Is Italy going to make it?

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Will Italy be able to bring the government debt and its financing costs to a sustainable path as required by the new EU fiscal compact rules? How big are the primary balances that guarantee debt sustainability at the current high interest rates? Are these primary balances sustainable in the coming years? To provide answers to these questions, we present simulations predicting the evolution of the Italian debt-to-GDP ratio and we find that it is sustainable even at the current high interest rates, under the assumption of balanced budget starting in 2014.

Introduction. As the sovereign debt crisis continues to sweep through the Eurozone, questions regarding Italian public debt are at the core of the European economic and political debate. In order to add to such debate, we conduct a simple simulation exercise so as to predict the evolution of the Italian debt-to-GDP ratio. These simulations extend those in the BIS Quarterly Review (2011) by considering multiple scenarios regarding GDP growth and yield curve.

We find that the debt-to-GDP ratio is sustainable even at the current high interest rates under the assumption of balanced budget starting in 2014. In the predicted scenarios, however, sustainability crucially depends on a minimum positive growth rate for nominal GDP to occur in the coming years.

Outstanding Italian Government bonds. We use data on the outstanding bonds in Euro issued by the Italian government on November 2011, which amount to €1.52 trillion or about 95% of the Italian GDP (Ministry of Economy and Finance, 2011). We do not include loans and debt of local public authorities that are likely financed at non-market rates (total gross debt is equal to €1.9 trillion or about 120% of GDP).

Fiscal Policy Assumptions. We assume that the Italian government will be successful in balancing its budget from 2014 onward and will hence run deficits only in 2012 and 2013, which we set to be equal to 2.4% and 1.1% respectively, as estimated by the IMF. In our simulations, starting from 2014, Italy will issue new debt only to rollover outstanding debt coming to maturity. These new issues have same nominal value and maturity, thereby keeping the maturity structure of public debt unchanged.[1]

Cost of debt servicing scenarios. We consider three scenarios. In all scenarios, Government bonds issued before November 2011 carry an interest rate given by the yield curve as of April 2010. As a result, we suppose that all debt issued before November 2010 was issued at pre-crisis lower rates. As for the debt issued after November 2011, in the baseline scenario we assume it carries rates that correspond to the yields of April 2010 increased by 100 basis points. In the other two scenarios, all debt issued after November 2011 is financed either at the rates of the yield curve as of April 2010 (best case) or at the highest rates of the yield curve faced by investors on December 2011 (worst case). The worst-case scenario is based on a very conservative assumption, as it implies that the Italian government will pay the current high rates even

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[1] As for 2012 and 2013, we assume that the Italian Government issues new bonds to finance its budget deficits keeping the market-cap weighted maturity of debt in each year unchanged.

many years from today, when the debt-to-GDP ratio will be smaller given the assumption of balanced budget after 2014.

GDP Growth Scenarios. To make sensitivity analysis, we simulate three different possibilities for the growth rate of GDP in the case of the worst scenario. We use IMF estimates for the nominal GDP growth up to 2016, while we assume a constant annual nominal growth rate for the period 2016-2045. In the first possibility, nominal GDP growth is taken to be 3.5%, which corresponds to the average growth rate for the Italian economy in the period spanning the introduction of the euro and the onset of the financial crisis (i.e., 2001-2007). This nominal growth is compatible with a real annual GDP growth of 1.5% paired with annual inflation of 2%. In the second and third possibilities, nominal GDP grows at the rate of 2.4% (equal to the average annual growth rate of GDP of Germany for the period 2001-2007) and 5.2% (equal to the average annual growth rate of the GDP of the US for the period 2001-2007), respectively.

Simulations results: interest payments and outstanding debt. Figure 1 plots the interest payments on debt and the outstanding debt as a percentage of nominal GDP for the period 2012-2045 in the worst-case scenario. Nominal post-2016 GDP growth is assumed to be equal to the rate of 3.5%. Interest payments rise rapidly at the beginning of the period up to about 4.5% of GDP and then gradually decline to a value of about 2% in 2045. Since we assume a balanced budget starting in 2014, interest payments after this date correspond to primary surpluses. The debt-to-GDP ratio falls from about 95% of GDP to less than 60% in 2045. The figure also distinguishes between interest payments on debt issued before (blue) and after (red) November 2011. As debt issued before the sovereign crisis matures, new debt is financed at higher rates. Future changes of the yield curve will only affect the payments on the latter (the red bars).

FIGURE 1 AROUND HERE

Simulations results: different scenarios. Figure 2 and Figure 3 plots the interest payments as a percentage of GDP for different values of GDP growth rates and for different levels of the yield curve. Inspection of Figure 2 shows that if the yield curve were to revert to the 2010 levels (YTM 2010: best-case scenario), debt service costs would be lower by about 1% of GDP with respect to the costs under the 2011 levels (YTM 2011: worst-case scenario). The lower debt service costs would be still sizable even if the yield curve were to revert to that of 2010 plus 100 basis points (YTM 2010 + 100bp: baseline scenario).

FIGURE 2 AROUND HERE

Figure 3 highlights the effect of growth on the debt cost dynamics in the worst-case scenario (i.e. yield curve as of December 2011). If we set the post-2016 nominal growth rate to 3.5%, the debt service costs in terms of GDP would be approximately 4.5% in 2016 and about 2% in 2045. The possibility by which GDP nominal growth rate is set to 2.4% per annum captures the effect of low growth. In this case, by 2045 the debt cost would be around its long-run value of 2.9% of GDP. The third possibility considers a higher annual growth rate of 5.4%. Debt service costs hit the 3% mark just before 2030 and then decline to about 1% by 2045.

FIGURE 3 AROUND HERE

Caveat emptor. The results of our simulations are to be interpreted with care. The outcomes are very sensitive to the assumptions of balanced budget after 2014, constant GDP growth rates after 2016, fixed yield curve for all bond issued after November 2011 and unchanged maturity structure of public debt. These assumptions rule out feedback effects of the austerity measures required to balance the budget on GDP growth. As a result, we exclude the possibility that the austerity measures might backfire and start a vicious

circle in which tougher fiscal measures are needed to compensate for lower tax revenues due to the lower GDP growth. Accounting for the effects of fiscal policy is a daunting task that goes beyond the scope of this paper.

Political feasibility of large primary surpluses. A crucial assumption behind the findings of our simulation exercise is that Italy is able to run primary balance surpluses for many years: Italy needs to run primary balances between 4.6% in 2016 and 2.2% in 2045 to stabilize the long-run debt dynamics under the most pessimistic scenario on the interest rates. Whether such political commitment is credible is however an open question, but such large surpluses are not out of reach when compared to the historical values of Italian primary balances. From the Treaty of Maastricht in 1992 and up to the financial crisis of 2007, Italy ran an average annual primary surplus of 2.8% of GDP (see Figure 4). And Italy is not a lonely example. Belgium, another EU country with a historically high debt-to-GDP ratio, ran, in the same period, a primary surplus equal to an annual average of 4.8% of GDP. These fiscal efforts helped both countries to reduce their debt-to-GDP ratio: Belgium from about 130% to 84% of GDP; Italy from a peak of about 122% to 104% of GDP.

FIGURE 4 AROUND HERE

Conclusions. To conclude, we look at the evolution of the Italian debt-to-GDP ratio and conclude that it is sustainable even at the current high interest rates. The goal of economic adjustment is within reach, but, as also pointed out by Manasse (2011), requires hard sacrifices in terms of future primary balances. Current high borrowing costs might be motivated by the uncertainty regarding future growth rates and by the potential negative feedback effects of the fiscal measures on economic growth itself.

References

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Figures

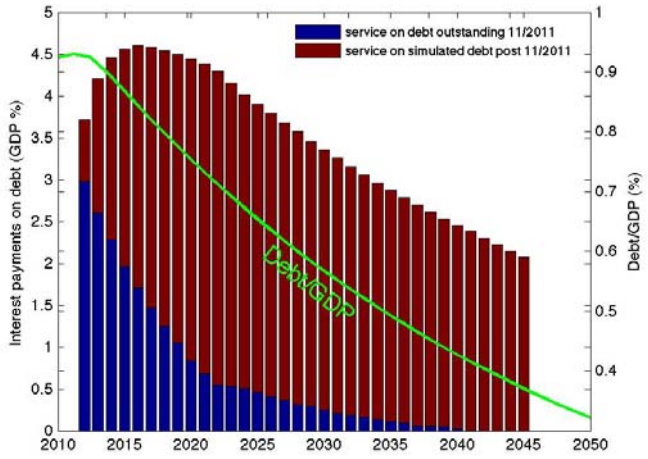

Figure 1. Interest payments on debt and outstanding debt as a percentage of nominal GDP for the period 2012-2045 in the worst-case scenario (i.e. yield curve as of December 2011). Interest payments on debt issued before November 2011 are represented by the blue bars. Red bars represent interest payments on debt issued after November 2011. The total value of public debt corresponds to the nominal value of outstanding bonds issued in Euro and does not include debt and loans to local public authorities. Data are from the Italian Ministry of Economy, IMF WEO 2011, and Finance and authors' simulations for bonds issued after November 2011.

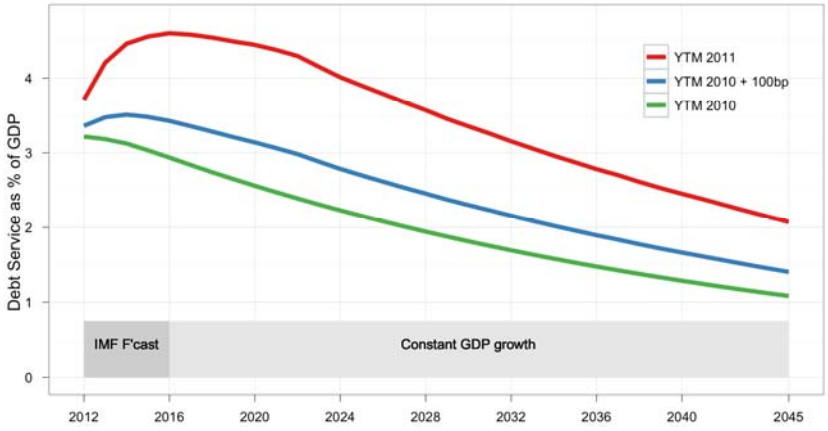

Figure 2. Interest payments as a percentage of GDP for different levels of the yield curve (YTM) used to compute the interest cost at different maturities for bonds issued after November 2011. The green line uses the pre-crisis yield curve as of April 2010 (best-case scenario). The blue line uses the yield curve as of April 2010 uniformly increased by 100 basis points (baseline scenario). The red line uses the yield curve as of December 2011 (worst-case scenario). The growth rates of nominal GDP are from the IMF up to 2016 and equal to 3.5% per annum after this date. Data are from the Italian Ministry of Economy and Finance, IMF WEO 2011, Bloomberg and authors' simulations for bonds issued after November 2011.

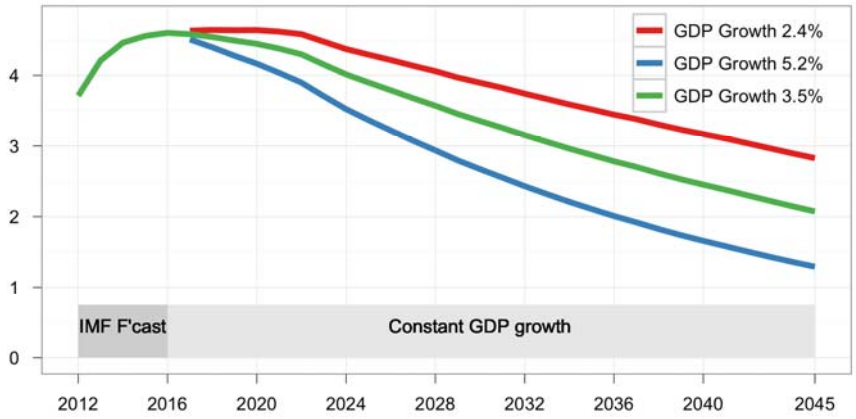

Figure 3. Interest payments as a percentage of GDP in the worst-case scenario (i.e. yield curve as of December 2011) for different assumptions on the growth rates of nominal GDP after 2016. Prior to 2016 GDP growth rates are from IMF forecasts. The red line describes the case in which GDP growth is 2.4%; the green line the case with GDP growth is 3.5%; the blue line the case in which GDP growth is 5.2%; Data are from the Italian Ministry of Economy and Finance, IMF WEO 2011, Bloomberg and authors' simulations for bonds issued after November 2011.

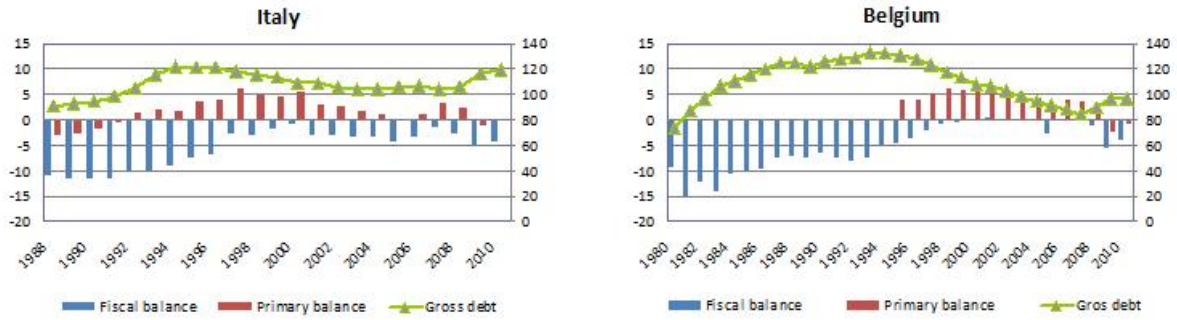

Figure 4. Fiscal balance, primary balance and gross debt (% of GDP) for Italy (left panel) and Belgium (right panel). Values for the fiscal balance and primary balance are reported on the left axis. Values for the gross debt are reported on the right axis. For Italy the sample is 1988-2010. For Belgium the sample is 1980-2010. In the case of Belgium, data on primary balance are not available before 1995. Data are from the IMF World Economic Outlook (WEO).