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INTERNATIONAL MONETARY FUND

IMF Country Report No. 16/130

GREECE

PRELIMINARY DEBT SUSTAINABILITY ANALYSIS—UPDATED ESTIMATES AND FURTHER CONSIDERATIONS

May 2016

This preliminary draft DSA was prepared by Fund staff in the course of policy discussions with the authorities and European institutions in recent months. This document was distributed to the Executive Board of the IMF in the morning of May 23, 2016, but was neither discussed nor approved by the IMF's Executive Board.

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6. **Under the GFN framework, achieving debt sustainability requires maintaining GFN at low levels for a prolonged period to allow debt to decline sufficiently before Greece can return to markets on a larger scale.** It is a question of judgment how low financing needs would need to be and for how long they should be maintained to ensure that Greece can return to the markets on sustainable terms. Ultimately, as argued by staff in the June 2015 DSA, any debt restructuring solution would need to achieve two key objectives. First, it should maintain gross financing needs well within the 15-20 percent of GDP thresholds defined in the MAC DSA for emerging-advanced economies throughout the projection period (2060). The lower bound would need to be binding at least for the foreseeable future, until Greece's institutional framework is sufficiently strengthened to bring it to the standard of advanced economies. Second, it should ensure that debt is on a sustained downward path. In other words, solutions that provide only temporary flow relief but do not deliver a declining debt path over the projection horizon would not be consistent with sustainability.

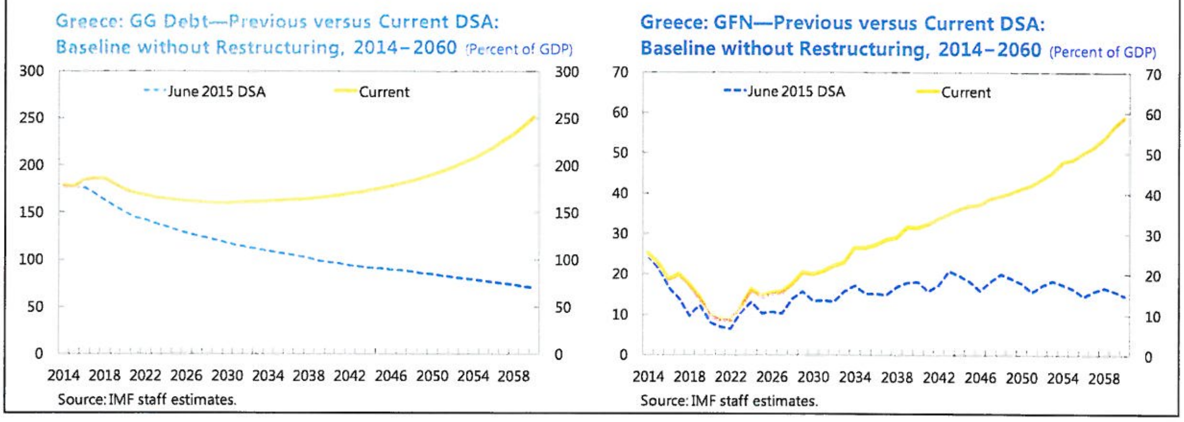
7. **Staff's analysis suggests that satisfying these objectives would require gross financing needs to remain not only below 15 percent of GDP, but below 10 percent until about 2040, rising to 20 percent by 2060.** This is similar to staff's conclusion in the June 2015 DSA. The low GFN until 2040 is essential to allow time for debt to decline sufficiently to permit borrowing at interest rates consistent with debt sustainability, such that the debt path can stay on a declining trend thereafter. For example, fixing financing needs at 15 percent of GDP until 2040 would entail an insufficient reduction in the debt level, as it would imply market financing at interest rates that would not be consistent with debt sustainability (both GFN and debt would embark on a rising trend after 2040).

III. BASELINE PROJECTIONS AND RESTRUCTURING MODALITIES

8. **Under staff's baseline assumptions, there is a substantial gap between projected outcomes and the sustainability objectives noted above.** The revised projections suggest that debt will be around 174 percent of GDP by 2020, and 167 percent by 2022. The gap relative to the objectives under the new GFN framework is also very significant. Gross financing needs cross the 15 percent-of-GDP threshold already by 2024 and the 20 percent threshold by 2029, reaching around 30 percent by 2040 and close to 60 percent of GDP by 2060. Debt is projected to decline gradually to just under 160 percent by 2030 as the output gap closes, but trends upwards thereafter, reaching around 250 percent of GDP by 2060, as the cost of debt, which rises over time as market financing replaces highly subsidized official sector financing, more than offsets the debt-reducing effects of growth and the primary balance surplus.[2]

[2] The debt-stabilizing primary balance can be approximated by (r – g) times the debt/GDP ratio, where r and g are the nominal interest rate and GDP growth rates, respectively. For example, for (r – g) around 2 and debt of around 100 percent of GDP, a primary balance of 2 percent would be needed to stabilize the debt (and a higher one to bring debt down). For higher debt-to-GDP ratios, the primary surpluses need to be higher to stabilize debt and even higher to bring debt down to safer levels.

Figure 1. Baseline Scenario, 2014–2060



9. **A substantial reprofiling of the terms of European loans to Greece is thus required to bring GFN down by around 20 percent of GDP by 2040 and an additional 20 percent by 2060, so as to satisfy the objectives noted above and maintain debt on a downward path**. The debt restructuring modality that could satisfy these conditions would need to be based on a combination of three measures. While there are trade-offs in calibrating these measures, one set of calibrations that would yield the required adjustment is as follows:

- **Maturity extensions**: An extension of maturities for EFSF, ESM and GLF loans of, up to 14 years for EFSF loans, 10 years for ESM loans, and 30 years for GLF loans could reduce the GFN and debt ratios by about 7 and 25 percent of GDP by 2060 respectively. However, this measure alone would be insufficient to restore sustainability.

- **Payment deferrals**: EFSF loans have already been extended before, and ESM loans have been provided with long grace and maturity periods. Extending the deferrals on debt service further could help reduce GFN further by 17 percent of GDP by 2040 and 24 percent by 2060, and—by allowing Greece to benefit from low ESM interest rates for longer—could lower debt by 84 percent of GDP by 2060 (This would imply an extension of grace periods on existing debt ranging from 6 years on ESM loans to 17 and 20 years for EFSF and GLF loans, respectively, as well as an extension of the current deferral on interest payments on EFSF loans by a further 17 years together with interest deferrals on ESM and GLF loans by up to 24 years.)[3] However, even in this case, GFN would exceed 20 percent by 2050, and debt would be on a rising path.

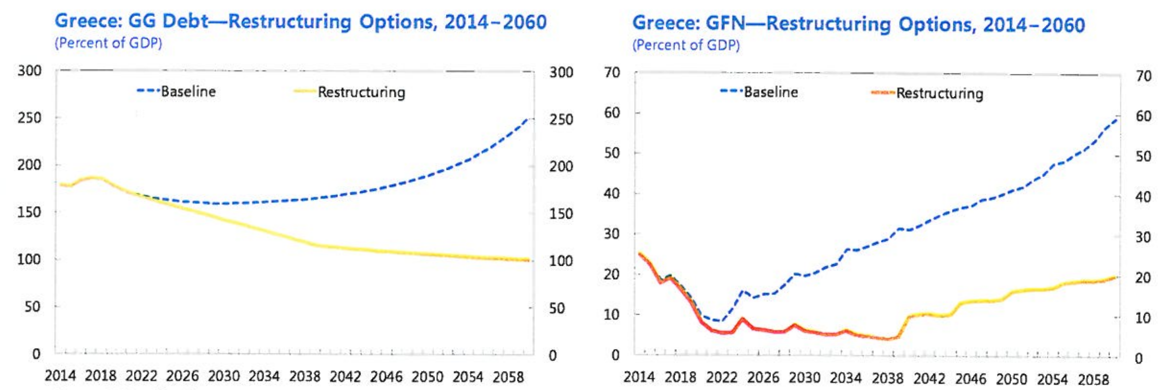
- **Fixed interest rate**: To ensure that debt can remain on a downward path, official interest rates would need to be fixed at low levels for an extended period, not exceeding 1½ percent until 2040. In this regard, the ESM could attempt to take advantage of the still favorable interest rate

[3] Interest on deferred interest accrues at a fixed rate of 1½ percent per year until 2040 after which it accrues at the long-run official rate of 3.8 percent.

environment by trying to lock in rates for the entire stock of EFSF/ESM loans at the current long-term market rates, in addition to eliminating the spreads currently applied to GLF loans. If the market for long-dated bonds cannot absorb the whole estimated stock of about €200 billion that would have to be placed during the duration of the program, member states would need to find another way to ensure that the cost of refinancing Greek debt in an environment where long-term rates gradually normalize is not placed on Greece. Thus, the fixing of the interest rates would in effect require a commitment by member states to compensate the ESM for the losses associated with fixed interest rates on Greek loans, or any similar commitment. This would clearly be highly controversial among member states in view of the constraints—political and legal—on such commitments within the currency union. Adding this measure to the two noted above helps to reduce debt by 53 percent of GDP by 2040 and 151 percent by 2060, and GFN by 22 percent by 2040 and 39 percent by 2060, which satisfies the sustainability objectives noted earlier (Figure 2).

10. **The proposed debt restructuring generates savings of around 50 percent of GDP in net present value (NPV) terms over the projection horizon.**[4] Of this, 18-24 percent of GDP (€31-42 billion) is due to the fixing of the interest rate, while the remainder is due to the deferral of payments and maturity extensions. Importantly, extended payment and interest deferrals without fixing the underlying interest rate would not suffice, as the stock of deferred interest would compound at relatively high floating rates, which would further expose Greece to interest rate risk.

Figure 2. Debt Restructuring, 2014–2060



Source: IMF staff estimates.

Source: IMF staff estimates.

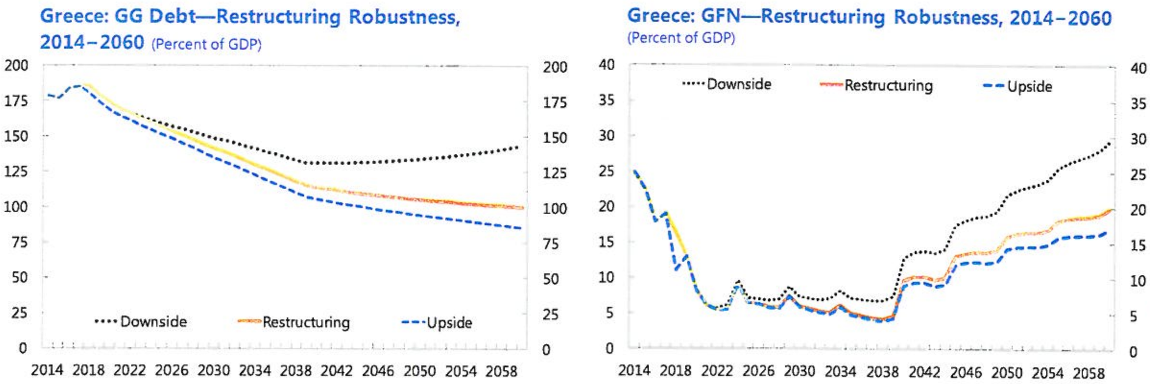
[4] An indicative discount rate of 3-5 percent is used for the NPV calculations, which are made for the projection horizon (2016-60).

IV. Sensitivity analysis and Considerations on the Implementation of Debt Relief

11. **Even under the proposed debt restructuring scenarios, debt dynamics remain highly sensitive to shocks.** Two shock scenarios are considered to assess the robustness of staff's proposed restructuring scenario:

- **Upside scenario:** Stronger-than-expected policies, resulting in somewhat higher growth (1½ percent) and no additional bank recapitalization needs, combined with debt restructuring as proposed by staff, would lead to lower Gross Financing Needs (remaining near 15 percent of GDP by 2060), and a faster reduction in debt, which generates a virtuous cycle of lower market interest rates and lower debt levels over the long run. This scenario illustrates the importance of advancing structural and financial sector reforms that can enhance productivity growth and ensure that the banking sector can support the economy over the long term.
- **Downside scenario:** If policies were weaker than expected, resulting in lower long-run growth (stabilizing at 1 percent) and a lower primary balance (stabilizing at 1 percent of GDP), debt sustainability would no longer be ensured even under staff's restructuring proposal with extensive payment deferrals and fixed interest rates. In this case, both the debt and gross financing needs dynamics would become unstable and rising over time, as the payment deferrals would no longer be sufficient to ensure that Greece can access markets at rates consistent with sustainability. To ensure sustainability under this scenario according to staff's proposed criteria, the interest on EFSF/ESM loans and deferred interest would need to be reduced to zero from the current low levels (in essence implying interest-free loans) until around 2050. Considering that even staff's assumption of a primary surplus of 1.5 percent for many decades to come is still quite optimistic by most metrics, this scenario illustrates the magnitude of the downside risks that remain in staff's DSA.

Figure 3. Robustness Scenarios, 2014–2060



Source: IMF staff estimates.

Source: IMF staff estimates.

12. **The implementation of debt relief should be completed by the end of the program period.** Providing an upfront unconditional component to debt relief is critical to provide a strong and credible signal to markets about the commitment of official creditors to ensuring debt sustainability, which in itself could contribute to lowering market financing costs. An upfront component can also help garner more ownership for reforms. At the same time, in view of the uneven record of policy implementation on the part of Greece, staff understands and supports the wish of Greece's European partners to make further relief contingent on program implementation.[5] However, debt relief conditional on policy implementation should not extend beyond the program period, as this would be inconsistent with the key requirement of a Fund program that adjustment be completed within the program period in order to catalyze investor confidence. In this case, where concerns about Greece's membership in the currency union weigh particularly heavy on confidence, it is critical to decisively end speculations in this regard by ensuring that measures needed to achieve sustainability are not dependent on assessment of program implementation for many years to come. The following modalities for the delivery of debt relief could be considered:

- **Short Term:** The next tranche of ESM financing could be provided on the new terms (lengthened maturity, payment deferrals, and fixed interest) to provide a strong signal to markets about European partners' commitment to deliver on all the elements of the restructuring.

- **Medium Term:** Fixing interest rates and deferrals of payments and maturity extensions should be implemented during the program period contingent on satisfactory progress with program implementation. For example, at the end of each successful year of program implementation, debt service, maturities, and interest rates corresponding to one third of the EFSF/ESM/GLF loan tranches could be restructured, with priority given to tranches with shorter maturities. Regarding the fixing of interest rates on existing loans, this could be implemented by the ESM by shifting its funding strategy from short-term to long-term financing , making use of both direct bond issuances and derivatives (swaps and options), which a number of AAA sovereigns have successfully done. If portions of the refinancing cannot be done fully through the markets, then member states might need to make additional commitments (see above).

- **Long Term:** To ensure sustainability with a high probability, provided that Greece borrowing from the IMF exceeds the Exceptional Access threshold, an automatic mechanism linking future debt service to non-policy related factors (such as GDP shocks) could be considered upon successful completion of the program to address vulnerability to shocks after the program period. This mechanism could take the form of instruments that incorporate symmetric adjustments to debt service in the event of GDP shocks, providing both protections to the debtor and some upside potential to creditors.

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[5] For example, for low income countries, the HIPC/MDRI initiatives provide for debt relief contingent on a set track record of program implementation.

13. **Staff's DSA takes into account the unique features associated with Greece's membership in the euro-zone.** The pledge by European leaders—first provided at the July 2011 Summit—to provide additional support, if needed, until full market access has been restored, provided the authorities adhere to their program, has been critical for staff's assessment that debt could be maintained on a sustainable path despite being projected to remain significantly above commonly accepted sustainability thresholds well into the future. The unprecedented support already provided by the ECB (through ELA) and the ESM (through NPV relief) attests to the importance of such commitments, as reflected in periodic signs of relative deposit stability and nascent recovery in market access during the program period. However, as experience also suggests, such commitments are not sufficient when adherence to the program falters, as evident in what have also been protracted periods of interruption in ESM (and IMF) disbursements and, most dramatically, in the loss of access to the ECB last summer, with the attendant imposition of capital controls. Thus, it is critical for the credibility of the DSA that it be based on ambitious but realistic policy commitments from the authorities. Equally important is the need for frontloaded debt relief, to be fully delivered during the program, and with an automatic debt relief mechanism after the program to ensure sustainability with high probability provided that Greece borrowing from the IMF exceeds the Exceptional Access threshold.