

Box 8

THE SUSTAINABILITY OF GOVERNMENT DEBT IN SPAIN AND ITALY

Tensions in euro area sovereign debt markets have persisted and even intensified during the summer months. The exceptionally high risk premia observed in the government bond prices of several euro area countries reflect, among other things, concerns among investors about the sustainability of government debt. This box presents illustrative scenarios for the path of the government debt-to-GDP ratios of Spain and Italy.

General approach and assumptions

The sustainability of government debt is usually analysed by making assumptions for certain key variables, notably GDP growth, the government primary balance, interest rates, inflation and any deficit-debt adjustments. Information on, or assumptions regarding, the structure of government debt are then used to make projections for government interest payments, the budget balance and debt. The following exercise is constructed in this vein.¹

For baseline scenarios, it takes as a starting point the latest macroeconomic and fiscal projections of the Spanish and Italian governments for the period 2012-15. As such projections may turn out to be too optimistic, additional, more adverse scenarios for GDP growth, interest rates and fiscal consolidation will also be presented.

The relevant baseline assumptions concern the path of real and nominal GDP, as well as potential GDP and the output gap. Thereafter, it is assumed that potential output will grow in line with the latest assumptions of the European Commission and the Economic Policy Committee (EPC),² namely that any remaining output gap after 2015 will gradually close at a rate of between 0.25% and 0.5% per annum, and that the rate of inflation will be below, but close to, 2%, in line with the ECB's monetary policy. Furthermore, if the latest government projections do not foresee the achievement of a structurally balanced budget by 2015, a further adjustment of the structural primary balance-to-GDP ratio of 0.5% per year is expected until the objective of a structurally balanced budget is met. It is assumed that nominal market interest rates at ten-year maturities will converge from their present levels to 5% by 2015. The pass-through of market interest rates to the average effective interest rate on government debt then depends on the existing and expected future maturity structure of government debt and the projected future financing needs.

Scenarios and results for Spain

The baseline assumptions for Spain are summarised in the table. The macroeconomic and fiscal assumptions for 2012-15 are taken from the macroeconomic scenario published by the Spanish government on 20 July 2012 and included in the budget plan for 2013-14 adopted on 3 August 2012. This plan includes the consolidation measures adopted on 13 July 2012, including a 3 percentage point rise in VAT, and foresees further significant expenditure cuts over the horizon.

1 See also the article entitled "Analysing government debt sustainability in the euro area", Monthly Bulletin, ECB, April 2012.

2 See "The 2012 Ageing Report – Economic and budgetary projections for the 27 EU Member States (2010-2060)", European Commission and Economic Policy Committee, *European Economy*, 2/2012, May 2012.

Macroeconomic and fiscal assumptions underlying the baseline scenario

(annual percentage change/as a percentage of GDP)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Spain										
Real GDP growth	0.7	-1.5	-0.5	1.2	1.9	2.3	2.3	2.5	2.7	2.6
Potential GDP growth	-0.3	-1.4	-1.4	0.1	1.4	1.7	1.8	2.0	2.2	2.4
GDP deflator growth	1.4	0.3	1.7	1.4	1.6	1.9	1.9	1.9	1.9	1.9
Primary balance-to-GDP ratio	-6.1	-3.3	-0.6	1.3	2.0	2.7	3.2	3.3	3.3	3.2
Interest payments-to-GDP ratio	2.4	3.0	3.9	4.1	4.1	4.0	3.8	3.6	3.4	3.2
Average effective interest rate	3.8	3.8	4.2	4.4	4.4	4.4	4.3	4.3	4.2	4.1
Fiscal balance-to-GDP ratio	-8.5	-6.3	-4.5	-2.8	-2.1	-1.2	-0.5	-0.3	-0.1	0.0
Italy										
Real GDP growth	0.4	-1.2	0.5	1.0	1.2	1.0	1.2	1.4	1.6	1.9
Potential GDP growth	0.1	-0.3	0.0	0.2	0.4	0.7	1.0	1.2	1.5	1.8
GDP deflator growth	1.3	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Primary balance-to-GDP ratio	1.0	3.6	4.9	5.5	5.7	5.6	5.4	5.3	5.1	4.9
Interest payments-to-GDP ratio	4.9	5.3	5.4	5.6	5.8	5.5	5.4	5.2	5.1	4.9
Average effective interest rate	4.2	4.4	4.5	4.7	5.0	5.0	5.0	5.0	5.0	5.0
Fiscal balance-to-GDP ratio	-3.9	-1.7	-0.5	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1

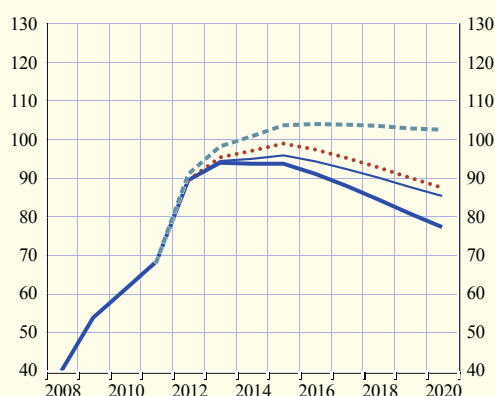
In the case of Spain, one important element to consider is that, during the summer, a European Financial Stability Facility (EFSF) financial assistance programme for the recapitalisation of financial institutions was approved. This covers capital requirements with an additional safety margin, estimated to add up to €100 billion, which is to be disbursed in several tranches over 18 months. In order to illustrate the potential impact of the EFSF financial support on government debt, and since the exact amount and timing of the disbursements are not yet known, the baseline presented here takes the most prudent assumption, namely that the full €100 billion (a) is drawn and (b) remains part of government debt over the entire horizon. The debt ratio peaks at 94% in 2015 and then declines to around 77% by 2020 (see the chart below). Without the EFSF

General government debt scenarios

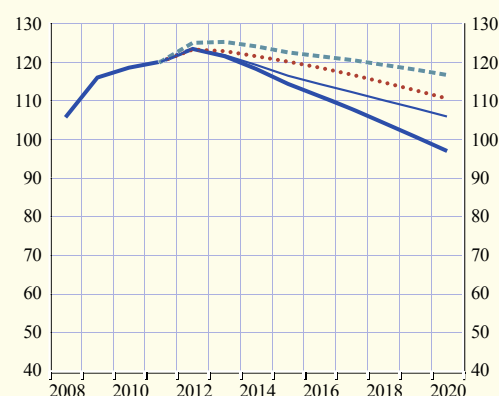
(as a percentage of GDP)

- baseline scenario
- ... adverse growth scenario
- - - consolidation shortfall scenario
- adverse interest rates scenario

a) Spain



b) Italy



Sources: ECB staff calculations and official government plans (Spain: budget plan for 2013-14, Italy: 2012 stability programme update).

assistance being included in government debt, the debt-to-GDP ratio would peak at 85% in 2015 and then fall to 70% by 2020. Given that the amount ultimately drawn by the Spanish government is not yet known, the exact path would be between these extremes. The inclusion of the additional €100 billion in government debt pushes the debt-to-GDP ratio upwards, but does not adversely affect debt dynamics. This is because the interest rate to be paid by the government on the loan is likely to be relatively low (based on EFSF funding costs) and can be expected to be offset by the interest/dividend income that the government will receive from the banks concerned.³ It is clear that the debt profile would be even lower if the government managed to sell some of its investments by 2020.

Alternative, more adverse scenarios are built on top of the baseline.

- First, an adverse growth scenario is considered. In this scenario, actual and potential real GDP growth rates are assumed to be 1 percentage point lower per year than in the baseline between 2013 and 2015. In this scenario, GDP grows by -1.5% in 2013, 0.2% in 2014 and 0.9% in 2015. It is assumed that this GDP shock is permanent and (via the operation of automatic stabilisers) gives rise to higher (structural) deficits over the horizon considered. Under this scenario, the debt-to-GDP ratio peaks at 99% in 2015 and declines to 88% by 2020.
- Second, a consolidation shortfall scenario is considered under which the government only manages to deliver half of the structural adjustment committed to in 2012-13 and the structural (primary) balance-to-GDP ratio remains correspondingly higher over the entire horizon. Under this scenario, the debt-to-GDP ratio peaks at 104% in 2016 and then edges down to 103% by 2020.
- Third, an adverse interest rates scenario is considered under which, from 2013 onwards, market interest rates (at all maturities) are 200 basis points higher than in the baseline. Under this scenario, the debt-to-GDP ratio peaks at 96% in 2015 and then declines to 85% by 2020.

Scenarios and results for Italy

The baseline assumptions for Italy are also summarised in the table. The macroeconomic and fiscal assumptions for 2012-15 are taken from the latest update of the Italian stability programme (April 2012). This update incorporates the fiscal consolidation packages adopted by the Italian government and therefore foresees a strong fiscal adjustment effort over the period 2012-2014.⁴ Accordingly, a nominal balanced budget is reached in 2014, stabilising around that level from 2015 onwards.

The baseline simulation indicates that, if Italy fully achieves the targets set out in its stability programme update, the government debt-to-GDP ratio is expected to peak at 123% of GDP in 2012, thereafter declining to below 100% by 2020 (see the chart).

³ In this exercise, a working assumption of a 3% interest rate on this loan has been made, and it has been assumed that property income receivable (by the government from the banks) is equal to property income payable (from the government to the EFSF).

⁴ The structural surplus, which is set at 0.4% of GDP in 2015, in line with the Italian stability programme update, is assumed to gradually decline towards zero by 2020.

Again, more adverse scenarios for GDP growth, fiscal consolidation and interest rates around this baseline are considered.

- First, under the adverse growth scenario, actual and potential real GDP growth are assumed to be 1 percentage point lower per year than in the baseline for 2013, 2014 and 2015. This scenario is associated with the debt ratio declining to around 111% of GDP at the end of the projection horizon.
- Second, a consolidation shortfall scenario is considered whereby only half of the structural adjustment pledged by the government over the period 2012-15 is delivered. Under this scenario, the debt-to-GDP ratio peaks at 125% in 2013 and then declines to around 117% by 2020. Such a consolidation shortfall would merely allow the debt ratio to be stabilised at current levels and provide an insufficient buffer against adverse macroeconomic developments.
- Finally, an adverse interest rates scenario is considered in which market interest rates on government debt are 200 basis points higher than in the baseline. Under this scenario, the debt-to-GDP ratio declines to around 106% by 2020.

Concluding remarks

Overall, under all the scenarios presented in this box, the debt-to-GDP ratio would be sustainable and fall at some point in both Spain and Italy. However, such scenarios should not be interpreted as forecasts. More generally, the following points should be highlighted in relation to the analysis.

First, in this exercise, a key driver of the results is that, in the baseline and in all scenarios except the consolidation shortfall scenario, it is assumed that the governments concerned will achieve structurally balanced budgets in the medium term, as prescribed by the Stability and Growth Pact. This assumption is key to ensuring that the debt-to-GDP ratio returns to a downward trajectory when the output gap closes. This underlines the importance of governments living up to their commitments under the EU fiscal governance framework and delivering the required progress towards structural balance (and corresponding primary surpluses). Failing to achieve this target will immediately give rise to substantial risks for debt sustainability.

Second, fiscal adjustment and the achievement of adequate primary surpluses are themselves facilitated by complementary measures fostering potential output growth. Governments can indeed influence long-term growth prospects by carrying out growth-enhancing structural reforms. Such reforms may have more positive effects on real GDP growth than assumed in the baseline, thereby improving the outlook for debt sustainability further.