

Box K: The Uncertainty in assessing Compliance with the Fiscal Rules

This Box attempts to illustrate the uncertainty in assessing compliance with the fiscal rules. A central issue when assessing compliance with the fiscal rules is that it relies on the estimation of unobservables, such as potential output and the output gap. Estimating these unobservables is inherently uncertain and no estimation technique can accurately capture the true position of these unobservables at any point in time. It follows that assessing compliance with the fiscal rules based on these unobservables is surrounded by some uncertainty regarding the position of the economy in the cycle.

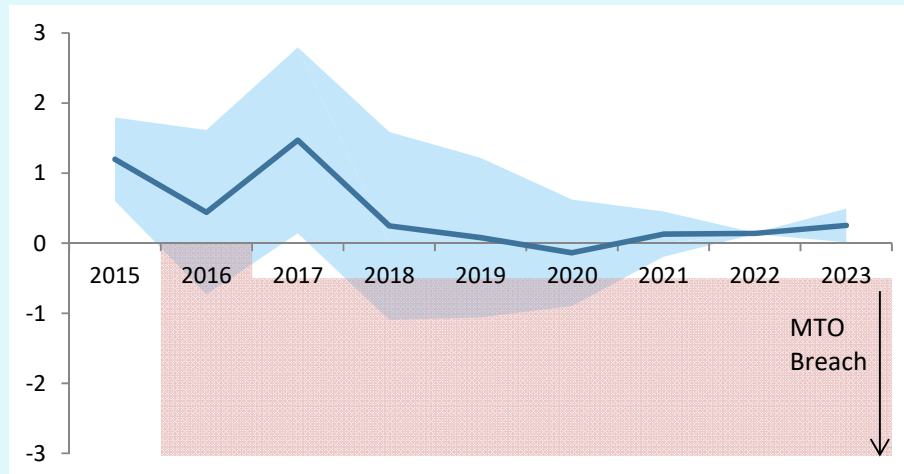
One advantage of the Council’s new principles-based approach to the budgetary rule is that the framework is based on the Department’s suite of GDP-based estimates of potential output. As the framework is based on a suite of models, the various estimates can be used to illustrate, to some degree, the uncertainty in the fiscal rules. By taking the maximum and the minimum of the estimates of potential output and the output gap, one can show a range of estimates of the structural balance and the Expenditure Benchmark. This is not possible with the potential output and output gap estimates produced using the CAM, as the estimates produced using the CAM are simply point estimates from a single model and so it is not possible to display a range of possible estimates.

Structural Balance Range

The Department’s GDP-based estimate of the output gap is the mid-point of its two GDP-based estimates. Using these two estimates of the output gap it is possible to create a range of structural balance estimates. Figure K.1 shows the range of structural balance estimates using these output gap estimates. While the structural balance estimate using the mid-point of the output gap estimates shows that the MTO is met in all years, the range clearly overlaps with an MTO breach in some years. At its widest, the range of structural balance estimates is 2.7 percentage points in 2018, illustrating a considerable degree of uncertainty about a point estimate for the structural balance in that year.

Figure K.1: Structural balance range

Per Cent of GDP



Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: Blue shaded region contains the range of structural balance estimates using the Department’s minimum and maximum of their alternative GDP-based output gap estimates. Blue line represents the structural balance estimate using the mid-point of the Department’s alternative GDP-based estimates.

Expenditure Benchmark Range

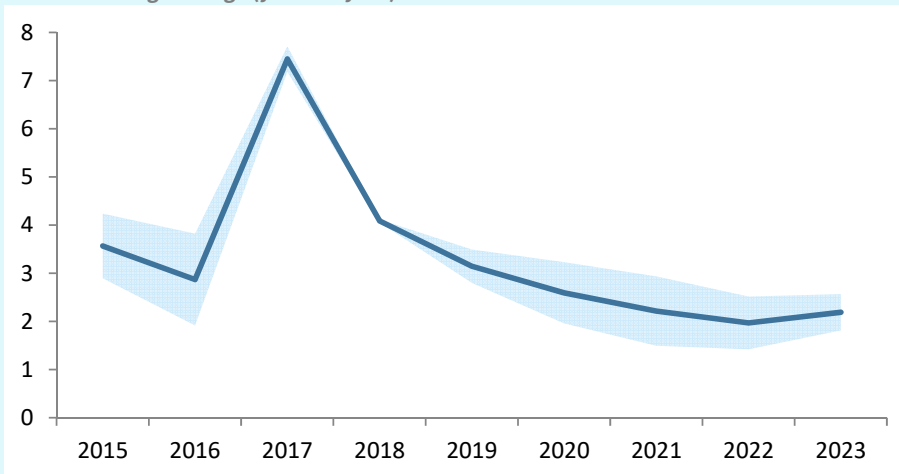
The reference rate for the Expenditure Benchmark is a 10-year average of potential output growth rates. Figure K.2 shows the range of potential output growth rates using the

Department's GDP-based estimates. The range of potential output growth rates, for the most part, lies between 4 per cent and 2 per cent growth, with potential output growth spiking in 2017. The range of potential output growth rates is at its widest in 2016, at 1.9 percentage points, while the range is at its narrowest in 2018 at approximately 0.1 percentage points. Again, there is considerable variability in the range of potential output growth rate estimates.

Using the 10-year average of the potential output growth rates reduces the variability in the reference rate for the Expenditure Benchmark, and ensures that the reference rate is not overly sensitive to individual point estimates of potential growth. However, one caveat of this is that the revisions to potential output growth estimates occur for the entire time horizon and usually in the same direction and so do not just affect individual point estimates of potential output growth (Barnes & Casey, 2019).

Figure K.2: Range of potential output growth

Real Percentage change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: Blue shaded region contains the range of potential output growth estimates using the Department's minimum and maximum of their GDP-based output gap estimates. Blue line represents the potential output estimate using the mid-point of the Department's alternative GDP-based estimates. The outlier for Potential GDP Growth for 2015 is replaced by the average of the 2014 and 2016 rates, as discussed in the June 2017 FAR (IFAC, 2017c).

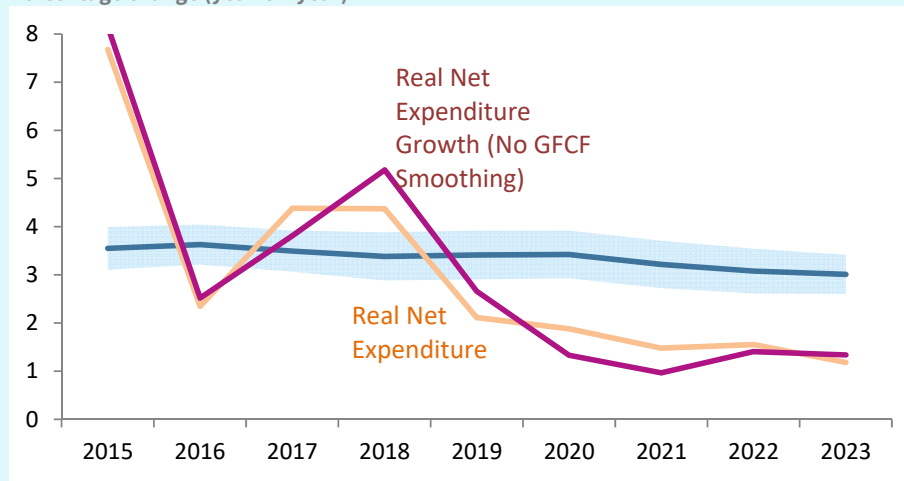
Figure K.3 shows the range for the Expenditure Benchmark limit using the Department's two GDP-based estimates of potential output. The dynamics of the range for the Expenditure Benchmark limit is considerably less erratic than that of the range for the structural balance, and is a clear indication of the power of taking the 10-year average in reducing the variability in the assessed rate. The range for the Expenditure Benchmark limit is relatively stable throughout the forecast horizon, with the range at its widest in 2019, at 1 percentage point (narrowest is 0.8 percentage points). Assessing compliance with the Expenditure Benchmark over this horizon is relatively more clear cut than assessing the structural balance, with the net expenditure growth being either completely above or below the range for the Expenditure Benchmark limit in all years.⁷⁷

The uncertainty in estimating the position of the economy in the cycle and its potential growth rate mean that, while the principles-based approach to the rules is a good guide for policy, policymaking should take a prudent approach and not rely too heavily on minimal compliance with the rules. A safety margin, in terms of compliance with the rules would be helpful for

⁷⁷ For one year, 2017, the non-GFCF smoothed net expenditure growth was marginally inside the Expenditure Benchmark range. However, this is not the assessed figure in terms of the rules.

prudent policy given the uncertainty illustrated.

Figure K.3: Expenditure benchmark range
Percentage change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: Blue shaded region shows the range of the Expenditure Benchmark limits using estimates of the minimum and maximum potential output growth rates from the Department's alternative GDP-based estimates. Blue line represents Expenditure Benchmark limit in real terms using the mid-point of the Department's alternative GDP-based potential output estimates.