce budget targets. In addition, three measures will be on the in the epicenter of the Government's credibility-improvement efforts in the period ahead. The first includes the introduction of a system of checks and balances that will ensure improved accuracy in the reporting of fiscal statistics. Its implementation requires a ministerial decision, which is expected by mid-March. The second measure includes the creation of a Budget Office under the auspices of the Greek Parliament, with the mandate to audit fiscal accounts on a monthly basis and examine and monitor the annual- and multi-annual budgets. New legislation for the Budget Office is expected in the 3rd quarter of 2010. The fourth measure includes the introduction of fiscal rules for the effective medium-term execution of the budget. New legislation on fiscal rules is expected by mid 2010. The rules will be implemented in the 2011 budget.

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6.3 Confronting the Fiscal Problem

The Government has already proposed a series of new bills aiming to facilitate a rapid and lasting improvement in its fiscal accounts. The public sector wages bill is the first of these. It took its final form after the PM's announcement on March 3rd. It includes a 30% cut in the Christmas, Easter and holidays bonuses to public-sector employees (central and general government), a 12% reduction in civil-servant wage supplements and a 30% upper limit for overtime payment. Other measures include: **a)** Cuts in special budget transfers to local governments and various other entities in the broader public sector. **b)** Reduced subsidies to OTE and PPC pension funds. **c)** A horizontal freeze in state pensions. **d)** Abolition of special public-sector committees earning income. **e)** A 50% reduction in board compensations and the elimination of bonuses in the broader public sector. These measures constitute the key elements in the Government's effort to reduce wage expenditures.

In view of the seriousness of the current fiscal situation, a number of revenue-side measures have been also announced. These include increases in VAT rates (from 19% to 21%, from 9% to 10% and from 4.5% to 5%) as well as further hikes in indirect taxes on tobacco products, gasoline, electricity and luxury goods.. Additional tax measures include **a)** A 1% special levy on individuals that declared incomes in excess of €100k in FY 2009 **b)** A rise in the effective tax rate on personal incomes in excess of €100k from 40% to 45%. **c)** The tax rate on property worth over €5mn will be raised to 2.0% from 0.1%, currently. **d)** A rise of the effective tax rate applied to real estate owned by offshore companies to 15% from 3% and **e)** Taxation of church property and income. The Greek Parliament voted the above bill on March 5th.

The new tax bill includes a new progressive, uniform, tax scheme to be introduced by March 2010 (and be applied retroactively from 1.1.2010) that will include a reduction on the threshold of the top tax rate from €75,000 to €60,000. The new tax scale implies tax cuts to annual incomes below €40,000 and increases for incomes above this sum. The new system will encompass all sources of income including dividends and will also abolish of a wide range of tax exemptions. The new scheme will also tax income generated from offshore companies and there will be measures to fight tax evasion, including among others the ex-post checking on the provenance of various possessions and a "tax-point system" for firms. The Greek Parliament is expected to vote for the new tax bill by the start of March.

A new bill aiming to overhaul the pension system will also be introduced in the following months. The bill is expected to introduce by 2015 a 2-years increase in the effective average retirement age to 63 years of age, the abolishment of all incentives for early retirement and measures to encourage workers to stay in the job market longer. There will be a harmonization of the male and female retirement age according to the EU directives. In addition, the health care and pension systems will be separated, with the former being incorporated into the National Health System. Finally, the social-security fund reserves will be managed by an independent entity overseen by the Bank of Greece.

6.4 Confronting the Competitiveness Problem

Reforms aiming to tackle the competitiveness problem the Greek economy is currently facing will take more time to implement. Nevertheless, the need for their introduction is imminent. The Ministry of the Economy, Competitiveness and Shipping (MECS) will try to improve the investment environment in Greece by:

a) Introducing the necessary changes to the legislation concerning the management framework of the National Strategic Framework (NSRF – ESPA). Decentralization, simplification of procedures and efficiency will be the primary aims of that reform. The new law is expected to be voted in Parliament by the end of March. Note here that according to MECS there are currently discussions with the European Development Bank and the Council of Europe Development Bank on ways to facilitate the financing of the National contribution of the ESPA projects[26]. This is important because the current fiscal environment and the additional cuts on the Public Investment Programme (announced by the PM on March 3rd) limit the adequate financing of ESPA projects by the government budget.

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[26] For more information refer to "Public Investment and EU Structural Funding: Getting Back on Track" in this volume.

b) Two new bills on the simplification and the speeding up of the process needed to start-up, licensing and operate a new business. The first bill will aim to reduce the time needed to start-up a business from 35 days to 1 day. Note that Greece was ranked in the 109th place in World Bank's 2009 "Doing Business" ranking due to the absence of related reforms[27]. The new law is expected in Parliament by the end of March. A second bill to improve the licensing and the operation of new firms is expected by the end of June. According to MECS, these two bills intend to improve the "Doing Business" rankings by 65 to 70 positions.

c) The speeding up of the process for approving funds under Greece's Public Investment Programme (target of €9.8bn approved by the end of 2010).

d) The creation of the Greek Development Fund which will aim to facilitate the financing of investments in "Green" Infrastructure and Energy and start-ups of "innovative"' firms. The Greek Development Fund is expected to begin its operations by June 2010. Preliminary talks started between the MECS, the Bank of Greece and potential investors have already started (there was a related visit of the Minister of Economy, Competitiveness and Shipping in Abu Daby on Feb, 21).

e) The introduction of changes in the Greek investment law so as to speed-up the process of financing new investments. The new law is expected in the Parliament by the end of June.

6.5 Greece's Sovereign Debt Crisis: The Critical Dates Ahead

The introduction of the above reforms will take place under a very strict timetable posed by the EU Authorities. The key dates of this timetable are presented below.

Table 6.1: Critical Dates

Date	Organization	Decision
March, 25th	European Council	The Spring European Council will address the new European strategy for jobs and growth. The Greek case is expected to be at the center of the discussions especially with regards to the form and modalities of an EU financial aid package for Greece
April 1st	NSSG and Eurostat	EDP Procedure (i.e. Eurostat notification for the forecasted 2010 deficit and the 2006-2009 deficits.)
May 15th	Greek Government	Deadline for the announcement of all the necessary measures for the deficit reduction Report presenting all the necessary measures for the deficit reduction.

Note: Reports prepared by the Greek Government with respect to the implementation of the SGP after May 15th will be submitted on a quarterly basis according to the February 16th ECOFIN Council announcement (i.e. the next report will be on June 2010).

[27] Refer to Greece Macro Monitor (November 2009) for more information on Greece's World Bank "Doing Business" rankings.

Greece: Eurobank EFG Forecasts				
	2007	2008	2009	2010f
Real GDP (yoy%)	4.5	2.0	-2.0	-2.8
Private Consumption	3.3	2.3	-1.9	-6.2
Government Consumption	8.4	0.6	10.0	-5.0
Gross Capital Formation *(Fixed)*	4.6	-7.4	-19.5	-4.5
Exports	5.8	4.0	-16.0	2.5
Imports	7.1	0.2	-24.7	-10.5
Inflation (yoy%)				
HICP (annual average)	3.0	4.2	1.3	2.7
HICP (end of period)	3.9	4.2	2.2	2.7
Fiscal Accounts (%GDP) - *EU Methodology*				
General Government Balance	-3.7	-7.7	-12.7	-8.7
Gross Public Debt	95.6	99.2	113.4	120.4
Primary Balance	0.4	-3.2	-7.7	-3.5
Labor Statistics				
Unemployment Rate (% of labor force)	8.3	7.7	9.5	10.5
Wage Growth *(total economy)*	8.7	5.9	4.4	-1.9
External Accounts				
Current Account (% GDP)	-14.4	-14.6	-11.2	-7.4
Domestic Credit	**2007**	**2008**	**Q3 09**	**Q4 09**
Total Credit (%GDP)	108.9	117.5	122.7	124.1
Credit to Enterprises (%GDP)	49.1	55.4	56.0	56.3
Credit to Households (%GDP)	45.9	48.9	49.9	50.2
Private Sector Credit (yoy)	95.0	104.3	105.9	106.5
Credit to Deposits (Private sector) (%)	108.7	109.5	105.7	106.3
Financial Markets	**Current**	**3M**	**6M**	**12M**
Policy Rate	1.00	1.00	1.00	1.25
EUR/USD *(Bloomberg survey)*	1.35	1.37	1.38	1.32

Source: National Sources, Eurostat, Bloomberg, Eurobank Research

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