Box A: Standard Debt Ratios and a 45 Per Cent Target

This Box examines recent developments in standard denominators used to understand debt sustainability. It examines recent debt levels in the context of a variety of methodological changes to how GNP and GDP are measured. In this context, the government's new 45 per cent debt ratio target, as set out in *SPU 2017*, is discussed. Correcting for the recent addition of Research and Development (R&D) investment to GDP/GNP, and the 2015 balance sheet reclassification, debt-to-GDP ratios – and, by extension, the 45 per cent target – look lower than would have been case before these revisions, with little or no actual improvement in the fiscal situation.

Evolving Denominators

The standard base used to assess debt sustainability internationally is GDP. This has traditionally been well understood as a poor measure for Ireland given the unusual gap between GDP and GNP arising from a relatively high level of multinational activity and subsequent repatriation of profits. For most countries, there is little difference, but in Ireland GNP has tended to be some 85 per cent of GDP due to the outward flows of profits.

As noted in IFAC (2012b), debt sustainability judgements are coloured by whether it is believed GDP or GNP provides the most appropriate measure of Ireland's fiscal capacity. Recognising the limitations of both measures, the Council at the time developed a "Hybrid" measure that put differential weight on the fiscal capacity of a euro of GNP and a euro of the GDP-GNP excess.[1]

Recent developments, both methodological and economic, have led to substantial changes to how both GDP and GNP are calculated. In 2015, a level shift was observed, as both measures were boosted by a dramatic rise in net exports that resulted from corporate restructuring (Box A, IFAC, 2016b). In 2014, the adoption of new international standards for national accounting saw both measures boosted by the recognition of investment in R&D (Casey, 2014). While the former level shift was more clearly an artificial boost to measured GDP/GNP levels, the inclusion of R&D asset flows was arguably a sensible recognition of previously unrecognised activities that had some value added. However, given that R&D activities do not contribute very strongly to the tax base, and that, in the Irish context, these activities are exceptionally large by international standards, and predominantly conducted by foreign-owned multinationals, there is a good case for disregarding them when assessing debt sustainability. Both innovations have the effect of making debt ratios appear less onerous in the context of the historical understanding of relative debt burdens.

Implications for Debt Burden Assessments

To understand the implications of the recent changes to denominators, Figure A.1 traces through their impact on the 45 per cent target (with 2015 as the base year for comparison). The SPU notes that this target is to reflect "the still-high levels of public debt and the need to build up a safety buffer", and that it is to be achieved "by the mid-part of the next decade". The first bar shows the Government's new 45 per cent debt-to-GDP target as noted in *SPU 2017*.

Using GNP as a denominator rather than GDP, the 45 per cent target would be equivalent to a 57 per cent ratio (using 2015 GNP). Assuming that nominal GNP growth in 2015 was at the Net National Product (NNP) growth rate of 6½ per cent rather than the 24 per cent outturn published, the debt target rises to an equivalent ratio of 66 per cent.

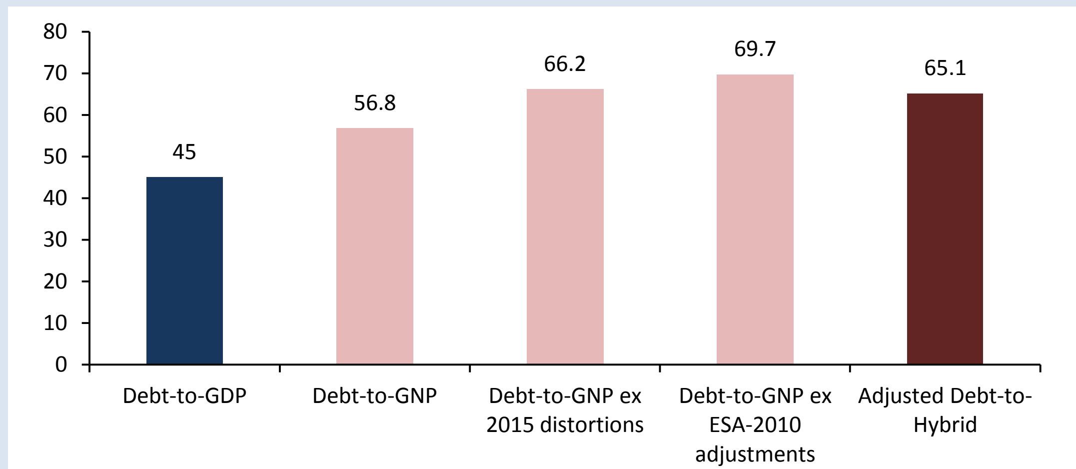
If one was to exclude the European System of National and Regional Accounts (ESA) 2010 innovations such as newly added R&D investment activities, the target would rise to an equivalent ratio of 70 per cent. Since GNP places zero weight on the revenue potential of the gap

[1] IFAC (2012b) notes that taking either of the extremes of GDP or GNP is problematic. GDP is problematic as a measure of fiscal capacity because a euro of the excess of GDP over GNP (which is dominated by multinational profits) is likely to provide less revenue capacity than a euro of GNP. On the other hand, going to the other extreme of using just GNP puts zero weight on the revenue potential of the excess component.

between it and GDP, the Council considers a Hybrid measure as a more appropriate measure of fiscal capacity. One way to construct this is to assume that GNP remained at the relatively stable historical level of 85 per cent of GDP for 2015. On that basis, a Hybrid measure would indicate that the 45 per cent debt ratio target would be equivalent to a government debt target of 65 per cent, when the effect of methodological issues is taken into account and when using a hybrid measure that more appropriately captures fiscal capacity for Ireland.

Figure A.1: Irish Debt Ratios Mask Sustainability Questions

General Government Gross Debt Ratio Target with Different Denominators, 2015 (% Denominator)



Sources: CSO; and internal IFAC calculations.
Note: Adjustment for 2015 distortions shown is based on the CSO's stated growth in NNP of 6.4 per cent applied to the 2014 nominal GNP level. R&D investment was capitalised as a part of ESA-2010's methodological changes and is excluded along with other smaller ESA-2010 adjustments in the second last bar based on their 2014 impact so as to facilitate historical comparisons. The final bar uses a hybrid measure of output and assumes that GNP is equivalent to 0.85 times GDP (its historical ratio over 1995-2014). The Hybrid is an intermediate measure of fiscal capacity between GDP and GNP. It puts differential weight on GNP and the excess of GDP over GNP, defined as: Hybrid = GNP + 0.4(GDP – GNP). For more detail, see IFAC (2012b).