

**Box 3.1: Cyclically Adjusted Balances and the Output Gap**

The fiscal balance can be divided into a cyclical and a structural component. The change in the structural balance is often used internationally to assess the stance of fiscal policy. A variety of approaches can be used to estimate the cyclically-adjusted budget balance.

The Department of Finance uses a harmonised methodology (developed by the European Commission) to estimate the cyclically adjusted balance. This involves using a production function approach based on estimates of the potential output of the economy, given the amounts of labour and capital available as well as estimates for total factor productivity. The difference between actual and potential output is termed the output gap. The budgetary impact of the economy deviating from its trend is then calculated assuming the sensitivity of the budget balance to changes in the cycle is 0.4. The cyclical budget component is then subtracted from the unadjusted balance to determine the structural balance.<sup>15</sup> The SPU cyclically adjusted figures are provided in Table 3.1.A and show a sizable, albeit declining, structural deficit over the period.

**Table 3.1.A: Structural and Cyclical Budget Estimates in the SPU**

<b>% of GDP</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
General Government Deficit	32.4	10.0	8.6	7.2	4.7	2.8
Underlying Deficit <sup>16</sup>	12.1	10.0	8.6	7.2	4.7	2.8
Potential GDP Growth	-1.4	-1.2	-0.6	0.5	1.1	1.7
Output Gap	-6.1	-4.2	-1.2	1.2	3.1	4.5
Cyclical Component	-2.4	-1.7	-0.5	0.5	1.2	1.8
Structural Budget Deficit	10.0	8.3	8.1	7.7	5.9	4.6

Source: Stability Programme Update.

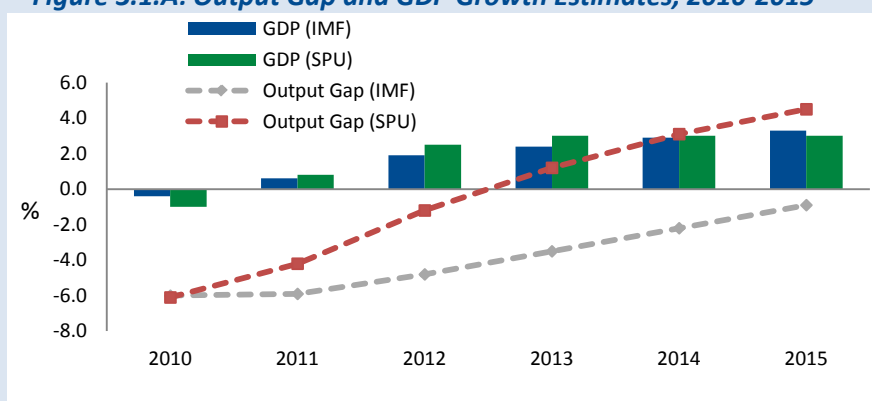
<sup>15</sup> For a more detailed description of the methodology used, see Pre-Budget Outlook, November 2009, Annex 3.

<sup>16</sup> The General Government Deficit in 2010 was estimated at 32.4 per cent of GDP, which includes approximately €31 billion issued in Promissory Notes to recapitalise certain financial institutions. When these banking related measures and associated interest costs are excluded, the underlying estimate for the General Government deficit was €18.5 billion, or 12 per cent of GDP. These ratios have since changed following the publication of fourth quarter National Accounts Data, which resulted in nominal GDP being revised upwards from €154 billion to €156 billion. As a result the General Government Balance, improved to -32 per cent of GDP in 2010.

There are well recognised problems associated with measuring cyclically adjusted balances, particularly for a small open economy undergoing significant structural change, mainly due to difficulties surrounding potential output estimates. The approach adopted in the SPU envisages a potential annual average growth rate for Ireland of 0.7 per cent from 2012 to 2015. Given the forecast for actual growth, this would suggest, in a mechanical sense, significant overheating by 2015, with a positive output gap of 4.5 per cent of potential output. As economies generally converge to trend over a few years, there seems to be an inconsistency between the path of actual growth in the SPU and the much weaker numbers assumed for potential output. It is noteworthy that the Department of Finance does not consider these results to be plausible under the current conditions of large-scale structural change.<sup>17</sup>

The problems associated with estimating potential output (and the structural balance) are also evident from alternative estimates of the output gap. In Figure 3.1.A, the projected paths of actual output (real GDP) and the output gap are presented for the SPU projections as well as for the latest IMF forecasts. Since the forecast paths for actual output are quite similar, the differences in the output gap are due to very different projected paths for potential output. Despite this, the approaches of the IMF and the Department of Finance both project sizable structural deficits in 2015, ranging from 4.6 per cent in the case of the SPU to 3.4 per cent in the case of the IMF.

**Figure 3.1.A: Output Gap and GDP Growth Estimates, 2010-2015<sup>18</sup>**



<sup>17</sup>On page 47 of the SPU 2011, it was stated that: "...issues arising out of the current methodological framework have resulted in substantially reduced potential output figures for Ireland, with the knock on effect that the output gap for 2015 is positive at around 4½ per cent of GDP. Given that this figure would suggest a rapidly overheating economy with resulting inflationary pressures; this result is not viewed as plausible."

<sup>18</sup>The IMF figures for the output gap are taken from the IMF Country Report No. 11/276 which was published in September 2011.