Potential Output, the Output Gap and Associated Key Issues for Fiscal Policy-making in Ireland

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Séanadh

Is í an Oifig Buiséid Pharainmiteach (OBP) a d’ullmhaigh an doiciméad seo mar áis do Chomhaltaí Thithe an Oireachtais ina gcuid dualgas parlaiminteach. Ní bheartaítear é a bheith uileghabhálach ná críochnúil. Féadfaidh an OBP aon fhaisnéis atá ann a bhall as nó a leasú aon tráth gan fógra roimh ré. Níl an OBP freagrach as aon tagairtí d’aon fhaisnéis atá á cothabháil ag tríú páirtithe nó naísc chuig aon fhaisnéis den sórt sin ná as ábhar aon fhaisnéise den sórt sin. Tá baill foirne an OBP ar fáil chun ábhar na bpáipéar seo a phlé le Comhaltaí agus lena gcuid foirne ach ní féidir leo dul i mbun plé leis an móphobal nó le heagraíochtaí seachtracha.

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Glossary

**Counter-cyclical Fiscal Policy**: The implementation of Government tax and expenditure policies which dampen economic activity when there is a risk of overheating or support economic activity in a recession.

**Fiscal Rules**: Numerical limits on budgetary aggregates such as Government expenditure, revenue, deficit and debt.

**The Stability and Growth Pact (SGP)**: An agreement among the Member States of the European Union which establishes an overall institutional framework for fiscal policy-making. It aims to promote fiscal discipline and it is inclusive of numerical fiscal rules. It is made of two Arms: the Preventive and the Corrective Arm.

**Structural Budget Balance (SB)**: The Government Budget Balance (GBB) adjusted for the impact of cyclical or temporary tax receipts and expenditure, and one-off measures such as bank recapitalisations. It is used to capture the Government's underlying fiscal position.

**Medium-Term Budgetary Objective (MTO)**: It is the key fiscal anchor of the Preventive Arm of the Stability and Growth Pact. The MTO is a target level for the structural or underlying Government Budget position. It is country-specific and seeks to take into account the longer-term sustainability of the public finances. Ireland’s MTO is currently a Structural Budget Balance of -0.5% of GDP. If a Member State is not at its MTO, improvements in the SB are required on an annual basis.

**Expenditure Benchmark (EB)**: A numerical fiscal rule of the Stability and Growth Pact which limits year-on-year real growth in public expenditure to the medium-term potential growth rate of the economy.

**Potential Output/GDP**: It is an estimated equilibrium level of economic activity, which is achieved when all factors of production (i.e. capital and labour) are employed at full capacity. This level of economic activity does not generate inflationary pressures.

**Output Gap (OG)**: The OG is the difference between actual GDP and potential GDP, expressed as a percentage of potential GDP. It is used to estimate the cyclical position of an economy. If the OG is negative, this would indicate that there is slack in the economy. By contrast, the economy is assumed to be at risk of overheating if the OG is positive.

**Commonly Agreed Methodology (CAM)**: It is the agreed methodological approach used by the European Commission and Member States to estimate potential output and the output gap.
Executive Summary

The EU fiscal rules of the Stability and Growth Pact (SGP) constitute the main institutional framework shaping fiscal policy in Ireland (i.e. Government tax and expenditure decisions). The SGP, which was initially established in 1997 and has evolved significantly since then, is made of two Arms: the Corrective and the Preventive Arm. The Corrective Arm, which Ireland was subject to during the crisis period, aims to correct large fiscal imbalances (i.e. high deficit and debt), with the 3% deficit-to-GDP ratio and the 60% debt-to-GDP ratio representing the key fiscal constraints. By reducing the deficit to less than 3%, Ireland left the Corrective Arm in 2016 and moved to the Preventive Arm. The Preventive Arm has a different purpose to the Corrective Arm. As fiscal imbalances have been corrected or are not present, the focus is on promoting prudent fiscal policy and maintaining stable and sustainable public finances. The Preventive Arm is characterised by two main rules: a Balanced Budget rule (i.e. a Structural Budget Balance – the General Budget Balance adjusted for the effects of the economic cycle and one-offs – close to balance or surplus) and a Spending rule limiting annual growth in Government Expenditure (i.e. the Expenditure Benchmark).

This paper analyses the main economic concepts that underpin the calculation of the Structural Budget Balance (SB) and the Expenditure Benchmark (EB); namely, Potential Output and the Output Gap. On the back of this analysis, this work also addresses key issues for fiscal policy in Ireland. The Output Gap (OG) not only plays a central role in the assessment of the sustainability of the public finances (i.e. as mentioned being used to calculate the SB; namely, the underlying budgetary position), but it is also important for the general management of the economy. The OG is the key indicator used by policy makers to identify the extent to which an economy is at risk of overheating or if it is underperforming compared to its potential capacity (i.e. an assessment of the cyclical position of the economy).

A good understanding of the cyclical position of the economy is necessary for the conduct of counter-cyclical fiscal policy, which the Government has identified as a priority in the Stability Programme Update (SPU) 2018. Implementing counter-cyclical fiscal policies means curbing economic activity by increasing taxes and/or cutting expenditure when an economy is above “normal”/potential capacity (and vice versa if the economy is below capacity).

Potential output and the OG are, however, difficult to estimate. This is particularly challenging in real-time (i.e. estimates produced using current information) and for open and globalised economies such as Ireland. This paper illustrates that the EU approach – the Commonly Agreed Methodology (CAM) – has historically produced unreliable and inaccurate estimates. Irish OG estimates have been subject to large ex-post revisions overtime, as large as the OG itself. The average absolute revision to the Irish OG over the period 2004-2015 was 2.7 percentage points (pp.) of potential GDP. Revisions to the Irish OG are the second largest in the EU 15 after Luxembourg (2.9 pp.).
As OG estimates feed into the calculation of SB estimates, these have also been subject to large ex-post revisions over time. Assessments have been misleading in real-time (i.e. notably missing the 2004-2007 boom period). The average absolute revision to the Irish SB over the period 2004-2015 was 3.2 pp. of GDP. Incorporating this margin of error into current estimates suggests that Ireland may have already reached its Medium-term Budgetary Objective (MTO) (i.e. a SB of -0.5% of GDP which is projected for 2019). However, it is also possible that Ireland is much further away from this target. This uncertainty makes the conduct of Irish fiscal policy very difficult.

Given the importance and the merit of the EU fiscal rules in supporting stability and sustainability of the public finances, it is important that the key methodological issues are addressed. There is a need for alternative assessments of the cyclical position of the economy, which should go beyond the country specific amendments that can be made to the CAM. It is important that further research is carried out on alternative indicators which are based on different methods to those used by the CAM. In recognition of the unreliability of the CAM, both the Department of Finance and the Irish Fiscal Advisory Council (IFAC) have made significant efforts to develop alternative indicators.

The SB rule is probably the most difficult rule to assess due to the measurement issues of the Output Gap. However, the Commission’s decision to give prominence to the Expenditure Benchmark could also be problematic in an Irish context given its reliance on pro-cyclical estimates of potential output growth (i.e. tracking actual GDP growth). Indicative simulations show that for Ireland the EB permits significant spending when the economy is growing fast and little spending when the economy is underperforming. This would suggest that the EB might not represent a desirable anchor for counter-cyclical fiscal policy-making in Ireland, particularly in good economic times. Furthermore, when Ireland reaches its MTO, the EB will not be formally assessed for compliance purposes. This means that Ireland can only rely on the developments of the SB, with the risk that cyclical revenues might not be identified and could be used to fund permanent expenditure increases or measures narrowing the tax base.

This is a critical moment for fiscal policy-making in Ireland. While there is no doubt that the current EU fiscal rules are important and have played a critical role in the restoration of the Irish public finances, these need to be strengthened. It will be important to identify a further, possibly domestic, approach to fiscal policy which can more accurately guide policy decisions.
A good understanding of the cyclical position of the economy (i.e. whether the economy is at risk of overheating or recession) is critical for Governments conducting budgetary policy and assessing the sustainability of their public finances. In principle, fiscal policy should be counter-cyclical and lean against the economic cycle: if the economy is overheating (i.e. showing unsustainable price increases due to demand outpacing supply), public policy makers should attempt to cool it down by adopting contractionary fiscal policies (i.e. increased taxes and reduced expenditure). Conversely, if the economy is in a recession, weak consumption and investment should be supported by way of expansionary fiscal policy through higher public spending.

The key indicator used to measure the cyclical position of an economy, and therefore to assess the degree of unused or overused economic resources, is the Output Gap (OG). The OG is the difference between the actual level of economic output (measured by real GDP)\(^2\) and potential output, expressed as a percentage of potential output. If the OG is negative, this would indicate that there is slack in the economy as economic inputs (i.e. capital and labour) are not fully utilised. By contrast, the economy is assumed to be at risk of overheating if the OG is positive. While the actual level of economic output is estimated by national statistical agencies such as the Central Statistics Office, potential output (and as a result the OG) is an unobserved economic concept which is estimated using several statistical methods. Potential output is understood as an equilibrium level of economic activity, which is achieved when all factors of production (i.e. capital and labour) are employed at full capacity. The OG measures the distance (‘gap’) of the actual level of output from its estimated equilibrium level.

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\(^2\) Gross Domestic Product (GDP) is the standard variable used to measure the level of economic output. In this note, output and GDP are considered equivalent terms. This is consistent with the approach followed by the EU fiscal rules which conceive potential GDP as potential output. However, alternative indicators to GDP such as domestic Gross Value Added (GVA) or Modified Gross National Income (GNI*) could be also used. This approach would be worth considering in an Irish context to exclude the effects of multinational activities and focus on the domestic side of the economy.
To better understand these concepts, Figure 1 provides a graphical representation for the case of Ireland. The purple line indicates Irish actual GDP (in 2010 prices), the yellow line is the estimated level of potential GDP, while the blue line identifies the OG. Looking at the last decade, the figure highlights the positive output gaps (i.e. overheating in purple – GDP > potential) that Ireland experienced over the period 2004-2007 and the negative output gaps (i.e. recession in blue – GDP < potential) that occurred from 2009 to 2013. An accurate estimate of the OG is crucial to set appropriate counter-cyclical fiscal policy and lean against the economic cycle.

Source: AMECO (annual macro-economic database of the European Commission).

The EU methodology first estimates potential output using a Cobb-Douglas production function approach. The OG is then calculated as a difference between actual GDP and the estimated level of potential GDP. For more information see Havik et al (2014) ‘The production function methodology for calculating potential growth rates & output gaps’, Economic Papers 535, Directorate-General for Economic and Financial Affairs, European Commission.
The Output Gap and Potential Output: the key economic variables underpinning the EU fiscal rules

Estimates of potential output and of the OG underpin the calculation of the two pillars of the fiscal rules of the Preventive Arm of the Stability and Growth Pact (SGP): the Medium-term Budgetary Objective (MTO) and the Expenditure Benchmark (EB). The MTO is a target level for the Government budgetary position set in structural terms. For Ireland, the MTO is a Structural Budget Balance (SB) of -0.5% of GDP. The SB is calculated by correcting the Government Budget Balance (GBB) for the effects of the economic cycle and for one-off measures. The adjustment for the effects of the economic cycle is done using an estimate of the OG.

The motivation for using the SB is that the GBB is highly influenced by cyclical developments in the economy (i.e. economic upturns and downturns). The GBB improves when the economy is growing strongly, while it falls in economic downturns. Conversely, the SB is less affected by temporary changes in economic activity. For example, in Ireland during the 2004-2007 boom period the headline budget balance was in large surplus due to strong cyclical revenues linked to the housing sector. However, if the positive effects of the economic cycle on the government budget balance had been accounted for correctly, the underlying condition of the public finances would have been worse (i.e. a Structural Deficit).

However, while theoretically appealing, potential output and the OG are difficult to estimate. This is particularly challenging in real-time and for countries like Ireland whose economy is open, globalised and characterised by a flexible labour force. The EU methodological approach to estimating potential output and the OG, which is called the Commonly Agreed Methodology (CAM), has struggled historically to provide accurate and reliable assessments. These issues are analysed in the following sections.

Large ex-post revisions and inaccurate assessments of the cyclical position of the Irish economy

The main problem with the estimates of the Irish OG produced by the EU CAM is that these have been subject to large ex-post revisions overtime. For the period 2004-2015, Figure 2 displays the absolute differences between the OG estimates for a given year (e.g. 2004) produced the year prior (e.g. 2003) and the OG estimates for the same given year (e.g. 2004) produced two years later (e.g. 2006).

To better understand the chart, the first data point on the purple line indicates that the 2006 EU Spring forecast revised the estimate for the OG in 2004 by 3.4 pp. compared to the forecast made in the 2003 EU Spring forecast. Overall, ex-post revisions to the Irish OG are large with an average absolute revision of 2.7 pp. of potential GDP. This highlights the volatility of OG estimates and the difficulty to assess in real-time the cyclical position of the Irish economy. The largest ex-post revision occurred in 2007 (7.9 pp.) which is a key turning point in the Irish economic cycle (i.e. the bursting of the housing bubble). Indeed, the 2006 EU Spring forecast estimated at that time a negative OG for 2007 (-2.9%). However, this was revised to +5% (a very positive OG) with the 2009 EU Spring forecast.
A cross-country comparison of revisions to the OG in the EU-15 for the period 2004-2015, which is shown in Figure 3, highlights that Irish OGs (2.7 pp.) are the second most revised after Luxembourg (2.9 pp.) in the EU 15. Revisions are smaller for countries such as France (1.4 pp.), UK (1.4 pp.), Italy (1.5 pp.) and Germany (1.6 pp.).
There are several factors that complicate the estimation of potential output and thus may increase the size of revisions. For example, the degree of economic openness and a large presence of external economic activities (such as multinationals in Ireland) reduce the link between domestic inputs employed (i.e. labour) and aggregate economic output (i.e. GDP).

**Figure 4: Inaccurate real-time estimates of the OG**

![Graph showing the output gap for different years with different colors representing different forecasts.](image)

Source: European Commission Circabc Library.

CAM-based estimates of the Irish OGs have also been misleading for fiscal policy in real-time. This is particularly evident for the boom period as illustrated in Figure 4. Over the years 2003-2007, the OG was estimated to be broadly null or even negative, and therefore it did not highlight the overheating that was happening in the economy. The revised OG in the 2017 Spring Forecast, however, clearly identifies the overheating that was present in the Irish economy.
The fact that estimates of the OG were inaccurate and subject to large revisions has negative implications for the assessment of the underlying position of the public finances (i.e. the Structural Balance). As it is illustrated by the following equation, OG estimates feed directly into the calculation of the SB, which is:

\[ SB = \text{Government Budget Balance (GBB)} - \text{Cyclical Budgetary Component (CBC)} - \text{Once off measures} \]

\[ CBC = \text{OG} \times \text{budgetary elasticity} \]

Following the SB equation, a large positive OG (i.e. GDP is higher than its potential level) increases the Cyclical Budgetary Component (CBC), which captures the positive impact of strong economic growth on the headline balance (i.e. increased tax revenues). A large positive CBC reduces the SB and thus worsens the underlying condition of the public finances (i.e. higher structural deficit or lower structural surplus). The opposite is true if the OG is negative: the SB will be better than the headline balance (i.e. lower structural deficit or higher structural surplus) on recognition of increased expenditure on social supports and reduced tax revenues that happen in a recession.

Figure 5 illustrates that estimates of the Irish SB have been subject to large ex-post revisions overtime.

**Figure 5: Large revisions to the Irish SB**

Source: PBO calculations on European Commission data.

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4 The budgetary elasticity quantifies the percentage change in the Government budget balance in response to a percentage change in the output gap. The budgetary elasticity used in the EU calculations is currently fixed at 0.53 for Ireland meaning that an increase in the output gap by 1 pp will improve the Government budget balance by 0.53 pp.
Applying the same methodology used to calculate OG revisions, the average absolute revision to the Irish SB over the period 2004-2015 is 3.2 pp, meaning that on average the estimate of the SB for a given year (e.g. 2013) done the year prior (e.g. 2012) is subsequently revised by 3.2 pp. two years later (e.g. 2015). This has important implications for today’s fiscal policy decisions. While it is currently forecast by the Department of Finance that Ireland would reach its MTO (i.e. a SB of -0.5%) in 2019, taking account of the average revision (3.2 pp.) would mean that there is a chance that Ireland had already reached its MTO. However, it is also possible that Ireland is much further away from this target. This uncertainty makes the conduct of Irish fiscal policy very difficult. Similarly to OG estimates, Figure 6 shows that SB estimates produced by the Commission over the boom period were inaccurate. Several vintages of EU Spring forecast produced from 2005 to 2007 estimated large structural surpluses. However, ex-post, on account of a well-identified economic overheating (as mentioned before a revised OG from -2.9% to +4.8%), the 2017 Spring forecast estimated a large structural deficit for 2007.

**Figure 6: Inaccurate real-time estimates of the Irish SB**
The most recent OG estimates for Ireland were produced with the Stability Programme Update (SPU) 2018. They restate the difficulties in estimating the cyclical position of the Irish economy. Estimates of the OG were largely revised compared to Budget 2018 (Figure 7). OG estimates appear to be counterintuitive and of little help to understand the cyclical position of the Irish economy. In light of higher than expected GDP growth in 2017, a technical change was made to the CAM. For 2017, potential output grows in line with actual GDP; this allows the OG to be almost zero (0.3% vs 1.6% in Budget 2018). This implies that Ireland achieved its MTO in 2017 (-0.4% vs -1.1% in Budget 2018). However, the path of the OG is odd and this impacts on the SB. In 2018, the OG increases to 1.2% (which should suggest overheating) and Ireland moves far away from its MTO (-0.9% vs -0.5%). As the general government balance is expected to improve in 2018, the dis-improvement in the SB is mostly driven by a change to the OG. In 2019, the OG is estimated to be much smaller (0.6%) and it is forecast to fall to zero by 2021, indicating that the economy will be cooling down in the next few years. It is forecast that Ireland will (re)-achieve its MTO in 2019 and the SB will improve thereafter. A similar adjustment to the CAM was made in Budget 2017 (in light of the 26% GDP growth in 2015), which was then validated by the European Commission.

**Figure 7: OG and SB estimates: Budget 2018 vs SPU 2018**


*Source: Department of Finance.*
Key fiscal policy issues

Previous sections highlighted the need to produce better assessments of the cyclical position of the Irish economy (i.e. better estimates of the OG), which feed into the calculation of the SB. While it must be acknowledged that having the rules is much better than not having them, as it is now, the EU CAM is not well-suited to support appropriate counter-cyclical fiscal policy-making in Ireland. Both IFAC and the Department of Finance have acknowledged this issue on several occasions. IFAC has been carrying out its own research,\(^6\) while the Department of Finance’s latest analysis on alternative estimates of the cyclical position of the Irish economy was published with the SPU 2018.

It is worth noting that country specific amendments can be made to the CAM to take stock of the economic specificities of different countries. It is however unclear the extent to which changes within the EU CAM framework have the potential to allow for better assessments. Even if the CAM is legally binding for Member States, there is a need to continue to work on alternative indicators which explore different methodologies to those used by the CAM. For example, IFAC uses a modular approach which attempts to gather and summarise consistently as much information as possible from a wide range of indicators which can identify imbalances in the Irish economy.\(^7\) As indicated in the SPU, the Department of Finance will publish a working paper on its alternative approaches this summer, which will be open to comments.

Due to the measurement issues of the OG, which impact on the SB, the Commission announced that the compliance assessment would give prominence to the Expenditure Benchmark (EB).\(^8\) As shown in previous sections, the annual estimate of the OG feeds into the annual estimate of the SB, while this is not the case for the EB. The EB is also considered more predictable and easier to measure. Therefore, it could be thought that the EB might represent the next key anchor for Irish fiscal policy, after the 3% headline deficit target during the crisis period and the achievement of the MTO from 2016 to 2019.

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Figure 8: Real-time estimates of historical reference rates during boom and recession periods

Source: PBO calculations on European Commission data.

However, there are two main problems with the EB in an Irish context.

- Firstly, if Ireland reaches its MTO (as projected for 2019), the EB will not be formally assessed for compliance purposes. This means that Ireland can only rely on the developments of the SB; and

- Secondly, the EU EB on its own is not a panacea. The EB limits the annual real growth rate of a corrected expenditure aggregate\(^9\) to the medium-term potential growth rate of the economy. The medium-term potential output growth rate is called the reference rate and it is calculated as a 10-year moving average (the previous 5 years and forecasts for the next 4) of potential output growth.

Therefore, while OG estimates do not feed into the calculation of the EB, estimates of potential output growth\(^10\) do. However, pro-cyclical estimates of potential output growth (i.e. which reflect movements in actual GDP) are an issue, particularly in an Irish context. Figure 8 provides indicative real-time estimates of historical reference rates during boom and recession periods. Had the EU EB been in place from 2004 to 2007, expenditure would have been allowed to grow on average by 6.3% in real terms. This would have been very pro-cyclical given that the economy was already overheating.\(^11\) Conversely, in the most recent recession period, permitted expenditure growth would have averaged only 1.3% in real terms.

\(^9\) The corrected expenditure aggregate is calculated subtracting the following expenditure items from General Government Expenditure: (i) debt interest payments, (ii) Government spending on EU programmes (iii) cyclical unemployment expenditure and (iv) one-off measures. Government Gross Fixed Capital Formation is also averaged over a 4-year period.

\(^10\) The EB is calculated as the sum of the reference rate (i.e. 10-year moving average of potential output growth) and the GDP deflator. A convergence margin is also subtracted if the Member State is not at its MTO. Discretionary revenue-raising measures can permit to increase public expenditure above the limit set by the EB.

\(^11\) It is worth highlighting that had the EB been in place during the boom period, permitted growth in public expenditure would have been lower than the unsustainable growth rates that occurred (average annual growth in real total expenditure excluding interest of general government over 2004-2007 was 8.4%).
Therefore, due to pro-cyclical estimates of potential output growth which tend to track changes in actual GDP, the EU EB, as it is, has limited potential to address counter-cyclical fiscal policy in Ireland. The EB exhibits the tendency to allow for more spending when the economy is growing fast and for less spending in economic downturns. This does not allow for leaning against the economic cycle.

However, it is worth highlighting that the EU methodological approach is not helped by the high volatility of Irish GDP growth rates and more in general by the recent large statistical distortions to key macroeconomic indicators related to Ireland’s large multinational sector. An alternative approach to better estimate the cyclical position of the Irish economy and the underlying state of the public finances should focus on economic and fiscal indicators which are less affected by these distortions. In this regard, Box 1 illustrates the alternative approach used by the European System of Central Banks to calculate the cyclically adjusted budget balance (or SB).

**Box 1: EUROPEAN SYSTEM OF CENTRAL BANKS’ APPROACH TO CALCULATING THE STRUCTURAL BALANCE**

The calculation of cyclically adjusted or structural budget balances is critical to identify the underline fiscal position of public finances. Two main approaches are used to produce these indicators: output gap-based and non-output gap-based approaches. Most institutions (EU, OECD and IMF) follow the first strategy and produce an estimate of the output gap to calculate a cyclically adjusted balance or structural balance. Conversely, the European System of Central Banks (ESCB) adopt a different method that is not based on the output gap, but calculates a cyclically adjusted balance using the cyclical components (gaps) of individual revenues and spending categories. This method entails the following steps:

1. Identifying revenues and expenditure categories affected by the business cycle (i.e. income tax, social security contributions, corporate tax, indirect taxation and unemployment benefits) and linking them to their respective macroeconomic bases (i.e. compensation of employees, operating surplus, private consumption and unemployment);
2. Estimating empirically or using the tax code, the elasticities of each budget category with respect to the relevant macro base;
3. Applying the Hodrick-Prescott (HP) filter to the macroeconomic bases to extract their cyclical components (i.e. their gaps from their equilibrium levels);
4. Deriving the cyclical component (gap) of each budget category multiplying it for the cyclical component (gap) of each macro base and the respective elasticity reflecting how changes in the macro base affect revenues/expenditure categories;
5. Summing up the cyclical components of each expenditure/revenue item and subtracting them from net lending to obtain a cyclically adjusted budget balance.

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12 This is mostly due to the tendency of estimates of potential levels of production inputs to track changes in actual levels of production inputs.

Box 1: EUROPEAN SYSTEM OF CENTRAL BANKS’ APPROACH TO CALCULATING THE STRUCTURAL BALANCE (continued)

The approach allows for the identification of composition changes in economic activity. It is consistent with the idea that different macro bases (e.g. private consumption) might be at different stages of the business cycle compared to GDP. It considers a wider definition of the macroeconomic environment. This is described by means of five macroeconomic bases closely related to specific budgetary items. The purpose of this is to observe how cyclical changes in such macro bases affect each individual revenue or spending categories and in turn this allows for the estimation of the SB. This approach doesn’t rely on GDP figures and as such it has the potential to be less affected by statistical distortions to the Irish national accounts. Drawbacks are the use of the HP filter (and the problems associated with it) and the inability to infer the aggregate output gap and thus to assess the cyclical position of the economy. Future research could work on strengthening this methodological approach, whose key ideas (i.e. bottom up approach which focuses on individual budgetary items) are worth considering.

There are also important fiscal policy considerations for the future. Given that (i) the Irish economy is growing fast and strong growth is expected to continue at least in the near future and that (ii) the MTO is expected to be achieved in 2019 and from 2020 no convergence margin will be applied; the EB will stop being a binding rule and high growth rates in public expenditure could be allowed. Large expenditure increases might in turn raise sustainability risks. Furthermore, given the EB is a growth-based rule, the larger the expenditure base, the higher the permitted annual nominal expenditure increase for a given growth rate.

Finally, the EB does not focus on the other side of the budget balance; namely, tax revenues. Optimal principles of tax policy would recommend having a broad tax base along with lower average and marginal tax rates. Hence, it is important to monitor policy actions that could narrow the tax base and lead to an overreliance on revenue sources which can be temporary and cyclical in nature such as those linked to property transactions or corporate taxes. In principle, the SB rule could address these issues by distinguishing between structural and cyclical revenues and excluding cyclical revenues. However, as this analysis has shown, the correction for the economic cycle and thus the estimation of structural revenues is very challenging and subject to a high degree of uncertainty.
This paper has analysed the main economic concepts underpinning the EU fiscal rules – Potential Output and the Output Gap. The Output Gap is the key indicator used to assess the degree of economic overheating or slack. An accurate estimate of the OG is critical for conducting counter-cyclical fiscal policy and assessing the sustainability of public finances. The pursuit of counter-cyclical fiscal policy has been identified as a priority for Government in the SPU 2018.

However, potential output and the OG are difficult to estimate. This is particularly challenging in real-time (i.e. estimates produced using current information) and for open and globalised economies such as Ireland. The EU approach – the Commonly Agreed Methodology (CAM) – has found it very difficult to provide accurate and reliable estimates. Irish OG estimates have been subject to large ex-post revisions overtime. As OG estimates feed into the calculation of SB estimates, these have also been subject to large ex-post revisions overtime. Assessments have also been misleading in real-time (i.e. notably missing the 2004-2007 boom period).

Given the importance of the EU fiscal rules in supporting fiscal stability and sustainability, it is important that the key methodological issues are addressed. There is a need for alternative assessments of the cyclical position of the economy. While it has been agreed at the EU level that country specific amendments can be made to the CAM, it is important that further research is carried out on alternative indicators which are based on different methods to those used by the CAM. In relation to this, significant efforts have been made by both the Department of Finance and IFAC.

The SB pillar is the most difficult to assess due to measurement issues of the OG. However, the Commission's decision to give prominence to the Expenditure Benchmark could also be problematic in an Irish context given its reliance on pro-cyclical estimates of potential output growth. The EB allows for more spending when the economy is growing fast and for less spending when the economy is underperforming. While it is important to have a rule limiting growth in Government expenditure to foster fiscal sustainability and tackle the deficit bias, the EB runs the risk of failing to sufficiently constrain expenditure in good economic times for Ireland.

In addition, when Ireland reaches its MTO, the EB will not be formally assessed for compliance purposes. This means that Ireland will have to rely on the developments of the SB with the risk that cyclical revenues might not be identified and could be used to fund permanent expenditure increases or measures narrowing the tax base.

This is a crucial moment for fiscal policy-making in Ireland. While the EU fiscal rules are vital for prudent and sustainable management of the public finances, these need to be strengthened. It will be important to identify a further, possibly domestic, approach to fiscal policy which can more accurately guide policy decisions.
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Quarterly Economic and Fiscal Commentary (Q4 2017)  23 January 2018
Post-Budget 2018 Commentary for the Committee on Budgetary Oversight  24 October 2017
Quarterly Economic and Fiscal Commentary (Q3 2017)  5 October 2017
Summary of Pre-Budget 2018 Commentary  4 October 2017
Pre-Budget 2018 Commentary for the Committee on Budgetary Oversight  25 September 2017

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