Box 6

THE ROLE OF FISCAL MULTIPLIERS IN THE CURRENT CONSOLIDATION DEBATE

Since the start of the sovereign debt crisis, several EU Member States have adopted a series of extensive consolidation measures to restore fiscal sustainability and to preserve sovereign creditworthiness. At the same time, forecasts for economic activity have been repeatedly revised downwards for some countries. Some argue that the growth shortfalls can mainly be attributed to larger than standard short-term fiscal multipliers (i.e. the impact of discretionary fiscal policy measures on output). An extreme view is that multipliers may currently be so large that fiscal consolidation would be self-defeating, at least in the shorter run.

This debate has been further stimulated by the IMF's October 2012 "World Economic Outlook (WEO)" report[1] suggesting that the short-term fiscal multipliers used to generate growth forecasts for the crisis years 2010-11 were systematically underestimated (with the actual multiplier possibly standing at 1.7 instead of the assumed value of 0.5 in the IMF's projections). On the other hand, the European Commission (EC), in its autumn 2012 economic forecast report,[2] cautions against using past forecast errors as indirect evidence of the true size of the fiscal consolidation multiplier.[3] Focusing solely on the euro area, the EC shows that the correlation between growth forecast errors and changes in the fiscal stance breaks down when also considering increases in sovereign bond yields. Accounting for this factor, the evidence is consistent with short-term multipliers of below 1, which has so far been considered standard in the empirical literature.

The EC report also refers to simulation results across various institutions' structural models to address the question of whether short-term multipliers are larger during crises compared to normal times. Based on its QUEST model, the EC finds that during normal times, the short-term multiplier of a balanced-composition, permanent consolidation shock for the EU aggregate is around 0.4. It can rise to 0.5-0.7 during crisis times, for example, in an environment of global fiscal retrenchment and with nominal interest rates being constrained by the zero lower bound.

This box complements the debate and argues that the focus on short-term multipliers is too narrow. While the short-term effects of consolidation need to be taken into account, what is most important is the contribution of consolidation to long-term fiscal sustainability. Excessive focus on the short term could lead to a repeat of past policy errors, with debt ratios failing to stabilise quickly enough and adjustment processes being more protracted and difficult than necessary.

1 See the link at http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf
2 See Box 1.5 entitled "Forecast errors and multiplier uncertainty" in the European Commission's *European Economy,* No 7/2012.
3 Moreover, past forecast errors are also associated with other factors, such as higher than expected oil prices and the amount of consolidation measures embedded in the baseline fiscal forecast.

Fiscal multipliers based on the ECB's New Area-Wide Model

In the following section, the ECB's New Area-Wide Model is used to examine, by means of model-based simulations, the size of the short and long-run effects of fiscal consolidation on real GDP under alternative assumptions.[4] These simulations are not intended to give an exact quantitative account of actual fiscal consolidation measures that have been, or that are likely to be implemented in individual euro area countries, but to identify key factors that matter for their effects in the short and long run. In doing so, the simulations consider the euro area as a whole.

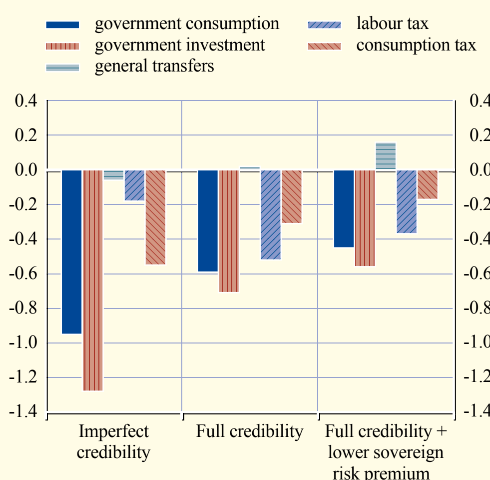
Short-term fiscal multipliers

Chart A presents the short-term GDP multipliers for several expenditure and revenue-based fiscal instruments. The simulated consolidation scenarios refer to a permanent change in the respective fiscal instrument, so as to achieve a gradual reduction of the government debt-to-GDP ratio from 90% to 60% in line with the Treaty reference value.[5] The graph shows that fiscal consolidation has, in general, a negative effect on GDP in the short run, with the size of short-term multipliers varying quite substantially across the different fiscal instruments. The negative effect is most pronounced in the case of imperfect credibility, for example, if markets initially disbelieve the government's commitment to fully implement the announced consolidation measures. Yet, even in this case, negative multipliers larger than 1 are the exception, confined to cuts in productive expenditure (government investment). In addition, several aspects may serve to reduce the short-term multipliers.

First, short-run multipliers are much smaller in the case of full credibility, for example, if markets are convinced that the announced consolidation measures will be fully implemented and lasting (see the second scenario in Chart A). Full credibility creates budgetary room after ten years, which in the simulations is assumed to be used to reduce the labour tax rate. Markets' anticipation of future tax cuts results in favourable supply-side effects, including an increase in labour supply even in the short run, which in turn mitigates the negative short-term impact of consolidation.

Second, short-run multipliers tend to be smaller if the medium-term reduction in the government debt-to-GDP ratio is associated with a decline in the sovereign risk premium (see the third scenario in Chart 1). This scenario

Chart A Short-run GDP multipliers



Note: NAWM-based simulations. The short-run multipliers correspond to the average real GDP effects over the first two years of the fiscal consolidation.

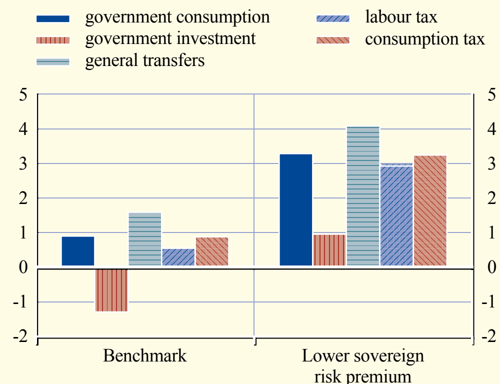
4 The analysis is based on an extended version of the NAWM described in G. Coenen, P. McAdam and R. Straub's, "Tax reform and labour-market performance in the euro area: a simulation-based analysis using the New Area-Wide Model", *Journal of Economic Dynamics and Control*, No 32(8), pp. 2543-2583, 2008.

5 The permanent fiscal shock amounts to 1% of the initial steady state GDP. The budgetary room created by the consolidation is used exclusively to reduce government debt within the first ten years. Thereafter, labour income taxes are allowed to adjust in response to deviations of the government deficit from its long-run target (which is in line with a 60% debt-to-GDP ratio).

assumes a reduction in the risk premium of 30 basis points, broadly in line with earlier findings in the literature.[6] This lowers the debt servicing costs of the government and reduces the financing costs of the private sector, thereby stimulating private investment.

Third, short-run multipliers depend on the composition of consolidation. Tax increases and reductions in transfers are found to be associated with smaller short-run multipliers than cuts in either government consumption or government investment (the latter associated with the largest decline in real GDP).

Chart B Long-run GDP multipliers



Note: NAWM-based simulations. The long-run multipliers refer to the percentage deviation of the new steady state real GDP level that is realised when the transitionary effects from the adjustment processes have unwound relative to the initial steady state GDP level. In the conducted simulations, these adjustment processes take more than ten years.

The size of the short-run multiplier is also sensitive to structural features of the economy, such as the share of liquidity or credit-constrained households. A higher share of constrained households, all other things being equal, results in slightly larger multipliers. The reason is that these households are less able to smooth out consumption over time and therefore react to consolidation, thereby affecting their current disposable income with larger cutbacks in their consumption than households that are able to borrow or dissave.

Long-term fiscal multipliers

Over the longer run, fiscal consolidation has sizeable benefits, not only in terms of fiscal sustainability but also when measured in terms of GDP (see Chart B). The size of the long-run multiplier is independent of the degree of credibility. In the benchmark simulations with a constant risk premium, consolidation is associated with positive effects on real GDP in the long run for all fiscal instruments (except for government investment), reflecting the reduction in the labour tax rate in response to the materialising budgetary room. The non-productive components of government spending, that is to say consumption and transfers, exhibit larger positive effects on real GDP than the tax instruments. These results are in line with the available empirical evidence which points to a higher degree of success for expenditure-based fiscal consolidations.[7]

If, in addition, it is assumed that the fiscal consolidation efforts lead to a decline in the sovereign risk premium, the long-run benefits of consolidation become considerably larger than in the benchmark simulations. The reduction in government financing costs, due to lower long-run nominal interest rates, improves the budgetary situation of the public sector, thereby increasing the room for reductions in the labour tax rate. At the same time, lower financing costs in the private sector result in a higher economy-wide capital stock.

6 See, for example, T. Laubach, "New evidence on the interest rate effects of budget deficits and debt", *Journal of the European Economic Association*, No 7(4), pp. 1-28, 2009.

7 See Alesina, A., C. Favero and F. Giavazzi (2012), "The output effect of fiscal consolidations", *NBER Working Papers*, No 18336; Alesina A. and S. Ardagna (2012), "The design of fiscal adjustments", *NBER Working Papers*, No 18423.

Qualifications on the effects of fiscal consolidation

Given the current debate, while the size of the short-run fiscal multipliers is important, it provides only a narrow view on fiscal sustainability, as well as on fiscal analysis and surveillance. In the light of the discussion above, a number of qualifications should be considered when assessing the fiscal multiplier and the effects of fiscal consolidation:

(i) The size of the fiscal multiplier can be reduced by enhancing the credibility of the consolidation and accompanying measures

As shown above, if fiscal consolidation can be credibly communicated as part of a necessary adjustment process that would allow, for example, the future tax burden to be lowered, this would immediately boost consumers' and investors' confidence. Confidence can be further enhanced when fiscal consolidation is accompanied by structural reforms that have positive supply-side effects over the longer run.

(ii) Other factors that weigh on the short-run growth outlook

Risks to the macroeconomic outlook may arise from uncertainties surrounding not only the size of fiscal multipliers, but also the amount of fiscal consolidation embedded in the forecast baseline, and thus the possible additional consolidation. Moreover, with regard to the policy impact, the recent decline in confidence and ensuing economic deterioration, in particular, cannot be solely attributed to the impact of fiscal consolidation and, thus, be taken as evidence for higher fiscal multipliers, as some analyses have recently suggested. There have been many other factors at work (e.g. oil price and exchange rate developments) and disentangling their sometimes complex interaction – including in the present analysis – is a daunting task.

(iii) There are favourable long-run effects of fiscal consolidation on growth

While fiscal consolidation may adversely affect growth in the short term, the medium to long-term effects are favourable and more than compensate any short-term shortfall. Moreover, governments would be ill-advised to bias consolidation against spending measures because – even though they may have a larger negative, short-term impact than revenue measures – they tend to be most beneficial in terms of medium to long-term growth prospects. Overall, also given the very large size of the public sector in many countries, the bulk of fiscal adjustment should be borne on the expenditure side, while avoiding cuts in productive government spending. Moreover, the additional budgetary room created by the consolidation efforts may be geared in the medium term towards lowering the taxes that are most harmful to growth (e.g. labour taxes).

Conclusions

The current debate appears to be too narrowly focused on the size of the short-term fiscal multiplier. Well-designed consolidation leads to a permanent improvement in the structural balance, while the deterioration in growth, if any, is only temporary. Fiscal consolidation has a favourable impact on the path of the debt-to-GDP ratio, which, at present, is more important than ever to restore trust in fiscal sustainability in the euro area and beyond.