BOX G: BATTLE OF THE MULTIPLIER BOXES

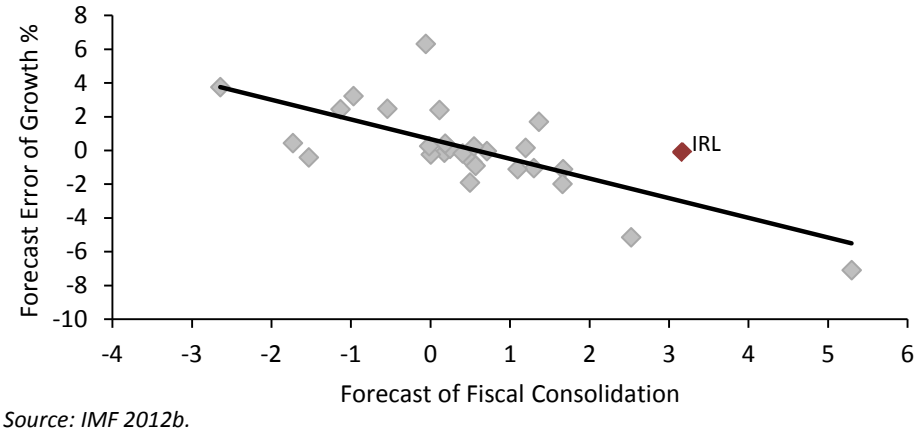
A box in the IMF's World Economic Outlook (IMF, 2012b) titled "Are we Underestimating Short-Term Fiscal Multipliers?" has led to intense debate over the size of fiscal multipliers during the crisis (see also Blanchard and Leigh, 2013). The box was followed by boxes from the European Commission (EC, 2012a) and the ECB (ECB, 2012b) questioning the IMF findings. This box briefly summarizes the debate with particular attention to potential lessons for Irish fiscal policy.

The core of the IMF's analysis is a regression of the size of growth forecasts' errors for the period 2010-2011 on the size of the planned consolidations for the same period. The growth forecasts were made in April 2010 and the consolidations are measured as the planned change in the structural primary balance as a share of potential GDP. The basic regression specification is:

$$\text{forecast error of growth} = \alpha + \beta \text{ forecast of fiscal consolidation} + \varepsilon.$$

A significant negative estimated value of β is taken as evidence that the size of fiscal multipliers was underestimated when making the growth forecasts. Essentially, all else equal, with a general underestimation of multipliers, larger planned adjustments are associated with larger overestimations of growth. With the base specification, the estimated value of β is statistically significant and close to 1 in absolute value (see Figure G1). The absolute value of β is taken as an estimate of the underestimation of the size of the overall deficit multiplier. The IMF finds that this result is robust with respect to the inclusion of a battery of controls and to the exclusion of outliers. It also finds that similar results hold for other forecasters, although the size of the estimated β is largest for the IMF's own forecasts (and smallest for forecasts made by the OECD).

FIGURE G1: RELATIONSHIP BETWEEN PLANNED DISCRETIONARY ADJUSTMENTS AND GROWTH FORECAST ERROR



Source: IMF 2012b.

Note: Vertical axis displays WEO forecast error for real GDP growth in 2010 and 2011; horizontal axis displays WEO forecast of change in structural fiscal balance to GDP Ratio in 2010 and 2011.

Although the assumed average value of the multiplier used when making the forecasts is 0.5, the IMF estimates that the true multiplier is in the range of 0.9 to 1.7, with the range determined by forecast source and specification. Such underestimation of the multiplier would have obvious implications for the nature of the trade off between supporting aggregate demand and ensuring debt sustainability/creditworthiness, and thus for the identification of the appropriate fiscal stance.

Although the IMF researchers conducted a number of robustness tests, subsequent analyses by the European Commission and the ECB have questioned the IMF results.

While accepting that multipliers are likely to be higher in a financial crisis, the European Commission has queried the applicability of the IMF's findings to the current Euro Area crisis (EC, 2012a). The Commission limits its sample to Euro Area countries, which it argues provides a more valid comparison as all countries are operating under the same exchange rate regime. For the full sample of EU countries similar results to those of the IMF are obtained.

Two caveats are emphasised, however, by the Commission study. First, the sample includes both countries engaged in temporary fiscal stimulus and countries engaged in permanent fiscal adjustment. Credible permanent adjustments are assumed to be associated with smaller multipliers, as households and businesses come to expect lower taxes in the future. Once the sample is limited to this latter group the negative relationship between forecast errors and the size of planned fiscal adjustments disappears. Second, the negative relationship in the full sample of Euro Area countries is not robust with respect to inclusion of a control for the increase in bond yields. To the extent that countries with the most serious debt problems were forced to pursue the largest adjustments and faced the most negative investor reaction over the period, this could lead to bias in the estimated relationship between the size of growth disappointments and the size of the adjustments. In essence, the concern is that the larger growth disappointments for countries engaging in the largest adjustments was not due to an underestimation of the multiplier, but rather to these countries being more negatively affected by a contemporaneous fall in investor confidence. It is important to note that the IMF study found the negative relationship to be robust to the inclusion of controls for starting debt levels and changes in CDS spreads. The differing results show how sensitive results can be to sample composition and the choice of control variables in small cross-country samples.

In its contribution, the ECB argues that the debate is too narrowly focused on the short-term fiscal multiplier (ECB, 2012b). Unlike the IMF and EC, it does not focus on regressions of the growth disappointment on the size of planned adjustment. Instead, it simulates both the short- and long-run effects of adjustment measures using its New Area-Wide Model. The ECB study makes three points: (i) the short-term negative effects of adjustment are smaller if the adjustment is credible, with the offsetting effects coming through reduced bond yields and expectations of positive supply-side effects; (ii) like the IMF and EC, it emphasises that multiple factors are at work at the time of adjustment making it difficult to credibly identify the specific effects of the adjustment measures; and (iii) while adjustment may harm growth

in the short term, this is more than compensated for positive effects on longer-term growth, especially where expenditure reductions make room for longer-term tax cuts that have positive supply side effects.

What are the implications of this debate for the potential underestimation of Irish fiscal multipliers during the crisis? In the IMF's analysis, an overestimation of growth was not observed for Ireland for this period. However, as documented in previous *Fiscal Assessment Reports*, there has been a pattern of downgrades to Irish growth forecasts for a given year as the forecast horizon shortened. This pattern is reproduced for 2012 in Figure G2. While an underestimation of the fiscal multipliers is certainly not the only possible explanation, the downgrade of forecasts is consistent with a pattern of underestimating the growth retarding effects of the significant consolidation measures taken in these years.

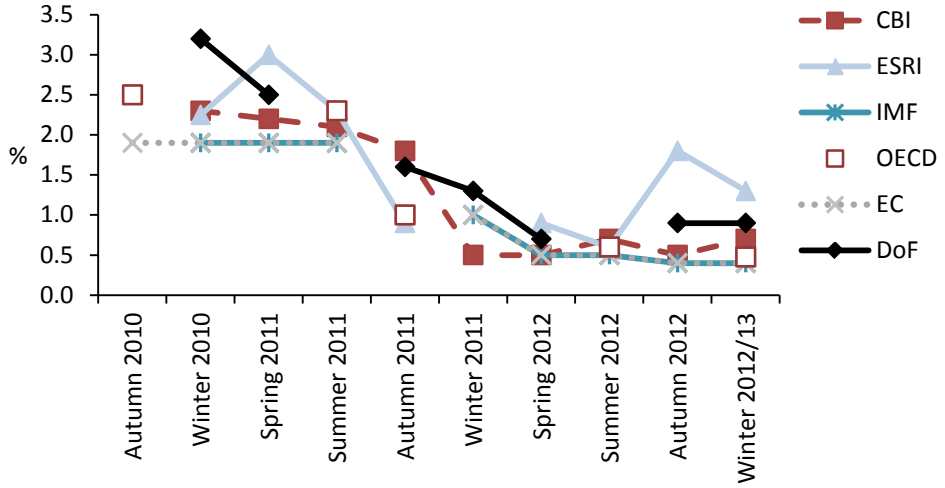
It is important to note, however, that the Ireland specialists at the IMF do not believe that multipliers have been underestimated in the Irish case. In the wake of the controversy following the initial IMF box, Ajai Chopra, head of the IMF negotiating team for Ireland, noted in a statement that:[93]

> "In the current discussion of the impact of fiscal adjustment on growth, it is important to note that no single fiscal multiplier is applicable to all countries and circumstances. And although there is uncertainty around any estimate of multipliers, there is no compelling evidence that a higher multiplier was at work in Ireland than the one assumed under the program. With overburdened bank, household and SME balance sheets, and weak growth in trading partners, a number of factors besides fiscal consolidation have been a drag on growth in Ireland."

As discussed in Appendix E the recent theoretical and empirical literature on fiscal multipliers underlines the sensitivity of multipliers to economic conditions and policy regimes. While multipliers tend to be higher in recessions – particularly recessions associated with financial crises – they tend to be lower in countries with high debt to GDP ratios and countries facing bond market stress. These factors pull in different directions in the Irish case. On balance, the Council judges a central estimate of the overall deficit multiplier for Ireland of 0.5 to be broadly appropriate given the openness of the economy. However, it also recognised the significant uncertainty surrounding this estimate, and that the true figure is likely to change over time. Based on the Council's Fiscal Feedbacks Model, a sensitivity analysis is provided to gauge the implications of alternative multiplier values on medium-term fiscal projections (see Figure 4.6).

[93] The full statement is available at http://www.irisheconomy.ie/index.php/2012/10/22/ajai-chopra-on-the-fiscal-multiplier-in-ireland/

FIGURE G2: EVOLUTION OF REAL GDP GROWTH FORECASTS FOR 2012



4.4 COMPLEMENTARY ACTIONS TO SUPPORT CREDITWORTHINESS

Although the State's creditworthiness has steadily improved since mid-2011 as fiscal targets have been achieved, unavoidable uncertainties around growth mean that there is no assurance that the trend improvement in the public finances will continue. As in previous *Fiscal Assessment Reports*, this chapter has argued for aiming at a margin of safety to increase confidence that all fiscal targets are met. This, in turn, should enhance the confidence of investors that they will be repaid with funds raised from either market or official sources, supporting a virtuous circle of rising confidence, growth and fiscal stabilisation. A limited margin of safety is now in place – although creditworthiness remains fragile. We conclude by briefly noting two potentially complementary elements of a strategy to robustly restore creditworthiness: post-programme precautionary funding arrangements; and more supportive terms on official debt.

4.4.1 POST-PROGRAMME PRECAUTIONARY FUNDING/BOND MARKET SUPPORT

The fall in Ireland's bond yields reflects, in part, a market view that official funding to cover ongoing deficits and rollovers of maturing debt would be available without a forced restructuring of debt owed to the private sector. While there are attractions to a clean exit from the programme, this confidence could be reinforced by explicit post-programme precautionary funding arrangements and/or through ECB commitments to support secondary market bond yields through its Outright Monetary Transactions (OMT) programme (ECB, 2012a). A precautionary programme from the European Stability Mechanism (ESM) is one of the requirements for access to the OMT: