# Focus Greece
## *The mathematics of the new bailout*

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**The present report constitutes the *second* installment of a comprehensive *Eurobank EFG Research* study on the new €130bn bailout package for Greece that was officially endorsed by the Eurogroup on February 21, 2012. It provides a quantitative analysis on the benefits of the new package for the country's sovereign solvency outlook as well as the evolution of the government's borrowing needs and sources of funding until 2020. The first installment of our study, published earlier this week, provided a detailed overview on the main parameters and conditionality of the new rescue program as well as an updated timeline of the key dates and events in the crucial weeks ahead (see Greece Macro Monitor Feb 21, 2012). The next one, to be published by early next week, will review the modality and mathematics of the upcoming market-based debt restructuring (PSI).**

### New rescue package – key figures

The new rescue package for Greece that was officially endorsed at the February 21st Eurogroup consists of:

— €100bn of new official (EFSF/IMF) financing for the period 2012-2014; and
— €30bn in the form of 2-year EFSF bills to be offered (in lieu of cash) to private-sector bondholders participating in the debt exchange (PSI).

***Notes:***

- The exact IMF participation in the new rescue program has not been clarified yet (it will be decided by the Fund's Board in the second week of March 2012).
- Some €34bn of committed financing under the 1st EU-IMF programme (Greek Loan Facility) still remains unutilized.
- The July 21st EU Council decisions apply as to the new (more favorable) terms of 2nd lending program - **i.e.,** average maturity of new EFSF loans to be extended from ca 7.5 years to a minimum of 15 years and up to 25 years with a grace period of 10 years; EFSF funding to remain at cost (Feb 2012 IMF/EC/ECB DSA).
- The interest rate on already disbursed EU bilateral loans will be lower by 150bps (Eurogroup Feb 21st Statement).
- As per the October 26-27th EU Summit Statement, a *temporary* EFSF credit enhancement (up to €35bn) will be provided to ensure collateral eligibility of Greek sovereign bonds in ECB liquidity operations. Presumably, the EFSF credit enhancement will remain in place for as long as Greece's sovereign debt rating remains on "selective default" as a result of the debt swap. This amount is not included in the €100bn figure (new EFSF/IMF financing) quoted above.

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**Impact on solvency**

The new rescue package is expected to have a significant beneficial effect on the country's solvency outlook. This will be mainly due to:

— An upfront (gross) reduction in the general government debt burden by ca €107bn as a result of the PSI *i.e.*, 53.5% reduction in the nominal face value of *eligible* Greek sovereign bonds held by private investors. The €107bn figure quoted above assumes full (100%) investor participation in the debt exchange, compared to 95% participation assumed in the Feb 2012 IMF/EC/ECB DSA.

— A significant decline in the government's interest rate expenditure as a result of:

a. lower interest rates on new and old EU/EFSF loans;
b. lower coupon payments on the new government bonds post the debt exchange (lower coupon rates applied to discounted principal);
c. extended maturity profile and a 10-year grace period for new and old EU/EFSF loans; and
d. extended maturity profile of new discounted government bonds to be offered to private sector investors participating in the debt exchange. Note that the latter two factors, c) and d), will particularly affect (i.e., compress) interest rate expenditure in the initial 10-year period after the signing of the new rescue program.

***<u>Notes & tables</u>***

o As per the new baseline scenario laid out in the revised IMF/EC/ECB DSA (Feb 15, 2012), the terminal value of the gross public debt-to-GDP ratio in FY2020 is 129%. This compares with a corresponding figure of 120%-of-GDP envisaged in the Dec 2011 IMF baseline projections (5th Review of Greece's adjustment programme). Following the debt-reducing operations decided at the February 21th Eurogroup, the general government debt-to-GDP ratio is projected to reach 120.5% in 2020 (table A1):

**Table A1 – Terminal gross public debt to GDP ratio in 2020 (based on the new IMF/EC/ECB baseline projections & the debt-reducing operations decided at the Feb. 21 Eurogroup)**

| | |
|---|---|
| **1. Terminal gross public debt ratio in FY 2020 - New IMF/EC/ECB baseline** | **129%-of-GDP** |
| **Debt-reducing operations decided at the Feb 21, 2012 Eurogroup** | |
| ***Cummulative impact in ppts-of-GDP (period 2012-2020)*** | |
| 2.1 Lower interest rates on (already disbursed) EU bilateral loans | - 2.8ppt-pf-GDP |
| 2.2 Future income accrued to GGB portfolios of Member State central banks (to be allocated to reduce Greek public debt) | -1.8ppt-of-GDP |
| 2.3 Incremental impact of debt exchange (due to tougher PSI terms) | -3.7ppt-of-GDP |
| **2. Total impact of debt-reducing operations (2.1+2.2+2.3)** | **-8.5ppt-pf-GDP** |
| **3. Terminal gross public debt ratio in FY 2020 *inclusive* of debt-reducing operations (1-2)** | **120.5%-of-GDP)** |

Source: IMF, EC, ECB, Eurobank EFG Research

o It is still *unclear* whether profits on the ECB's Greek bond holdings will be allocated to reduce Greece's debt burden. As per the Feb. 21st Eurogroup statement, the ECB will channel the profits generated by the Greek government bonds it bought over the past two years under its Securities Markets Programme to euro area countries, via the national central banks, in accordance with its statutory profit distribution rules. Then, these profits "may be" allocated by member states to further improving the sustainability of Greece's public debt.

o Table A2 on the next page shows the main underlying assumptions and the evolution of the gross debt to GDP ratio envisaged in the new IMF/EC/ECB baseline scenario (before and after the debt-reducing operations decided at the Feb 21st Eurogroup).

- **Table A2 – Evolution of public debt ratio (before and after the debt-reducing operations decided at the Feb 21st Eurogroup)**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|
| **IMF/EC/ECB baseline scenario (Feb 2012 DSA)** | | | | | | | | | | |
| Real GDP growth (%) | -6.1 | -4.3 | 0.0 | 2.3 | 2.9 | 2.8 | 2.8 | 2.6 | 2.5 | 2.2 |
| GDP deflator (%) | 1.7 | -0.7 | -0.4 | 0.0 | 0.8 | 1.0 | 1.3 | 1.5 | 1.7 | 1.8 |
| Nominal GDP growth (%) | -4.5 | -5.0 | -0.4 | 2.3 | 3.7 | 3.8 | 4.1 | 4.1 | 4.2 | 4.0 |
| Primary balance (% GDP) | -2.4 | -1.0 | 1.8 | 4.5 | 4.5 | 4.5 | 4.5 | 4.3 | 4.2 | 4.3 |
| Avrg. nominal interest rate on debt (%) | 4.7 | 2.1 | 3.8 | 4.0 | 4.1 | 4.2 | 4.2 | 4.3 | 4.3 | 4.2 |
| **Public sector debt (% of GDP)** | **164** | **163** | **168** | **166** | **160** | **154** | **147** | **141** | **135** | **129** |
| **IMF/EC/ECB baseline scenario after debt-reducing operations decided at the Feb 21, 2012 Eurogroup** | | | | | | | | | | |
| Real GDP growth (%) | -6.1 | -4.3 | 0.0 | 2.3 | 2.9 | 2.8 | 2.8 | 2.6 | 2.5 | 2.2 |
| GDP deflator (%) | 1.7 | -0.7 | -0.4 | 0.0 | 0.8 | 1.0 | 1.3 | 1.5 | 1.7 | 1.8 |
| Nominal GDP growth (%) | -4.5 | -5.0 | -0.4 | 2.3 | 3.7 | 3.8 | 4.1 | 4.1 | 4.2 | 4.0 |
| Primary balance (% GDP) | -2.4 | -1.0 | 1.8 | 4.5 | 4.5 | 4.5 | 4.5 | 4.3 | 4.2 | 4.3 |
| Avrg. nominal interest rate on debt (%) | 4.7 | 2.0 | 3.7 | 3.9 | 4.0 | 3.9 | 3.9 | 4.0 | 4.0 | 3.9 |
| **Public sector debt (% of GDP)** | **163.9** | **159.0** | **163.7** | **161.7** | **155.1** | **148.2** | **140.7** | **134.0** | **127.2** | **120.5** |

Source: IMF, EC, ECB, Eurobank EFG Research

- Total interest rate savings – as a result of: a) more favorable terms applied to new and old EU/EFSF loans and b) the PSI operation - will amount to ca €98bn in the period 2012-2020 (Eurobank EFG Research estimate). In percentage points-of-GDP terms, the corresponding saving due to lower interest rate expenditure will be ca 4.7 per annum (table A3).

**Table A3 – Total interest rate expenditure before and after the new bailout package (in billions of euros and in ppts-of-GDP)**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|
| | *In billions of euro* | | | | | | | | |
| **Before 2nd bailout package**<br>*Based on IMF's July 2011 DSA* | 18.2 | 19.7 | 22.0 | 23.1 | 22.4 | 24.0 | 26.4 | 26.4 | 26.9 |
| **After 2nd bailout package**<br>*Based on IMF/EC/ECB Feb 2012 DSA & Feb 21st Eurogroup* | 7.1 | 12.1 | 13.1 | 13.6 | 13.1 | 13.0 | 13.2 | 13.1 | 12.6 |
| | *In ppt-of-GDP* | | | | | | | | |
| **Before 2nd bailout package**<br>*Based on IMF's July 2011 DSA(*)* | 8.8% | 9.6% | 10.5% | 10.6% | 9.9% | 10.2% | 10.8% | 10.3% | 10.1% |
| **After 2nd bailout package**<br>*Based on IMF/EC/ECB Feb 2012 DSA & Feb 21st Eurogroup* | 3.5% | 5.9% | 6.2% | 6.2% | 5.8% | 5.5% | 5.4% | 5.1% | 4.7% |

Source: IMF, ECB, EC, Eurobank EFG Research
(*) Based on new baseline GDP projections (Feb 2012 DSA)

***Concluding remarks to this section***

— The new bailout package implies significant benefits to Greece's solvency outlook, mainly as a result of: a) an upfront *gross* public debt reduction of ca €107bn due to the PSI (assuming near universal participation); and b) a significant decline in interest rate expenditure i.e., by an estimated 4.7ppt-of-GDP per annum.

— Apparently, the aforementioned results are sensitive to the underlying assumptions regarding nominal GDP

growth, fiscal primary balances, privatization revenue and other debt-creating flows. The good news is that the latest (Feb. 2012) baseline DSA seems to incorporate much more plausible and realistic assumptions than both the 5th & 4th program reviews (Dec 2011 and July 2011, respectively).

**Impact on sovereign liquidity**

The new bailout programme (inclusive of the upcoming debt exchange) aims to broadly cover the government's borrowing requirement for the period 2012-2014. The Feb. 2012 IMF/EC/ECB preliminary DSA report states that "*Official financing needs between 2012 and 2014 would be about €170bn before further actions to reduce debt (or about €136bn additional to what is already in the existing program). For the period 2015-2020 official financing needs could amount to €50 billion (against before actions to reduce debt), although this figure could be a little lower if Greece is able to gain some limited market access in the last years of the decade."*

***Notes & tables***

- The *€170bn* figure quoted above (official financing need between 2012 and 2014) incorporates €34bn of still-undisbursed fund commitments under the 1st EU-IMF program (Greek Loan Facility).
- The *€136bn* figure - official financing in excess of the 1st EU-IMF program commitments - implies an incremental financing need of €6bn over the program period (2012-2014). However, the latter has been broadly covered by the debt-reducing operations decided at the Feb 21st Eurogrroup (= **€1.4bn** from lower interest rates on already-disbursed EU bilateral loans + **€1.8bn** from future income accrued to GGB portfolios of member state central banks that will be allocated to reduce Greece's public debt + **additional financing** from somewhat more aggressive PSI terms relative to those assumed in the Feb 1012 DSA).
- The €50bn official financing need for the period 2015-2020 quoted in the Feb. 2012 preliminary DSA does not incorporate the debt-reducing operations decided at the Feb 21st Eurogrroup. As such, the new baseline macro scenario actually implies an even lower figure for the corresponding period.
- As a point of reference Table A4 depicts the evolution of Greece's government gross borrowing need and financing source in the period 2012-2014. The table is based on baseline estimates provided at the 5th IMF review (Dec 2011). We will update and publish again this table once we have more info on the projections of new rescue program.

**Table A4 – General government gross borrowing need and financing source for the period 2012-2014 (5th IMF Review of Greece's adjustment program, Dec 2011)**

| | 2012-2014 |
|---|---|
| **A. Gross borrowing need (€bn)** *(deficit financing, amortizations, other)* | **241.8** |
| **B. Gross financing source (€bn)** *(privatization receipts, issuance of S-T debt, other)* | **52.6** |
| **Financing gap (A-B)** | **189.3** |
| **Sources of funding:** | |
| Remaining funds under 1st EU-IMF package | **34.0** |
| PSI financing | **61.1** |
| New official funding under 2nd bailout package | **94.3** |
| **Total financing source** | **189.3** |
| Projected issuance of MLT bonds | **0.0** |

Source: IMF, Eurobank EFG Research

***Concluding remarks to this section***

— The new bailout package offers full coverage of the government's borrowing requirement in the period 2012-

2014. That is, provided that the domestic macro economy and relevant fiscal variables evolve as projected in the new DSA baseline scenario.

— The government's financing gap will fall bellow €50bn cumulatively in the period 2015-2020, an amount that could presumably be covered by a combination of domestic sources (e.g. additional privatization revenue) and some extra external financing.

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