



**Irish Fiscal  
Advisory Council**

# **Fiscal Assessment Report**

June 2017

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## Foreword

The Irish Fiscal Advisory Council was established as part of a wider agenda of reform of Ireland's budgetary architecture as envisaged in the *Programme for Government 2011*. The Council was initially set up on an administrative basis in July 2011, and was formally established as a statutory body in December 2012 under the *Fiscal Responsibility Act (FRA)*. The Council is a public body funded from the Central Fund. The terms of its funding are set out in the *FRA*.

The mandate of the Irish Fiscal Advisory Council is:

- To endorse, as it considers appropriate, the macroeconomic forecasts prepared by the Department of Finance on which the Budget and Stability Programme Update are based;
- To assess the official forecasts produced by the Department of Finance;
- To assess government compliance with the Budgetary Rule as set out in the *FRA*;
- To assess whether the fiscal stance of the Government in each Budget and Stability Programme Update (SPU) is conducive to prudent economic and budgetary management, including with reference to the provisions of the *Stability and Growth Pact*.

The Council submits its *Fiscal Assessment Reports* to the Minister for Finance and within ten days releases them publicly.

The Council is chaired by Mr Seamus Coffey (University College Cork). Other Council members are Mr Sebastian Barnes (Organisation for Economic Co-operation and Development), Dr Íde Kearney (Dutch Central Bank, De Nederlandsche Bank), Mr Michael G. Tutty and Dr Martina Lawless (Economic and Social Research Institute).

The IFAC Secretariat consists of Eddie Casey, Niall Conroy, Alan Dalton, Kate Ivory, and Kevin Timoney.

The Council would like to acknowledge the help of the staff of the Central Statistics Office. The Council would also like to thank Dr Rachel Finnegan for copy editing the report.

This report was finalised on 31 May 2017. More information on the Irish Fiscal Advisory Council can be found at [www.fiscalcouncil.ie](http://www.fiscalcouncil.ie)

## Summary Assessment

**Successive governments have achieved considerable success in stabilising the public finances since the crisis. Following this, a new budgetary framework has been put in place to help to re-build the capacity to withstand future shocks, and to ensure that the economy does not overheat.** Strong adherence to the new framework is essential to avoid repeats of the policy mistakes that contributed to multiple economic crises in recent decades.

**A strong cyclical rebound in the economy looks set to continue in the near term, suggesting that a further stimulus from fiscal policy is unwarranted. Looking further ahead, fiscal policy should be cautious reflecting still high debt levels and risks to long-term revenue and growth.** A range of measures suggest that a sharp recovery in domestic output and the labour market continued throughout 2016 and into this year. Although a “hard Brexit” is now considered the central scenario in the *Stability Programme Update (SPU) 2017* – having previously been considered a risk – the timing and severity of its impact on the Irish economy could be greater than assumed. This suggests that setting fiscal policy on the basis that sustainable annual growth in revenues might be lower than previously assumed over the long run would be appropriate.

**In the coming years, fiscal policy may have to play an important role in leaning against the wind should the domestic economy begin to overheat. The proposed “Rainy Day Fund” could be a useful tool for reacting to changing circumstances.** While there is much uncertainty over the exact cyclical position of the economy, it is likely to be close to its potential level of output and relatively strong growth is forecast for the coming years. There is a possibility that overheating could occur, especially as the construction sector responds to persistent supply shortfalls. In order to support countercyclical policy, the Department of Finance should more fully develop and communicate its views on the cyclical position of the economy as signs of overheating may be missed if it continues to overly rely on the Commonly Agreed Methodology (CAM) which has limited applicability to a small open economy. The Council welcomes the Department’s commitment to develop an alternative for medium-term forecasts in the coming 12

months, alongside continuing to produce the CAM estimates to meet legal requirements.

**With government debt levels still high, it would be appropriate to refrain from spending unexpected revenue gains, and to maintain a steady pace of deficit and debt reduction. This would be consistent with full compliance with the fiscal rules, while still allowing spending to increase at a relatively modest pace.** The central scenario in *SPU 2017* is one in which government net debt levels fall steadily from a high level of €175 billion (2.4 times total revenue). Fiscal policy should be cautious given the need to reduce debt to safer levels in a phased manner while steering through risks such as those posed by a hard Brexit and potential revenue volatility arising from international tax developments.

**Recent distortions to GDP mean that targeting a 45 per cent debt-to-GDP ratio in the medium term risks complacency, given that this figure is equivalent to a 65 per cent ratio when the effect of methodological issues is taken into account and when using a hybrid measure that more appropriately captures fiscal capacity for Ireland.** A 45 per cent ratio should therefore not necessarily be considered a low or prudent debt burden, and needs to be considered alongside a number of other factors, including long-term pension commitments and spending pressures.

**Since a deficit of less than 3 per cent of GDP was achieved in 2015, improvements in the primary balance, excluding one-off items, have slowed. This is partly due to insufficiently ambitious budget plans, combined with a number of within-year increases in expenditure, and has contributed to limited compliance with the fiscal rules.** Though individually small, in-year increases like those for 2015 and 2016 raise the base level of spending for future years. If repeated, these would leave the public finances more exposed to risks relative to earlier plans, and would further jeopardise compliance with the fiscal rules in later years. These increases are especially risky when the source of the additional revenue is, to a large extent, Corporation Tax, given its high volatility and concentration.

**The new budgetary framework can help the Government to navigate policy prudently in future years. So far, Ireland has shown a minimalist approach to compliance with the fiscal rules in the first two years of the new budgetary framework, resulting in a breach in 2016 and a planned breach for 2017, the combination of which risks a triggering of sanctions.** Ireland now falls under the Budgetary Rule requirements of the domestic *Fiscal Responsibility Act 2012* and the EU Preventive Arm, representing a core part of Ireland's new budgetary framework. The rules help to limit the risk of cyclical or other transitory revenue gains being used to fund permanent increases in expenditure, while allowing for additional expenditure only if it is funded by sustainable revenues.

**Compliance with the letter and spirit of the domestic and EU fiscal rules for 2016 and 2017 has been insufficient.** For 2016, within-year increases in expenditure contributed to a breach in the first pillar of the fiscal rules, the structural balance. Had a temporary, one-off conversion of State-owned AIB preference shares not boosted expenditure in 2015, the second pillar would also have been breached. For 2017, official projections show further non-compliance, suggesting that expenditure should be managed carefully as the room for manoeuvre under current plans is very limited. Breaches of the rules have not been sufficient to trigger potential sanctions thus far (entailing "broadly compliant" EU assessments); however, a stated policy of minimum compliance is inherently risky, especially when within-year spending increases are introduced, or when overruns or unexpected changes to the rules (both through historical inputs and parameters) can occur.

**Looking ahead to the period beyond 2018, there is more scope under the rules for government expenditure to expand in line with the economy's sustainable pace of growth, while gradually reducing debt levels.**

Continuing to adhere to the Expenditure Benchmark after the Medium-Term Objective of a 0.5 per cent of GDP structural deficit has been achieved – a position that goes beyond the formal requirements of the SGP – would go some way towards avoiding a fiscal policy that aggravates the boom-bust cycle. To assess compliance with the fiscal rules, future budget and SPU documents should publish information on outturns for previous years and information on one-offs.

# 1. Assessment of the Fiscal Stance

## Key Messages

- A strong, cyclical rebound looks set to continue in the economy in the near term. Looking ahead, overheating could occur if, for example, a sharp supply response to pent-up demand in the housing market were to lead to very strong construction-led growth. However, risks to trend growth could arise if a hard Brexit were to occur with a greater negative impact than currently envisaged.
- Strong growth in the near term would suggest that a further stimulus from fiscal policy is unwarranted. Ireland has few demand management tools available, and the domestic economy looks to be rapidly closing on its potential output. Fiscal policy in the coming years may have to play an important role in leaning against the wind should the domestic economy begin to overheat. The proposed Rainy Day Fund is one tool that could react to changing circumstances. To support countercyclical fiscal policy, the Department should fully develop and communicate its views on the cyclical position of the economy.
- Since a deficit of less than 3 per cent of GDP was achieved in 2015, within-year increases in expenditure and limited compliance with the fiscal rules have meant that improvements in the primary deficit excluding one-off items have slowed. Though breaches of the rules have not been sufficient to trigger potential sanctions thus far, a policy of minimal compliance, or tolerating small breaches of the rules, carries risks. Though individually small, in-year increases like those in 2015 and 2016 are cumulative and long-lasting. If repeated, they can leave the public finances more exposed to future shocks.
- For 2017 and 2018, it would be appropriate not to spend unexpected revenue gains, and to maintain a steady pace of deficit and debt reduction. This would be consistent with full compliance with the fiscal rules, and would allow spending to increase at a relatively modest pace. Medium-term fiscal policy should be cautious, given the need to reduce debt to safer levels in a phased manner, while steering through risks. These include a hard Brexit and potential volatility in Corporation Tax receipts driven by external developments and the concentration of receipts among a small number of firms. Government net debt levels are forecast to fall steadily from a high level of €175 billion (2.4 times total revenue). Recent distortions in the measurement of GDP mean that the 45 per cent debt-to-GDP target gives a misleading view of the debt burden being targeted for the mid-2020s. If more appropriately measured for Ireland by accounting for methodological changes and using a hybrid measure of fiscal capacity, this ratio would be equivalent to 65 per cent.

## 1.1 Introduction

The Fiscal Council has a mandate under the *Fiscal Responsibility Act (FRA) 2012*, and with reference to the requirements of the *Stability and Growth Pact (SGP)*, to assess the Government's fiscal policy stance. The sections below draw upon the analysis provided in later chapters, in assessing the fiscal stance outlined in *SPU 2017*. The Council's assessment is informed by the extent of compliance with the fiscal rules, along with a complementary economic assessment that takes into account the state of the public finances, the stage of the economic cycle, and the growth prospects for the economy. Section 1.2 reviews the current cyclical position of the economy and the backdrop for recent developments in the public finances. Section 1.3 reviews the fiscal stance relevant to 2017 and 2018, while Section 1.4 discusses issues relating to the medium-term fiscal stance.

## 1.2 The Recent Macroeconomic and Fiscal Context

### 1.2.1 Recent Macroeconomic Context

#### Demand-side Developments

Assessing recent developments in the Irish economy with a high level of precision has proven challenging, given a variety of distortions related to the activities of foreign-owned multinational enterprises in Ireland. To develop a greater insight into Irish economic activity, the Central Statistics Office (CSO) will produce alternative indicators such as Gross National Income\* (GNI\*), which adjust for these distortionary activities on an ongoing basis from June 2017 (Chapter 2, Box D).

Another way to overcome the distortions driven by foreign-owned multinational enterprises is to examine a range of alternative measures which provide some signal as to trends in the domestic economy. The focus on domestic economy activity is warranted, given that it is typically more tax-rich and, hence, of greater significance for the setting of appropriate fiscal policy.

A range of alternative measures of economic activity show that the Irish economy has grown at an exceptional pace in recent years. Figure 1.1 shows year-on-year growth in employment, underlying domestic demand, consumer spending, and estimates of traditional sector industrial production excluding the other foods sector.<sup>1</sup> For all of these measures, a rapid recovery is evident from at least 2014. Preliminary information suggest that growth in 2016 appears to have also been strong, albeit with growth in consumer spending, traditional sector industrial production (excluding other foods), and underlying domestic demand moderating during the year. The timing of the softening in the industrial production and consumer spending measures appears to have coincided with the

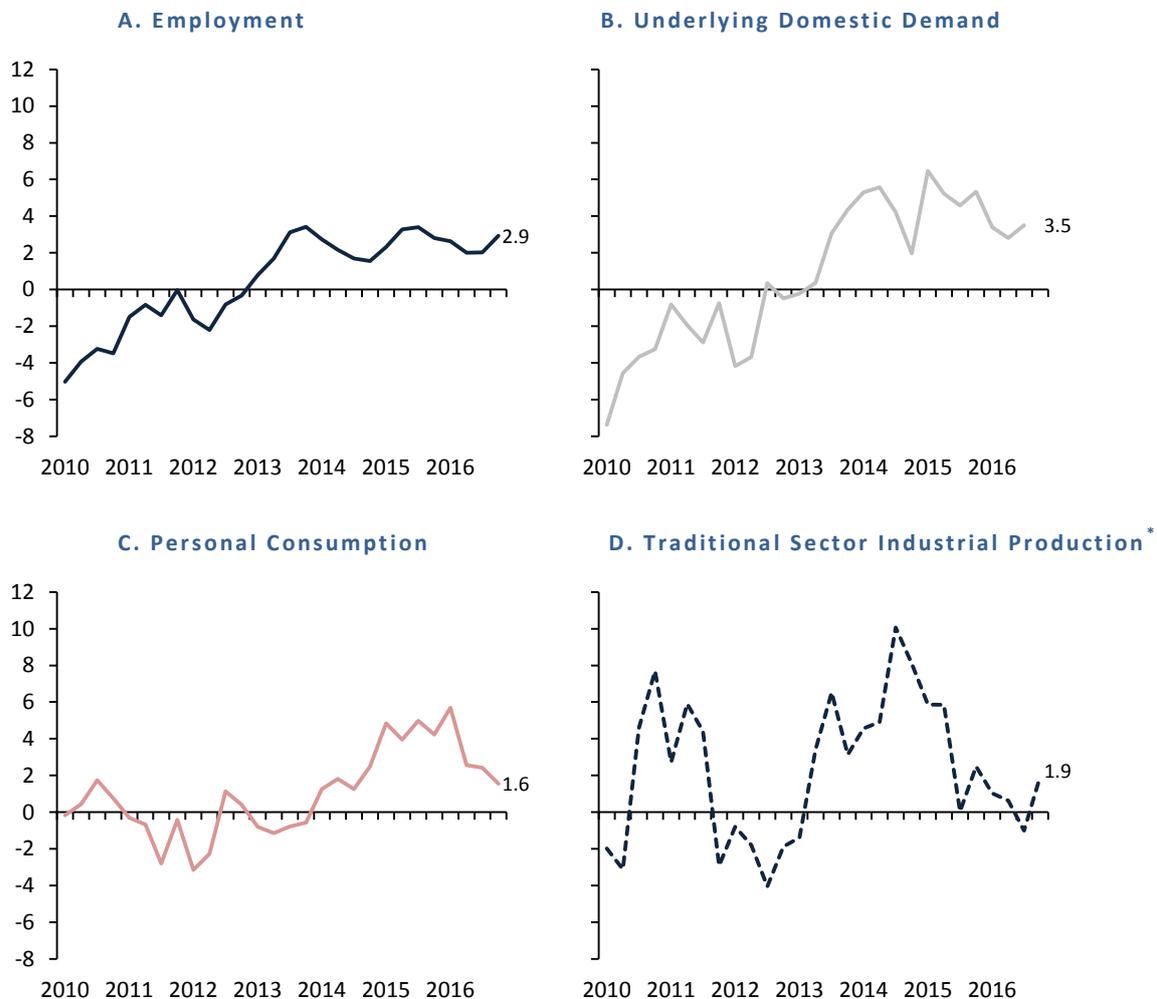
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<sup>1</sup> The other foods sector is understood to be quite volatile given the influence of foreign-owned multinational enterprises that operate in the sector.

impact of the UK referendum decision to leave the EU. The UK’s importance as an export destination means that exchange rate developments are likely to have weighed on domestic industry, while uncertainty may have played a role in dampening consumer spending.

**Figure 1.1: Indicators of Economic Activity**

Volumes, Percentage Change, Year-on-Year



Sources: CSO; and internal Irish Fiscal Advisory Council (IFAC) calculations.

Note: Underlying Domestic Demand strips out intangibles and aircraft investment in full as these are, in the main, imported, with little impact on real GDP.

\*Traditional Sector industrial production is adjusted to strip out estimated contributions of the “other foods” subsector is strongly influenced by foreign-owned multinational enterprises.

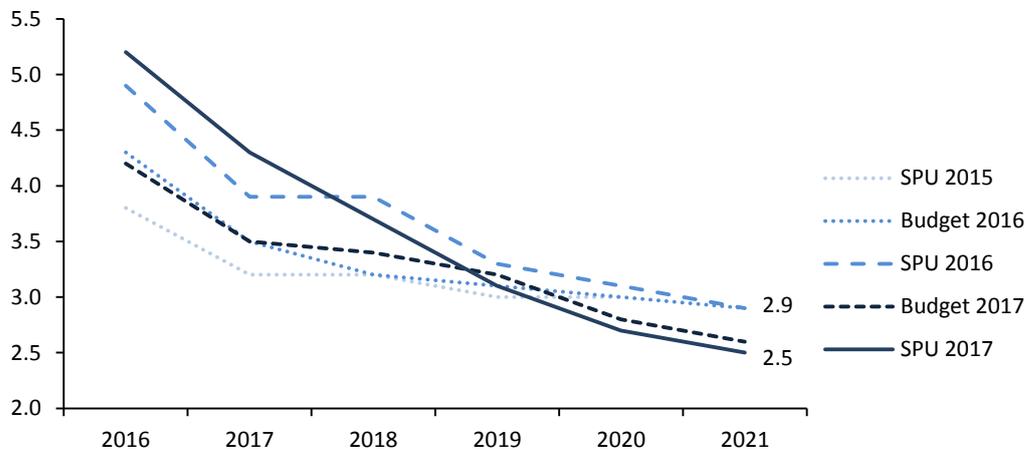
Notwithstanding the need for balance sheet repair and the impact of the UK referendum decision, the strength of recent dynamics would appear to be consistent with the “bounce-back” model of a recovering economy. This model would see a sharp, post-crisis rebound in growth that would

eventually give way to an expansion phase marked by more moderate growth rates.<sup>2</sup> If applicable to Ireland’s recovery over recent years, the rapid growth observed in recent domestic economy trends might be unlikely to be sustained, and one would anticipate that the economy would eventually return to trend growth rates. Moreover, it would suggest that much of the recent improvement in revenues and falling cyclical expenditures would therefore be related to a cyclical upswing, as the economy rebounds from the recent crisis.

The view that growth will moderate in coming years, and revert to trend growth rates, is also consistent with the demand-side forecasts produced by the Department of Finance (hereafter referred to as “the Department”) in *SPU 2017*. The Department is anticipating a substantial slowing of recent growth to below 3 per cent annual average real GDP growth from 2019 onwards. This is partly informed by an anticipated reversion to trend growth rates. However, the assumed moderation is now expected to be steeper than previously thought, given the strength of recently realised growth outturns, and the expectation that the UK exit from the EU will negatively impact medium-term real GDP growth prospects (Figure 1.2).

**Figure 1.2: Recent Forecasts for the Medium-term Show a Steeper Decline in Growth**

Real GDP, % change (year-on-year)



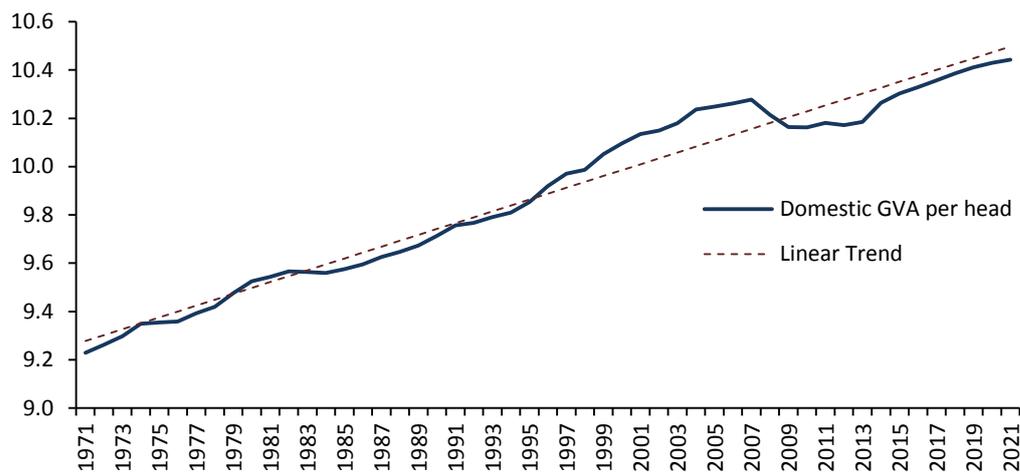
Sources: Department of Finance (various publications).

This steepening of the trajectory for future growth rates, if realised, could entail a permanent shock to Ireland’s level of output relative to long-run trends to date. Taking Domestic Gross Value Added (GVA) per head (i.e., the output of sectors other than those that are dominated by foreign-owned multinational enterprises), one can examine developments relative to a simple linear trend over

<sup>2</sup> An example of a model with discrete economic phases is provided in Sichel’s (1994) three-regime model, which allows for distinct expansion, recession, and recovery phases. Kim *et al.* (2005) extend the analysis, arguing that relating the strength of the recovery to the preceding recession mirrors actual business cycle features better than standard models. Applying the model to international data, they find the bounce-back effect to be typically smaller outside of the US, corresponding to larger permanent effects of recessions. Additional support is provided in Galvão (2002); Beaudry and Koop (1993); Friedman (1964; 1993); and Wynne and Balke (1992; 1996).

time. The results are a simple illustration of the recent experience. Figure 1.3 shows the above trend activity observed during the 2000s, which reversed sharply as the property/credit bubble collapsed after 2008. The domestic economy has recovered from 2014 onwards, and is ahead of pre-crisis levels, though it has not converged on its linear trend shown below. It also appears to indicate that the economy may adjust to a slower pace of trend growth compared to previous decades.

**Figure 1.3: Irish Domestic GVA per Head against Trend**  
 Domestic GVA per Head (Constant Prices) in Log-Levels, Linear Trend



Sources: CSO; Department of Finance (*SPU 2017* forecasts); and internal IFAC calculations.

Note: Domestic GVA data are available from the CSO for the period 1995-2015. Earlier and forecast years are estimated by exploiting the relationship between growth in underlying domestic demand (including *SPU 2017* forecasts) and domestic GVA. While underlying domestic demand data are not available prior to 1998 due to the lack of data on intangibles and aircraft investment, which are thought to be small and so are not corrected for in the earlier period. The linear trend is estimated by regressing domestic GVA per head (in logs) against a constant and a time trend. This trend implies per capita growth of 2½ per cent per annum.

The central scenario for growth in coming years is one of seemingly strong growth that moderates sharply to weaker-than-previously-expected trend growth rates, but there are also a number of risks surrounding this central scenario.

### Risks to Growth

For the near term, annual GDP growth may be stronger than the Department currently expects, due to (i) the substantial carryover into 2017 from 2016; and (ii) the possibility of a stronger-than-expected cyclical recovery in coming years, particularly stemming from the residential property sector.

As noted in Chapter 2, if the latest national accounts data were taken at face value, and the economy were to stand still in 2017, growth would still be 4 per cent for the year. This reflects the pace of quarter-on-quarter growth recorded in late 2016. Taken at face value, the Department’s 2017 forecasts imply close to no quarter-on-quarter growth this year. This feature of the forecasts

could be explained by assumed revisions to last year's profile of quarterly growth. Though the quarterly national accounts data are subject to large revisions, the direction of such revisions is not found to be biased in any one direction over time (Casey and Smyth, 2016). In light of this, one might reasonably assume that annual growth for 2017 could be faster than indicated by the Department's central scenario.

Near-term risks of a stronger cyclical upswing are particularly evident in relation to residential construction activity. There is reason to suggest that significant pent-up demand in the residential property sector may have emerged in recent years (Box C, Chapter 2). A potential supply response could see employment and output in the sector increase rapidly, as in the 2000s, such that output in the sector temporarily exceeds annual demand in order to address any backlog.<sup>3</sup> How the housing sector might then return to more normal levels of activity, thereafter, would have a significant bearing on the cyclical position of the economy.

In the medium term, more persistent downside risks are visible. Principal among these is the possibility that the outcome of negotiations on the UK's departure from the EU could lead to a more sustained negative impact on Irish economic growth than is currently estimated. Additional risks are posed by the appropriateness of wider Euro Area monetary policy for Ireland over the medium term, as well as by a variety of potential external demand and exchange rate shocks. Changes in US and EU policies, particularly in relation to Corporation Tax, could also negatively impact on foreign direct investment (FDI) flows into Ireland.

The *SPU 2017* forecasts assume a hard Brexit as the most likely outcome of negotiations – an outcome wherein a World Trade Organisation-based tariff regime is adopted by the UK from the end of the first quarter of 2019. While a hard Brexit would previously have been considered an extremely adverse scenario, recent developments suggest that this is the most likely outcome of negotiations. The expected impact of a hard Brexit may be understated in COSMO simulations (Bergin *et al.*, 2016), which inform the Department's views on the medium-term impact on the Irish economy. The COSMO estimates assume that the impact on the Irish labour market from a shock to UK output is equivalent to a shock to an average trading partner. However, it is likely that UK-destined exports attract a much higher labour intensity than exports destined for markets further afield. Of course, by assuming a hard Brexit as the central scenario, there would be some upside risk to medium-term growth forecasts in *SPU 2017*, should negotiations result in a less severe outcome for Irish trade activity.

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<sup>3</sup> Demand is typically determined by expected changes in demographics, new household formation and headship rates (i.e., the proportion within each age group identified as capturing heads of households).

Uncertainties surrounding future growth are relatively large for the Irish economy in normal circumstances, but the range of possible outcomes to Brexit negotiations casts further doubt on the trend growth rates to which the economy may revert in future years.

As discussed in IFAC (2016b), there are a number of possible channels through which UK potential output growth could be lowered as a result of Brexit. The degree of openness of an economy to trade, capital and labour market flows is an important determinant of a country's long-run potential growth rate. Reduced openness post-Brexit could limit opportunities in the UK to increase productivity through the adoption of new processes either encouraged by FDI or by trade and competition with foreign competitors. A reduction in the size of the market available to UK firms could also hinder firms' ability to exploit areas of comparative advantage, lowering aggregate productivity. Furthermore, potential growth could be reduced through the labour supply channel. The size of the labour force is influenced by migration flows, the outlook for which appears more constrained following Brexit.

Lower potential output growth in the UK would bode poorly for the Irish economy if other export markets failed to pick up resulting demand shortfalls. Reduced Irish trade activity could, in turn, hamper long-run potential growth in Ireland. Brexit is expected to weaken trend growth in the UK – a major export market for the domestic Irish economy. A failure to offset this by diversifying into other markets could weaken Irish productivity growth through the same channels described above.<sup>4</sup>

Irish exporters face significant challenges in diversifying to other export markets, and there is a possibility that increased FDI inflows may not offset other productivity losses. Using gravity model approaches applied to Irish data, Lawless (2010) identifies that strong negative effects on exports are evident for geographical distance to markets, while a commonly shared language and well-developed communications infrastructures are factors found to be supportive of exports. Barrett *et al.* (2015) observe that Ireland may attract additional FDI projects including some relocation of FDI from the UK. However, based on patterns of the location choice of new FDI projects in Europe over the past ten years, the Economic and Social Research Institute (ESRI) research finds that the expected additional attractiveness of Ireland to new FDI projects is likely to be small.

### **Developments in Trend Growth and Cyclical Activity**

To understand what might be considered a sustainable level of output and pace of growth for the economy, the Council uses a variety of approaches. As well as producing estimates of potential

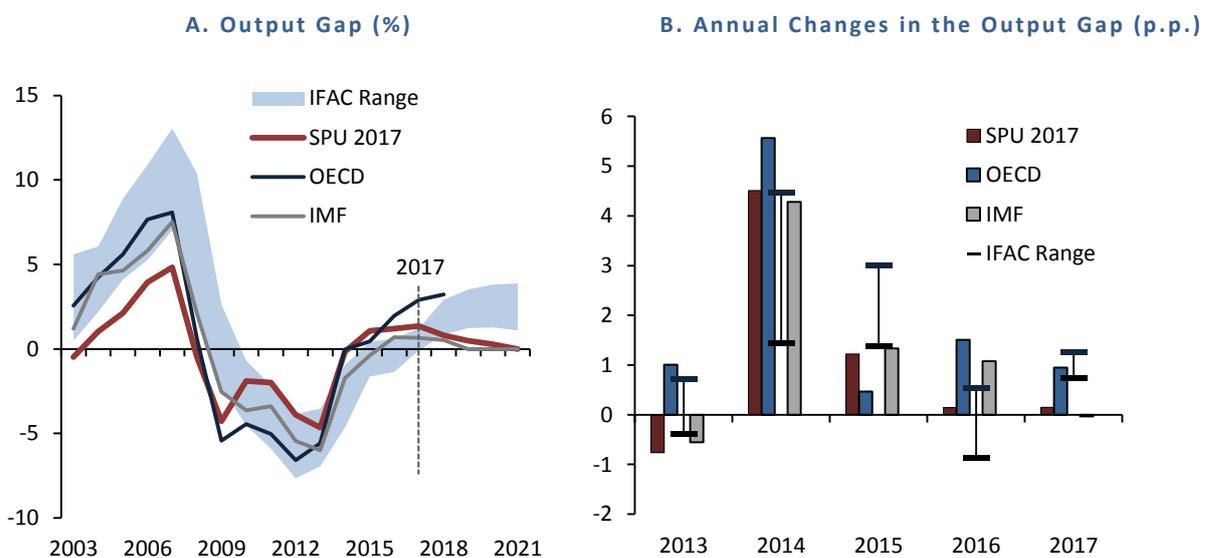
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<sup>4</sup> It is worth noting again in this context that, while a "hard Brexit" is now the central scenario in the *SPU 2017* forecasts, there remain substantial uncertainties involved in determining the likely outcome and impact.

output growth based on conventional production function and uni/multi-variate filter approaches, the Council uses a modular approach to assess cyclical developments in the economy. This involves assessing key sources of imbalances that can help explain the deviation of the economy from its level of potential output (Chapter 2).<sup>5</sup>

Figure 1.4 shows a range of measures of the output gap and changes in this from year to year. A consistent finding is that a large negative output gap is likely to have opened up from 2008, as economic output fell well below what could be sustainably be produced (i.e., if all resources in the economy – human and capital – were fully utilised, and if productivity grew at its trend pace). Since 2013, however, estimates have shown a conflicting picture. Some estimates, including those produced by the Department of Finance using the EU Commonly Agreed Methodology (CAM) and the OECD, suggest that the economy swiftly rebounded and exceeded sustainable output levels as early as 2015. International Monetary Fund (IMF) estimates – though more plausible – also suggest that the output gap closed as early as last year. This is unlikely to be the case, given the absence of other clear signs of imbalances/overheating.

**Figure 1.4: Indicators of Cyclical Activity**  
% of Potential Output



Sources: Department of Finance, *SPU 2017*; IMF *World Economic Outlook* (April 2016); OECD *Economic Outlook* (Nov 2016); and internal IFAC calculations.

Note: The IFAC range is produced using the maxima and minima of results from a variety of approaches. These are outlined in Box A of the November 2015 Fiscal Assessment Report and Box B of the June 2015 Fiscal Assessment Report. Given the distortions to standard measures like GDP and GNP, the range currently focuses on measures produced by using measures of domestic economic activity.

<sup>5</sup> Estimates of the output gap are subject to a high degree of uncertainty, as they require knowledge of the economy's potential growth rate, which is unobservable and must be estimated. The openness of the Irish labour market and the importance of migration mean that estimates of the output gap for Ireland are subject to particular uncertainty.

Official output gap estimates in *SPU 2017* based on the CAM, with a positive output gap of close to 1.4 per cent for 2017, appear to overstate the size of any output gap. The *SPU 2017* estimates are also inconsistent with other indicators of imbalances in the economy such as the current account and labour market (Chapter 2). Estimates from the IMF and the Council's own estimates attempt to strip out the activities of multinational enterprises, and focus on domestic economic activity. The Council's estimates suggest that the output gap is likely to be near closed in 2017. If still negative – as other indicators of imbalances such as credit, labour market indicators and housing might suggest – then the output gap is still likely to close quickly, given the pace of growth envisaged in *SPU 2017*. On the face of it, the model estimates point to some risk that overheating could occur in the medium term, given the pace of growth currently projected.

*SPU 2017* estimates for the path of the output gap in later years also seem at odds with other indicators. The *SPU 2017* estimates show that an initially positive output gap will gradually close by 2021 (i.e., such that the economy cools from a position of overheating). The medium-term closure of the output gap produced under the CAM by the Department is achieved by assumption (Chapter 2) and is a common approach among other agencies that produce medium-term forecasts. Looking at a range of imbalance indicators and alternative models of potential output, it seems unlikely that there is substantial overheating in the Irish economy at present.

Overheating could become an issue in future years, if recent strong growth were to continue, however. A more plausible path for the output gap would be that it is closed or slightly negative this year, with potential overheating arising in future years should recent strong demand growth persist. The risk of overheating occurring in coming years is significant as noted in Box C, Chapter 2. This is particularly so if a sharp supply response to possible pent-up demand in the housing market were to contribute to unsustainable construction-led growth.

Despite being the official methodology for fiscal surveillance by the European Commission, the CAM has many problems when it comes to estimating the cyclical position of the Irish economy (Chapter 2). A reliance on the CAM for medium-term forecasting has been an area of concern in the Council's previous endorsement exercises when assessing the Department's forecasting methodology. The Department has, to date, based its official estimates of the cyclical position of the economy on the CAM, because this is required for fiscal surveillance. However, the Department and the Council believe that the estimates produced do not accurately represent the cyclical position of the economy. One feature of the CAM that may prove especially unrealistic for future years is the mechanical closure of the output gap over the medium-term such that CAM estimates, by construction, do not show an output gap that is opening up (i.e., overheating by the end of a medium-term forecast horizon), even if there are legitimate reasons to believe this could happen.

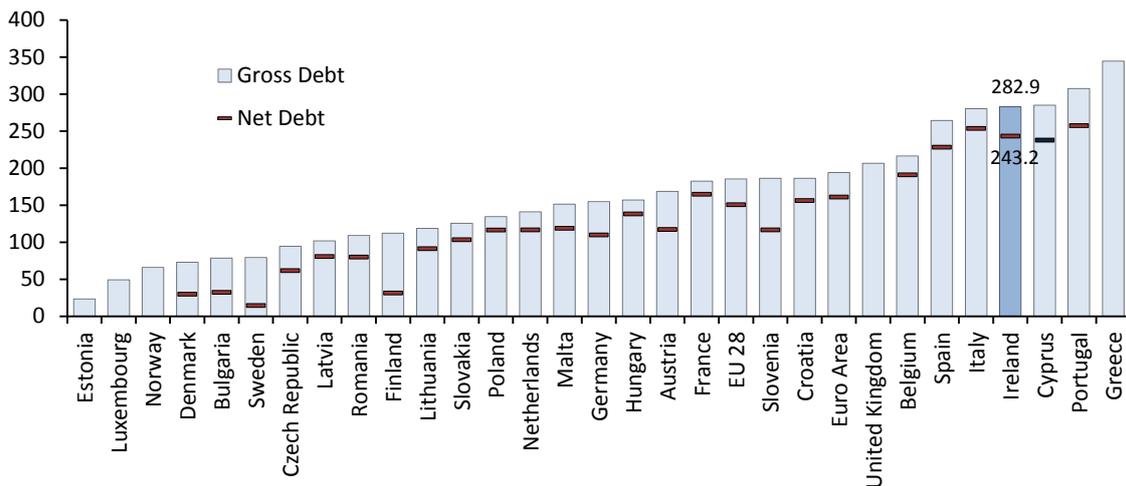
The Council welcomes the Department’s commitment to progress on developing and reporting alternatives to the CAM, as part of their medium-term forecasts in the coming 12 months. While still continuing to produce CAM estimates to meet legal requirements, an alternative set of estimates that develops and communicates the Department’s analysis should help to ensure that potential signs of overheating are communicated publicly and acted upon if necessary.<sup>6</sup> The quality of the methodologies used is one factor considered by the Council in the endorsement of macroeconomic forecasts (see Chapter 2). The Council notes that future endorsement of the forecasts will be at risk if progress is not achieved in developing a better basis for the Department’s view of medium-term growth and the cyclical position of the economy.

### 1.2.2 Recent Fiscal Context

Following a remarkable correction in the public finances, Ireland has exited an emergency programme of financial support with the IMF and has seen its government deficit below 3 per cent of GDP since 2015.

However, the crisis has left Government debt levels at still very high levels. Government debt, net of liquid assets, remains at close to €175 billion (2.4 times total revenue), as compared to just €26 billion before the crisis in 2006 (0.4 times total revenue). Debt levels also remain high in comparative terms, with Ireland displaying among the highest government debt levels recorded in Europe, relative to revenues (Figure 1.5).

**Figure 1.5: Comparison of Debt-to-Revenue Ratios**  
Percentage of Total General Government Revenue (Q3 2016)



Sources: Eurostat; and internal IFAC calculations.

Note: Net debt from Eurostat Government Finance Statistics calculated as gross consolidated debt less excessive debt procedure (EDP) debt instrument assets (F2: currency and deposits; F3: debt securities; and F4: loan assets). Total General Government revenue = 4 quarter sum.

<sup>6</sup> Box B of the *November 2015 Fiscal Assessment Report* highlighted how other Finance Ministries in Europe routinely present alternative output gaps as opposed to those produced under the CAM for the purposes of fiscal surveillance.

The distortions to national accounts measures, such as GDP and GNP, arising from the activities of foreign-owned multinational enterprises, have meant that standard debt ratios are no longer meaningful for Ireland. Instead, the relative debt burden may be better understood by using measures of net debt as a share of General Government revenue, given the propensity for GDP and GNP figures to seriously distort the fiscal position. This approach is not unproblematic, as the ratio captures actual revenue (including surges in Corporation Tax receipts), rather than the potential revenue base. However, until a better estimate of the size of the economy is published (such as GNI\* - see Box D), the ratios based on government revenue arguably give a more informative picture of the fiscal position.

Box A highlights how the Government's new 45 per cent debt ratio target would, in historical terms, and using a hybrid measure that more appropriately captures fiscal capacity, be broadly equivalent to a 65 per cent debt ratio. The target is to be achieved by the mid-part of the next decade. A specified debt ratio can serve as a useful fiscal target (Portes and Wren Lewis, 2014). However, a target equivalent to a 65 per cent debt ratio is high, compared with pre-crisis levels and international norms. Government debt, net of liquid assets, was equivalent to just 0.4 times total revenue prior to the crisis, as compared to 2.4 times now, while the EU average is currently 1.5 times revenue (and closer to 1.3 when Ireland, Italy, Portugal, Spain, Cyprus and Greece are excluded). A 45 per cent ratio should not be considered a low/prudent debt burden, and needs to be considered alongside a number of other factors, including long-term pension commitments and spending pressures. It should be clarified as to whether the commitment is a fixed target, or a ceiling, or a steady-state target to be achieved on average over the cycle, and whether it is intended to be maintained permanently.<sup>7</sup>

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<sup>7</sup> The *SGP* sets out a limit for the debt ratio of 60 per cent of GDP rather than a target. Also it is not clear if the 45 per cent target is intended to have any impact on policy or whether it is simply a forecast expected to materialise. The fiscal rules, if adhered to fully, would also ensure that debt levels gradually fall to lower levels regardless of the specification of a debt ratio target.

## 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.<sup>8</sup>

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.

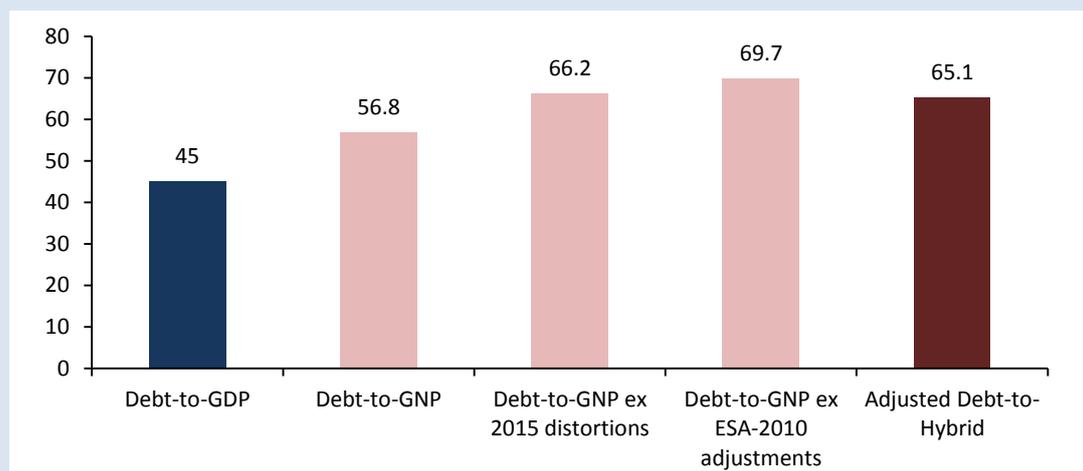
If one was to exclude the European System of National and Regional Accounts (ESA) 2010 innovations such as newly added R&D investment activities, the target would rise to an equivalent ratio of 70 per cent. Since GNP places zero weight on the revenue potential of the gap

<sup>8</sup> 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.

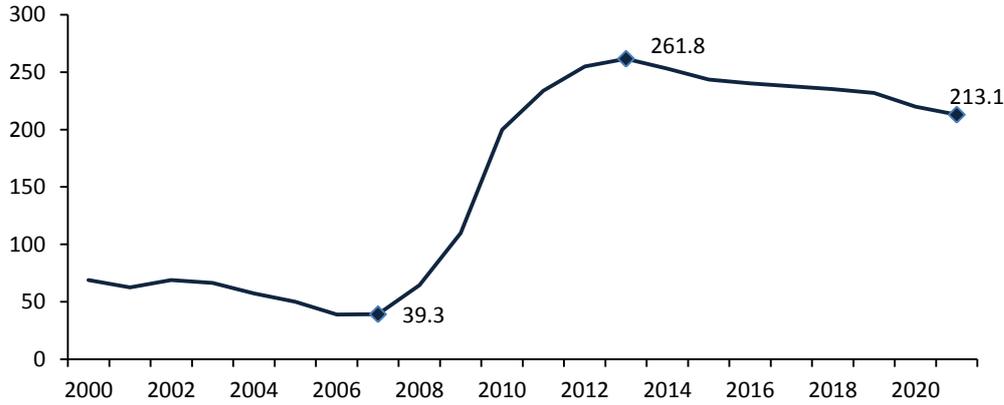
Note: Adjustment for 2015 distortions shown is based on the CSO's stated growth in NNP of 6.4 per cent applied to the 2014 nominal GNP level. R&D investment was capitalised as a part of ESA-2010's methodological changes and is excluded along with other smaller ESA-2010 adjustments in the second last 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).

With the stock of debt still high by historical and international norms, it is worth considering the flows that will determine developments in this over the coming years, and whether current debt levels can be expected to return to safer levels with a reasonable probability. Figure 1.6 shows the Department's central view of the net debt-to-revenue ratio for the forecast horizon.<sup>9</sup> By 2021, it is envisaged that debt will still be more than twice annual total General Government revenue.

<sup>9</sup> Note that for the purposes of determining the implied path for the net debt ratio, changes in EDP debt instrument assets for forecast years are assumed to be in line with the official projections of changes in cash balances.

**Figure 1.6: Evolution of Ireland’s Net Debt-to-Revenue Ratio**

Net Debt as % of Total Revenue, General Government Basis



Sources: CSO; Department of Finance (*SPU 2017*); and internal IFAC calculations.

Note: Net debt from Eurostat *Government Finance Statistics* calculated as gross consolidated debt less EDP debt instrument assets (F2: currency and deposits; F3: debt securities; and F4: loan assets). Total General Government revenue = 4 quarter sum.

### Debt Sustainability

The key factors that will determine developments in the debt-to-GDP ratio in coming years can be elaborated using the standard “debt snowball” equation:

$$\Delta D_t = \left( D_{t-1} * \frac{i_t - g_t}{1 + g_t} \right) - PB_t + SF_t$$

...where the change in the debt ratio for this year ‘ $\Delta D_t$ ’ is defined as the previous year’s debt ratio times the difference in average interest costs ( $i_t$ ) and nominal GDP growth ( $g_t$ ) less the primary balance as a share of GDP ( $PB_t$ ), plus any “stock-flow” changes as a share of GDP (e.g., changes in cash balances or asset disposals). Table 1.1 summarises *SPU 2017* expectations for some of these key drivers of debt developments.

As shown in Figure 1.6, these drivers imply a steady pace of debt reduction from 240 per cent of revenue at end-2016 to 213 per cent by 2021. In considering the appropriate fiscal stance for the coming period, it is important to bear in mind the sensitivity of this debt trajectory to alternative assumptions.

**Table 1.1: Summary of Key Debt Drivers in the SPU 2017 Baseline Scenario**  
% GDP in 2016 Unless Stated, General Government Basis

	Value	Details
<b>Net Debt Stock</b>	66.0	While falling to ostensibly lower levels, this is a less informative measure given recent GDP distortions.
<b>Net Debt Stock (% Revenue)</b>	240.3	Debt as a share of total revenue has proven a more informative measure of Ireland's debt burden of late, albeit one that reflects actual rather than potential tax base. This remains very high compared to international and historical norms, e.g., compared to below 40% in 2007; and compared to an EU average of 150%.
<b>Nominal GDP Growth Rates Expected over 2017-2021 (avg.)</b>	4.7	The <i>SPU 2017</i> central scenario envisages nominal GDP growth at the upper range of expectations for advanced economies, but incorporates a hard Brexit scenario which is expected to lower trend growth over the medium term.
<b>Primary Balance excluding one-offs</b>	1.6	Ireland's primary surplus is high by historical standards and should help facilitate a steady pace of debt reduction, though <i>SPU 2017</i> envisages limited changes in the 2016 balance by 2018 (rising to 1.9%).
<b>Average Interest Rate Expected over 2017-2021</b>	2.8	Average interest rates are expected to remain low by historical standards, given the assumed interest rates and large share (c. 92%) of interest payments at fixed rates. The scale of debt implies a substantial share to be rolled over during 2018-2021 (some €50 billion, 16% GDP) and interest rates are expected to rise from multi-century lows.
<b>Stock-Flow &amp; Other Changes (cumulative, 2017-2021)</b>	+4.5	Other debt developments are expected to add 4.5 percentage points of GDP to the debt ratio over the forecast period, though <i>SPU 2017</i> does not incorporate disposals of state-owned banking sector assets estimated to be worth some 5% GDP (or 18% total general government revenue). <sup>a</sup>

Sources: Department of Finance; and internal IFAC calculations.

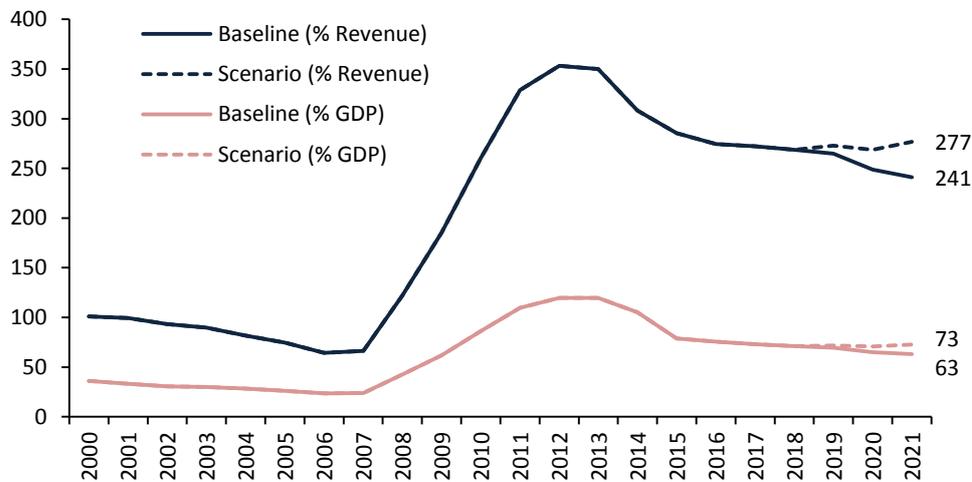
<sup>a</sup> Estimates of asset disposals are taken from end-2016 estimates of the Irish Strategic Investment Fund's directed portfolio, comprising investment values of €11.3 billion for Allied Irish Banks and €1.1 billion for Bank of Ireland, as well as an estimated PTSB shareholding value of approximately €1 billion.

### Illustrative Risks to Baseline Gross Debt Scenario

The baseline scenario is one that suggests a steady pace of debt reduction over the coming years. This is reinforced by plans to keep spending growth rates within those expected for government revenues, as well as by relatively low interest rates that are, to a large extent, fixed.

However, a number of alternative scenarios are plausible, and it is worth considering one such scenario for coming years. Figure 1.7 illustrates what might happen if the risk of a sharp and sustained reduction in nominal GDP growth rates forecast in *SPU 2017* were to materialise from 2019 onwards (equivalent to growth rates 2 percentage points lower for each of these years). This could happen if, for example, the impact of a Brexit-related shock were much harder than currently envisaged, or if the scale of the multinational enterprise sector operating in Ireland were to shrink, with coincident impacts on Corporation Tax and output. This scenario suggests that, were such a shock to occur, the debt-to-revenue ratio could rise to 277 per cent, as compared to the 241 per cent suggested by SPU figures, and in the absence of any policy response. In a situation where debt is already at high levels, the impact of such shocks on creditworthiness can be more pronounced.

**Figure 1.7: Illustrative Shock Scenario from 2019 Onwards**  
Gross Debt as % of GDP or Total Revenue, General Government Basis



Sources: CSO; Department of Finance (*SPU 2017*); and internal IFAC calculations.

Note: Using the Council’s Fiscal Feedbacks Model, the scenario shows the debt ratio path for an illustrative shock equivalent to a typical forecast error on nominal GDP growth (-2pp relative to baseline growth rates) in each of the years 2019, 2020 and 2021. Revenue is assumed to have an elasticity with respect to nominal GDP of 0.9, which is applied only to the deviation in nominal GDP from its baseline.

There are other considerations that could offset the rise in debt portrayed in this scenario, as well as some plausible risks to the upside. A stronger near-term cyclical recovery, as discussed in Section 1.2.1, could also lessen/offset any shock in later years, while any disposal of banking sector assets – if used for debt reduction – could limit the extent to which an adverse shock would raise the debt ratio in later years.

### 1.3 Assessment of the Fiscal Stance in 2017 and 2018

Given the macroeconomic and fiscal context currently evident, this Section assesses the appropriate fiscal stance for Ireland in 2017 and 2018.

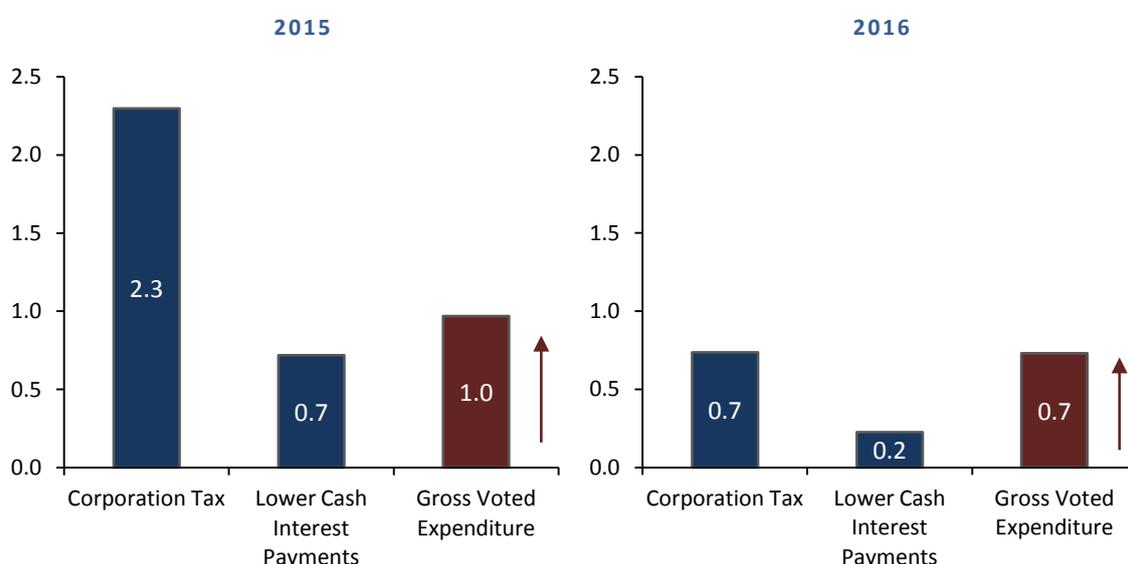
With the economy expected to expand at a stronger-than-trend growth rate in the near term, and debt levels still high, it would be appropriate to allow spending to increase at a relatively modest pace, and not to spend any unexpected revenue gains. From a demand management perspective, there is little need for an expansionary fiscal stance, given the strength of the recent cyclical recovery, which is expected to continue through 2017, 2018 and beyond. Moreover, the pace of growth suggests that any remaining negative output gap is likely to close rapidly in the short term, with unemployment expected to fall below 6 per cent by the first quarter of next year (with the latest estimate already 6.4 per cent).

There are also uncertainties related to the eventual outcome of Brexit negotiations. These could weigh on Ireland’s future trend growth rates. If government spending levels were grown at a faster pace than ultimately proved to be sustainable following the outcome of these negotiations, then it could be difficult to unwind spending from higher levels. There may also be a need to support demand following any negative shock.

The post-crisis budgetary framework should be fully implemented to ensure that procyclical increases in spending are not undertaken if cyclical revenues are stronger than expected. A repeat, over several years, of the pattern of in-year spending increases evident in 2015 and 2016 has the potential, alongside upward revisions to planned spending in future years, to undermine the public finances, and would not be conducive to prudent economic and budgetary management.

The past two years saw in-year spending increases and a far looser than planned budgetary stance on the back of revenue surprises. In-year gross voted spending increases of €1 billion in 2016 and €0.7 billion in 2015, compared to budget-time projections, absorbed the majority of better-than-expected tax revenues during the two years. Such a policy is especially risky when the source of the additional revenue is, to a large extent, Corporation Tax (Figure 1.8).<sup>10</sup>

**Figure 1.8: Use of Unexpected Gains for In-Year Expenditure Increases**  
 € Billions, Actual Outturn Less Budget for Respective Year (2015 and 2016)



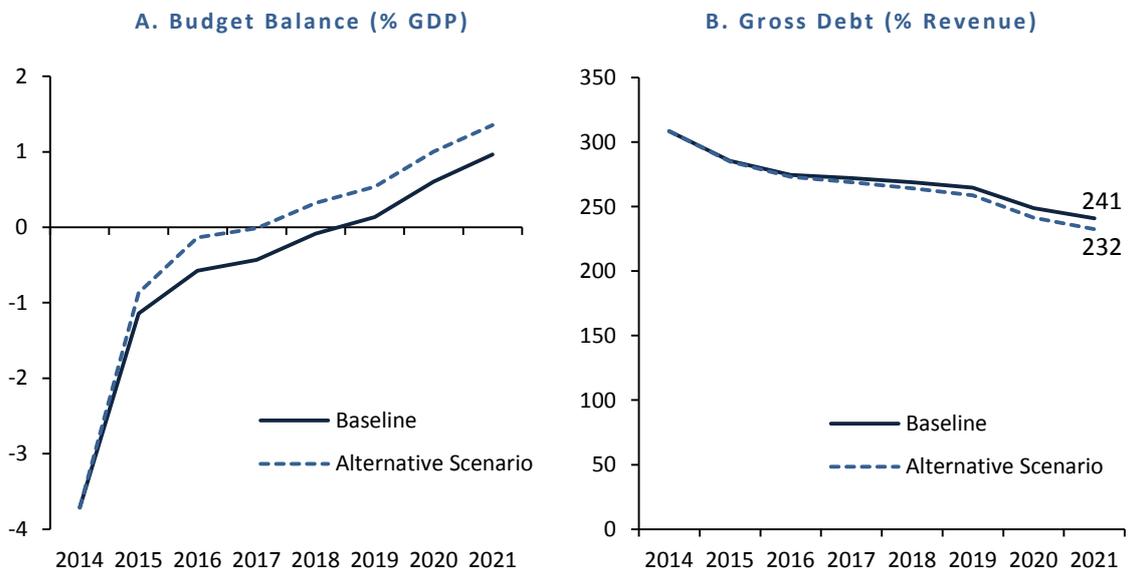
Sources: Department of Finance; and internal IFAC calculations.

<sup>10</sup> Revenue Commissioners noted that the majority of the Corporation Tax over-performance in 2015 was not due to one-off factors, but there was little certainty as to the sustainability of the gains observed at the time. Moreover, there remain concerns about the decision to use unexpected Corporation Tax revenues to increase expenditure given that Corporation Tax represents the most volatile of the main Irish tax heads; is difficult to forecast accurately; is especially concentrated; and is acutely prone to exogenous risk factors such as international tax policy developments (Casey and Hannon, 2016).

As assessed by the Council in recent Fiscal Assessment Reports, a more appropriate policy would have been to use these unexpected funds to reduce the deficit. This would have left the public finances less exposed in the event of future shocks, such as a reversal in Corporation Tax receipts.

The budget would have been already in balance in 2016, had unexpected Corporation Tax revenues and interest savings been used for deficit reduction, rather than to part-fund within-year spending increases in 2015 and 2016. This is roughly two years earlier than now projected by the Government (Figure 1.9). Furthermore, the structural balance would have been brought to its MTO this year (a year earlier than planned), and the debt level would have been estimated to be just over €8 billion lower by 2021 (or €4 billion lower at end-2018, just in advance of the expected conclusion of Brexit negotiations).

**Figure 1.9: Scenario without 2015 and 2016 in-Year Spending Increases**  
 % of Respective Denominator (GDP or Total General Government Revenue)



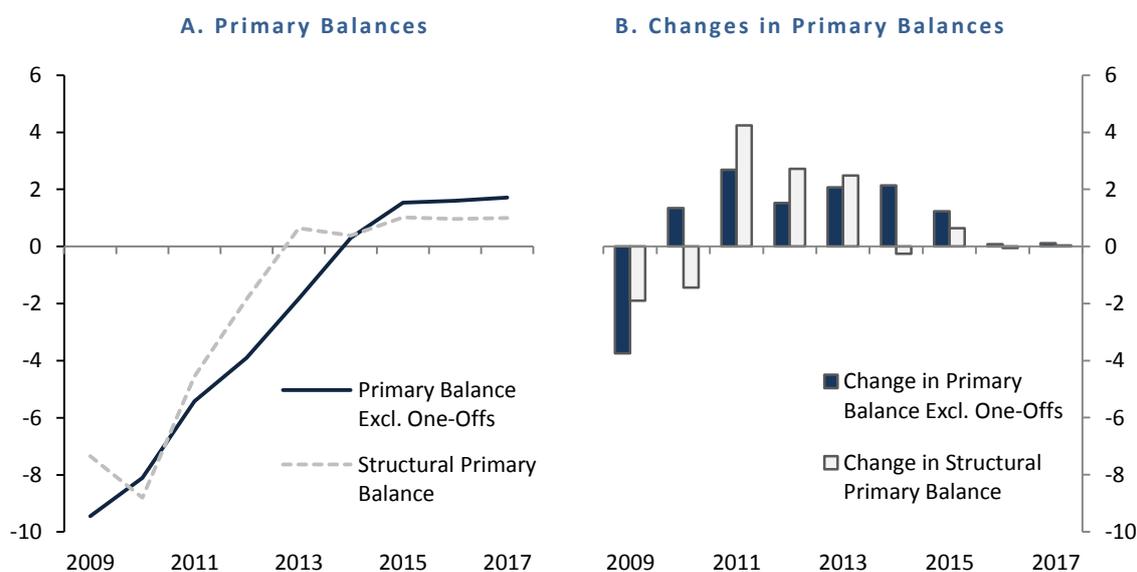
Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: The alternative scenarios depicted show the path for the deficit and debt-to-revenue ratios where the €1 billion (2015) and €0.7 billion (2016) additional in-year expenditure increases were instead used for deficit reduction. The fiscal feedbacks model is a model used by the Council to simulate the effects of alternative assumptions for economic growth, interest rates and paths for discretionary fiscal adjustments. Its key parameters (e.g., its *ex-ante* multiplier assumption and automatic stabiliser coefficients) are consistent with those used by the Department of Finance. The model is described in detail in the September 2012 *Fiscal Assessment Report*.

Using unexpected tax revenues for long-lasting spending increases goes against the spirit of the new budgetary framework, and is especially risky when the source of the additional revenue is Corporation Tax. In addition, this policy response keeps the deficit and debt higher than could have been achieved, and provides an unnecessary stimulus to an already fast-growing economy. Using unexpected revenues to fund permanent increases in expenditure at a time of strong economic growth has worrying echoes of past fiscal policy errors.

Since bringing the deficit to below 3 per cent of GDP in 2015, changes in the underlying primary balance (the budget balance excluding interest expenditure and one-offs) have slowed (Figure 1.10). The measure shows limited improvements after 2015, with these averaging just 0.1 percentage points each year (over 2016 and 2017). The structural primary balance (the same measure with a correction for cyclical developments) suggests that there is no change over the same period. This comes despite government revenue increasing at an annual average rate of 3.2 per cent over the same period.

**Figure 1.10: Primary Balance Improvements Have Slowed**  
% GDP (General Government Basis)



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

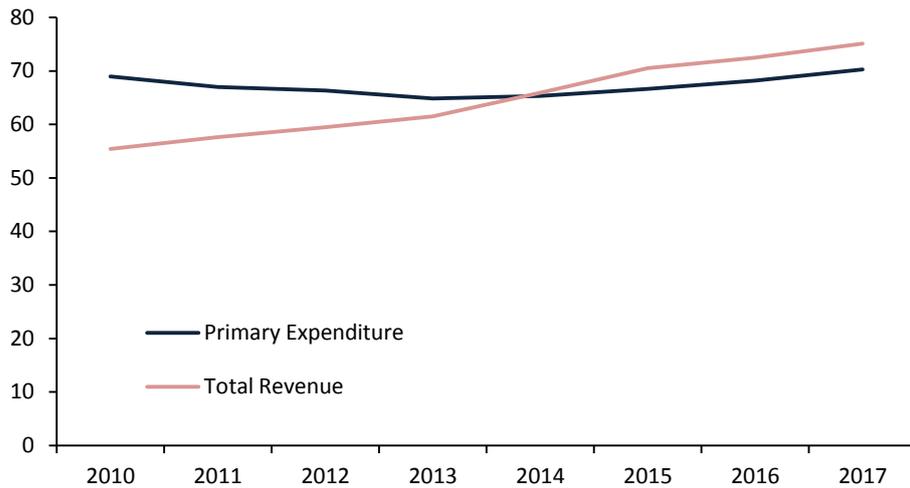
Note: Data are adjusted to exclude one-offs identified by the Department of Finance and assessed as applicable by the Council.

Figure 1.11 shows recent developments in primary expenditure (i.e., total spending less interest costs) and government revenue. One-off items are excluded as before. While primary expenditure fell over the period to 2013, it has begun to rise since 2014 and in more recent years (2016-2017) is likely to rise at a pace just slightly below that of revenue growth (2.8 per cent as compared to 3.2 per cent, when using annual average growth rates, excluding one-offs). This drives the observed slowdown in the changes in the primary balance shown above.

A key safeguard for fiscal policy introduced after the crisis is a system of enhanced fiscal rules. Ireland now falls under the Budgetary Rule requirements of the domestic *FRA* (2012) as well as the EU Preventive Arm. These requirements are intended to guide government debt towards safer levels in a phased manner, while ensuring that government expenditure is sustainably financed by government revenues over the course of the business cycle. This would also assist prudent economic management.

Full compliance with the fiscal rules would allow for moderate increases in spending in 2017 and 2018 while reinforcing the credibility of the government’s ability to achieve its stated objectives.<sup>11</sup> This has additional benefits, in that it can reinforce the government’s creditworthiness, thus helping to insulate the government from pressures related to the cost of borrowing, should an external shock occur in the near future.

**Figure 1.11: Recent Primary Expenditure and Revenue Developments**  
 € Billions, Excluding One-Off Revenue and Expenditure Items



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

Note: Data are adjusted to exclude one-offs identified by the Department of Finance and assessed as applicable by the Council.

As well as being consistent with reducing the deficit and debt to safer levels, strong adherence to the fiscal framework can help avoid repeats of past policy mistakes, including a tendency toward aggravating boom-bust cycles. To avoid undermining the integrity of the new framework, the Council is strongly of the view that the government should aim to fully meet all the rules in 2017 and later years, when the MTO is expected to be exceeded.<sup>12</sup> This would include the Expenditure Benchmark, for which compliance does not have to be assessed as long as the MTO is maintained.

In this context, the Council is concerned about the observed breach of the fiscal rules for 2016 as well as a planned breach for 2017 signalled in *Budget 2017* and *SPU 2017* (discussed in detail in Chapter 4). As 2016 and 2017 are the first two years in which Ireland is subject to the new SGP Preventive Arm and domestic Budgetary Rules, the observed and planned breaches of the fiscal

<sup>11</sup> If additional spending is required, it is allowable under the fiscal rules as long as discretionary revenue-raising measures are introduced to provide sustainable funding for the increases.

<sup>12</sup> According to the reformed *SGP*, stability programmes and convergence programmes present a Medium-Term Objective for the budgetary position. It is set as an objective for the structural balance and is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risks to the sustainability of public finances.

rules – even in cases where these may not be sufficient to trigger potential sanctions – present sources of concern. If repeated, such breaches could leave the public finances more vulnerable to adverse shocks. Incorporating an anticipated breach of the rules into plans also aggravates risks of a significant deviation, given the potential for expenditure overruns or unexpected changes in the inputs and parameters applicable for the rules (e.g., following revisions to input data for the Expenditure Benchmark).<sup>13</sup>

Looking ahead to the period beyond 2018, there is more scope under the rules for fiscal policy to expand spending more in line with the economy’s sustainable pace of growth, while still reducing debt levels at a gradual pace.

#### **1.4 The Medium-Term Fiscal Stance (2019-2021)**

With a structural deficit of 0.5 per cent of GDP – Ireland’s MTO – expected to be achieved in 2018, there is scope for moderate spending growth in the coming years.

Attaining the MTO will mark an important milestone in the recovery from Ireland’s latest fiscal crisis, but the scale of debt still outstanding, and Brexit/US policy-related uncertainties looming suggest that complacency should be avoided. The challenge for Ireland now is to re-build the capacity to withstand future shocks, and ensure that the economy does not overheat, thus avoiding repeats of the policy mistakes that have contributed to multiple economic crises in recent decades.

The fiscal rules present a reasonable framework under which policy could be navigated prudently in future years. Continuing to adhere to the Expenditure Benchmark after the MTO of a 0.5 per cent of GDP structural deficit has been achieved – a position that goes beyond the formal requirements of the SGP – would go some way towards achieving this. Notwithstanding tendencies for the pace of allowable growth in real expenditure net of discretionary revenue measures to exhibit procyclical tendencies (i.e., rising as real GDP growth rises), it would help to limit the risk of cyclical or other transitory revenue gains being used to fund permanent increases in expenditure.

Prudent economic and budgetary management would see a planned expansion in public services over the medium term that is consistent with a reasonably cautious and well-founded view of sustainable trend growth. At the current juncture, the outcome of Brexit negotiations looks set to

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<sup>13</sup> “Significant deviations” are defined in the EU framework as referring to any deviation in structural balance adjustments toward MTO where the deviation is equivalent to at least 0.5 percentage points of GDP in a single year or at least 0.25 percentage points on average per year in two consecutive years. The same thresholds apply for the Expenditure Benchmark (i.e., for deviations in expenditure developments net of discretionary revenue measures impacting on the government balance). When assessed, significant deviations can lead to a Significant Deviation Procedure, which itself can result in sanctions.

weigh on Ireland's trend growth rates, with the Department of Finance viewing a hard Brexit as the most likely scenario. As well as slowing the pace at which the economy can sustainably grow, such an outcome is expected to soften that pace of revenue growth and debt reduction over the medium term.

A prudent view of trend growth is unlikely to be consistent with the CAM-based estimates produced by both the Department of Finance and the European Commission for Ireland. These estimates have a known tendency toward procyclicality (i.e., estimated rates of potential output growth tend to rise as cyclical output growth rises). This was a feature of the pre-crisis period that helped to mask the sustainability of the public finances. It is also unlikely that conventional models will account for any permanent shock to trend growth rates experienced by the Irish economy, were Brexit to be more damaging than currently expected.

One way to mitigate the procyclical tendencies of trend growth estimates would be to simply limit real growth in primary spending (net of discretionary revenue measures) to a more prudent pace than is determined by the fiscal rules by default. This could for example be set as the growth rate to which the economy is expected to converge by the end of the forecast horizon in *SPU 2017* (e.g., to a real GDP growth rate of 2.5 per cent).

Operating fiscal policy over the medium term in this way would see net debt reduced in a phased manner, while steering through an uncertain period for the economy. Future spending reviews (of the kind outlined in Box E) provide an opportunity for the Government to examine existing schemes, in terms of rationale, efficiency and effectiveness, and will enable them to identify both areas of expenditure pressure and areas for potential savings.

The *SPU 2017* plans suggest that growth in real net primary spending will be kept within the above growth rates for the period 2017 to 2021 (averaging 1½ per cent per annum). This is in large part achieved by the assumed non-use of the fiscal space in later years for tax cuts or spending increases. Much of the available fiscal space is to be set aside for a proposed Rainy Day Fund, on the basis of current plans.

### **Rainy Day Fund**

As part of *Budget 2017*, the Minister for Finance announced plans to set aside €1 billion every year from 2018 to a fund reflecting the "need to build up a safety buffer". The Rainy Day Fund should act as a countercyclical buffer and a tool for shock absorption. The Council's *Fiscal Assessment Report June 2016* considers examples of rainy day funds internationally and proposes a countercyclical fund. Coffey (2015) proposes a fund that accumulates by setting aside 5 per cent of

the difference between GDP and GNP annually, based on the rationale that the amount set aside is roughly half of the benefit attained from Corporation Tax revenues paid by multinational enterprises every year.

Due to the high concentration among a small number of multinational enterprises, associated Corporation Tax revenues can be both volatile in the short run and uncertain in the long run. Given the higher volatility and risks associated with this tax head, the Council has repeatedly cautioned against implementing within-year permanent increases to expenditure when facilitated to a large extent by Corporation Tax increases. When any tax receipts display unpredictable and volatile patterns, such as in the case of Corporation Tax, greater caution is warranted. A number of options could mitigate associated risks, including the use of windfall receipts to reduce public debt to safer levels, or diverting receipts to a Rainy Day Fund.

It is important to consider the trade-off implicit in the establishment of such a fund. By investing in the fund, the State will forego alternate uses of the cash: for example, reducing debt and hence lowering national debt interest payments. It will be important to consider the rate of return on the fund in comparison to the interest rate being paid on the national debt.

*SPU 2017* does not outline the details of the operation of the fund, and the rules regarding the Rainy Day Fund's governance should be specified. Any outline should also consider the implementation of safeguards to ensure appropriate use; the criteria for access to the fund's resources; whether amounts to be allocated each year are to be fixed or variable, according to estimated cyclical/windfall revenues; and whether other structural issues (such as for addressing the accrued liability of public service occupational pensions) will also be addressed by this or other funds.<sup>14</sup>

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<sup>14</sup> Box B of the June 2016 Fiscal Assessment Report explores rainy day funds in more detail. The current estimated accrued liability of public service occupational pensions is €98 billion and represents the present value of all expected future payments to current staff and their spouses in respect of service to December 2012, plus the liability for all future payments to current and preserved pensioners and their spouses.

**Table 1.2: Summary of Key Aggregates for the Public Finances in SPU 2017**

% GDP Unless Stated, General Government Basis

	2015	2016	2017	2018	2019	2020	2021
Revenue <sup>1</sup>	27.6	27.3	26.8	26.5	26.2	26.2	26.1
Expenditure <sup>1</sup>	28.7	28.0	27.2	26.6	26.1	25.6	25.1
Balance <sup>1</sup>	-1.1	-0.7	-0.4	-0.1	0.1	0.6	1.0
Interest Expenditure	2.7	2.3	2.1	2.0	1.9	1.7	1.6
Primary Expenditure <sup>1</sup>	26.0	25.7	25.0	24.6	24.2	23.8	23.5
Primary Balance <sup>1</sup>	1.5	1.6	1.7	1.9	2.0	2.3	2.6
Real Expenditure net of DRMs (% change) <sup>2</sup>	2.5	1.6	2.1	1.1	1.2	1.5	1.1
CAM Structural Balance <sup>3</sup>	-1.7	-1.4	-1.1	-0.5	-0.1	0.4	1.0
Change in CAM Structural Balance (pp) <sup>3</sup>	1.9	0.3	0.2	0.6	0.4	0.6	0.6
CAM Structural Primary Balance <sup>3</sup>	1.0	1.0	1.0	1.5	1.7	2.1	2.6
Change in CAM Structural Primary Balance (p.p.) <sup>3</sup>	0.6	-0.1	0.0	0.5	0.3	0.4	0.4
Gross Debt	78.7	75.4	72.9	71.2	69.5	65.2	62.9
Net Debt	67.2	66.0	63.7				
Gross Debt (% Revenue)	285.5	274.6	272.1	268.9	265.0	249.2	241.3
Net Debt (% Revenue)	243.7	240.3	237.7				
Real GDP Growth (% change)	26.3	5.2	4.3	3.7	3.1	2.7	2.5
Nominal GDP Growth (% change)	32.4	3.9	5.5	5.0	4.6	4.4	4.2
CAM Potential Output (% change) <sup>3</sup>	24.8	5.1	4.2	4.3	3.5	3.0	2.8
CAM Output Gap (% potential GDP) <sup>3</sup>	1.1	1.2	1.4	0.8	0.5	0.3	0.0
Expenditure One-offs <sup>1</sup>	-0.8	-0.1	0.0	0.0	0.0	0.0	0.0
Revenue One-offs <sup>1</sup>	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Aggregate One-offs <sup>1</sup>	-0.8	0.1	0.0	0.0	0.0	0.0	0.0

Source: Department of Finance (SPU 2017).

<sup>1</sup> One-offs/temporary measures are as assessed by the Council to be applicable for 2015-2016; Department of Finance one-offs thereafter. These one-offs are removed from variables to get a sense of the underlying fiscal position. The main one-offs assessed by the Council to be applicable include the AIB transaction in 2015 (€2.1 billion); an amount related to the contribution to the EU Budget prompted by GNI revisions for 2016 (€0.17 billion) and the European Financial Stability Facility (EFSF) pre-paid margin in 2016 (€0.55 billion).

<sup>2</sup> This refers to the aggregate modified expenditure aggregate used in the Expenditure Benchmark assessment (Chapter 4). It is net of any Discretionary Revenue Measures (DRMs) introduced relative to previous years, which are the estimated current year impact of any discretionary revenue raising/decreasing measures (e.g., tax increases/cuts). Measures that yield additional (or reduced) revenues allow equivalent excess (or lower) expenditure growth relative to the benchmark rate set by the fiscal rules.

<sup>3</sup> For 2015, the Department of Finance estimates that one-off factors relevant to calculating the change in the structural balance amount to 0.5 per cent of GDP. Rounding may affect totals.

## 2. Endorsement and Assessment of the Macroeconomic Forecasts

### Key Messages

- The Council endorsed the *SPU 2017* macroeconomic forecasts to 2021. Taking into account the uncertainties and judgements involved, it was satisfied that these forecasts were within an endorsable range. The Council welcomes the fact that these forecasts are now consistent with the Government's stated fiscal policy.
- While there is much uncertainty over the exact cyclical position of the economy, it would appear that any remaining negative output gap is small and closing rapidly. Given that the economy is likely to be close to its potential level of output, and relatively strong growth is forecast for the coming years, there is a possibility that overheating will occur in the years ahead, especially if the construction sector responds to persistent supply shortfalls.
- The *SPU 2017* forecasts assume a hard Brexit occurring. Having previously been considered as an adverse scenario, it is now the central scenario envisaged. Despite the assumption of an adverse outcome related to Brexit, downside risks to SPU forecasts remain, as the impact of Brexit is uncertain and may be larger than assumed.
- The main risk to the forecasts comes from the external environment, primarily through the uncertain impact of Brexit and future tax arrangements among Ireland's trading partners. Although the main risks relate to external conditions, there are also important domestic risks. The housing market and the highly concentrated industrial base are the most pertinent. While *SPU 2017* notes that risks surrounding the forecasts are "quite firmly tilted to the downside", the Council assesses that risks to the SPU forecasts are more balanced, including upside risks to GDP in the near term, and overheating risks in the coming years.
- To avoid a repeat of past failures of macroeconomic and budgetary management, it is essential that the Government's forecasts for the medium term are well-founded. This requires a strengthening of the Department of Finance's current toolkit for medium-term macroeconomic forecasting. Signs of overheating may be missed if the Department continues to rely almost entirely on the CAM. A coherent projection for the medium term needs to be fully developed and communicated. The Council welcomes the Department's commitment to develop an alternative to the CAM for medium-term forecasts in the coming 12 months, alongside continuing to produce the CAM estimates to meet legal requirements.

## 2.1 Introduction

The Council's eighth endorsement exercise covers the set of macroeconomic projections in *SPU 2017*. The endorsement exercise includes the full range of forecasts (2017 to 2021). The timeline for the endorsement process is detailed in Appendix B.

To support the endorsement and assessment functions, the Council has continued to develop and update its own suite of models with an expanded set of tools used for both short-term and medium-term forecasting. These are essential for assessing the cyclical position of the economy, as well as for understanding the economy's medium-term supply side potential. Since the previous *Fiscal Assessment Report*, a working paper (Conroy and Casey, 2017) has been published, detailing the methodologies used to produce the benchmark short-term forecasts of the Irish economy used by the Council.

Section 2.2 outlines the endorsement process as it applied to the *SPU 2017* forecasts. Section 2.3 discusses the *SPU 2017* forecasts and puts these in context relative to the forecasts of other agencies. Section 2.4 provides an assessment of the uncertainty and risks surrounding the economic outlook. Three boxes are included: the first (Box B) examines the use of fan charts; the second (Box C) examines potential output, overheating and the Department's commitment to developing an alternative to the CAM for medium-term forecasting; and the third (Box D) considers alternative macroeconomic indicators in light of the 2015 National Accounts.

## 2.2 Endorsement of the SPU 2017 Projections

This section details the eighth endorsement exercise undertaken by the Council covering *SPU 2017*, outlining the Council's considerations around the time of the endorsement, and the process itself (Appendix B details the timeline). Data available at that time may differ from that available for the purposes of this assessment. In a welcome change from the previous approach, the Department's assumptions for government consumption are on an *ex-post* basis, assuming that all of the fiscal space estimated to be available is used throughout the forecast period, in line with the government's stated fiscal policy.

The Council endorsed the *SPU 2017* macroeconomic projections to 2021. It was satisfied that the central scenario outlined was within its endorsable range, taking into account the methodology and the plausibility of the judgements made. The endorsement process focuses on three key dimensions: the plausibility of the methodology used; the pattern of recent forecast errors; and comparisons with the Council's Benchmark projections and other projections.<sup>15</sup>

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<sup>15</sup> The IFAC Benchmark projections are prepared by the Secretariat for the endorsement exercise (see Appendix A).

First, focusing on the methodology used by the Department of Finance, the Council is satisfied that short-term projections broadly conform to standards set by other forecasting agencies. The Department provides information on models and judgement used in the development of its forecasts for assessment by the Council. In relation to medium-term projections, both the Council and the Department have noted that the CAM is unsuitable for Ireland. While judging the methodology itself to be unsuitable, the correct application of the CAM was verified by the Council. In the endorsement letter to the Secretary General, the Council welcomed the commitment of the Department to develop an alternative to the CAM for medium-term forecasts in the coming 12 months. Developing alternative models is needed to provide a better assessment of the risk of overheating and medium-term prospects. The Council notes that future endorsement of the forecasts will be at risk if sufficient progress is not achieved in providing a better basis for the Department's view of medium-term growth prospects.

Second, in terms of the pattern of errors in Department of Finance forecasts, the Council has in the past emphasised some evidence of systematic bias related to the domestic and external split of aggregate demand. As detailed in recent *Fiscal Assessment Reports*, the previously observed bias is no longer apparent. The Council will continue to monitor the composition of the forecasts and accuracy for forecasts for different components of demand.

Third, comparisons with the full set of Benchmark projections (Appendix A) showed some deviation from the Department's forecasts in 2017, with smaller differences in the later years. The Department's estimates for growth were assessed to be within an endorsable range, despite being lower than the IFAC Benchmark projections for 2017. This mainly reflects the Council's greater emphasis on the use of information from quarterly data, which – although subject to large revisions – have been shown empirically to be an unbiased predictor of estimates for the same period. The lower weight the Department places on the quarterly information, when taken at face value, implies an unexpected path of quarter-on-quarter growth rates which is not explained (see section 2.3.2). While the Department's forecasts were well below the Council's Benchmarks, they were towards the upper range of consensus forecasts available at the time. In terms of composition, the Council's Benchmark projections suggest a larger contribution to growth from domestic demand from 2019-2021, than the forecasts of the Department of Finance, leading to a somewhat higher forecast of overall growth.

## **2.3 An Assessment of the Macroeconomic Forecasts in SPU 2017**

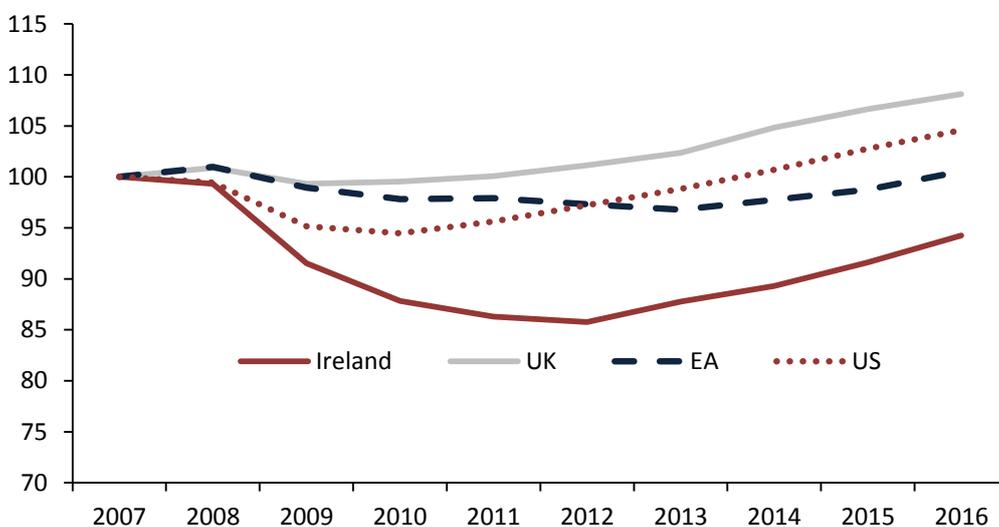
### **2.3.1 Macroeconomic Context**

Initial estimates suggest that the impressive recent growth performance of the Irish economy continued in 2016, with growth estimated at 5.2 per cent (GDP) and 9.0 per cent (GNP). While

there is some uncertainty over what measures of activity should be used (Box D explores some of these), it is clear that there has been a rapid recovery in the Irish economy in recent times. Looking at net national product for example, which should provide a better reflection of what is happening in the domestic economy, it can be seen that there has been growth in excess of 6 per cent in 2013, 2014 and 2015. Looking beyond National Accounts metrics, employment is a reliable indicator of the progress of the economy, and there has been growth averaging 2.4 per cent for the past four years. The speed of this recovery compares favourably to international comparators, albeit coming from a more severe downturn. Figure 2.1 shows employment in Ireland, US, UK and the Euro Area since the peak (2007).

**Figure 2.1: Employment Developments, International Comparison**

Index (2007 = 100)



Source: Eurostat; CSO; US Bureau of Labor Statistics; and Internal IFAC calculations.

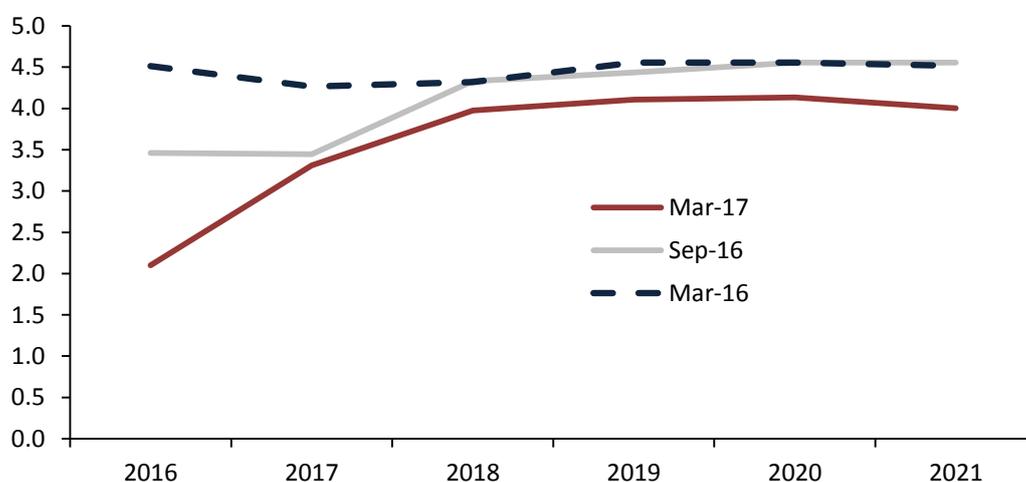
Previous *Fiscal Assessment Reports* have noted the role played by favourable external conditions in driving much of the recovery in the Irish economy from 2012-2015. Last year saw less favourable external conditions, with the sharp appreciation of the Euro against sterling and slower growth in trading partners. Offsetting this to a lesser extent, oil prices continued to fall and monetary policy remained accommodative. Despite external conditions being broadly less favourable, underlying net exports (this excludes imported aircraft and intangible assets) still made a strong contribution to growth in 2016. In the aftermath of the UK's vote to leave the EU, and developments in the US, future external conditions look both more uncertain and more unfavourable than previously assumed. While the UK economy has performed better than expected in the immediate aftermath of the referendum on leaving the EU, forecasts of future growth have been revised down.

Figure 2.2 shows how IFAC estimates of external demand have been revised down over the past year. The most optimistic projections came prior to the UK referendum on EU membership (March 2016). The two more recent sets of projections show weaker external demand growth in the

medium term. More generally, global trade growth was weak and in 2016 trade growth was below that of GDP growth, which is highly unusual. The World Trade Organisation (2017) is forecasting a modest increase in trade growth for 2017 and 2018.

Looking at the high frequency indicators available so far this year, a mixed picture emerges. For the first quarter, core retail sales have been quite positive and industrial production in the traditional sector is up 2.8 per cent compared to last year. Tax returns also give an indication of activity and demand, with many of the major headings only marginally above last year’s values. Tax revenue for the first four months is only 0.5 per cent higher than for the same period last year, which is weaker than expected.

**Figure 2.2: Vintages of External Demand Growth Projections**  
% Change (Year-on-Year)



Sources: Internal IFAC calculations; and IMF and European Commission forecasts for trading partners.  
Note: External demand is calculated as a trade weighted average of forecast import growth in Ireland's export markets. This variable is used as an input into the Council's Benchmark models of exports.

### 2.3.2 SPU 2017 Short-Term Forecasts, 2017-2018

The SPU 2017 forecasts project that last year’s strong **personal consumption** growth is expected to continue in 2017 and 2018 (see Table 2.1 for a summary of SPU 2017 forecasts). As has been the case in recent years, growth in consumer spending is forecast to be driven mainly by goods consumption. Given the recent strong momentum in employment and income, the forecasts of the Department appear reasonable. In addition, given the pattern of revisions in previous years, there may be upward revisions to recent quarters, which would bring services consumption into closer alignment with the employment and income data seen last year. The high-frequency data on retail sales are broadly supportive of a positive outlook, particularly when the softer motor trade data are excluded.

**Table 2.1: SPU 2017 Macroeconomic Forecasts (to 2018)**

Percentage Change in Volumes Unless Otherwise Stated

	2015*	2016*	2017**	2018**
GDP	26.3	5.2	4.3	3.7
GDP Deflator	4.9	-1.2	1.2	1.3
Nominal GDP	32.4	3.9	5.5	5.0
GNP	18.7	9.0	4.2	3.5
Personal Consumption	4.5	3.0	2.8	2.7
Investment	32.7	45.5	-17.1	5.4
Government Expenditure on Goods and Services	1.1	5.3	2.6	2.1
Exports	34.4	2.4	5.0	5.1
Imports	21.7	10.3	-2.0	5.3
Stock Changes (pp contribution)	-0.8	0.3	0.0	0.0
Current Account (% of GDP)	10.2	4.7	10.9	10.4
Employment	2.6	2.9	2.7	2.4
Unemployment Rate	9.4	7.9	6.4	5.8
Inflation (HICP)	0.0	-0.2	0.6	1.2
Nominal GDP (€ billions)	255.8	265.8	280.6	294.7

Sources: CSO and SPU 2017. \* Denotes latest outturns. \*\* Denotes SPU 2017 forecasts.

Recent data on headline **investment** growth have been subject to large movements related to intangible assets. While headline investment grew by 33 per cent in 2015, most of this was driven by investment in intangibles.<sup>16</sup> A similar story appears to have developed in 2016, with big increases in the last quarter of 2016 linked to investment in intangibles.<sup>17</sup> Given that firms may continue to adjust to the changing worldwide Corporation Tax regime, it is possible that there could be further investment in intangible assets in the future.<sup>18</sup>

Underlying investment appeared to grow much more modestly last year, mainly due to weaker underlying machinery and equipment.<sup>19</sup> SPU 2017 forecasts that underlying investment will grow by just under 10 per cent in both 2017 and 2018. This strong growth is forecast to be driven mainly by the building and construction sector, albeit from a low base. Estimates of the number of housing completions needed to meet demand, due to demographics and new household formation, vary, but all point towards a significant recent shortfall in completions. This is likely to lead to significant

<sup>16</sup> It would seem that outright purchases of R&D assets played a more significant role in the increase in intangibles investment for 2016 relative to 2015.

<sup>17</sup> The exact quantity cannot be confirmed, however, as parts of the Q4 2016 investment data have been redacted by the CSO for confidentiality reasons.

<sup>18</sup> While such activity would lead to higher levels of recorded investment, it would also increase imports, hence having no impact of GDP.

<sup>19</sup> Underlying machinery and equipment excludes investment in aircraft, which are imported and hence GDP neutral.

pent-up demand.<sup>20</sup> Given that there has been a limited supply response so far, some structural factors may be hindering supply.<sup>21</sup> If these factors were to ease, there could be a rapid pickup in completions. Previous studies have estimated that an additional 10,000 completions would add one percentage point to GNP growth (see Duffy, 2005 and Bergin *et al.*, 2013). *SPU 2017* forecasts a steady, modest increase in completions of around 3,000 each year out to 2021, when completions are forecast to reach 30,000 per annum. If completions were to increase more rapidly than this, to meet pent-up demand, then there would be higher output growth, in line with estimates cited above.

While there is uncertainty over the level of completions required to keep up with demand, there is also uncertainty surrounding the actual level of completions. Recently released Census data show that the housing stock increased by only 8,800 over the period 2011-2016. By contrast, data on completions from the Department of Housing indicate that there were over 50,000 housing completions for the same period (Appendix Figure AC.4H), which depending on the assumed rate of obsolescence, could imply a much bigger increase in the housing stock. While these data are attempting to capture housing completions, they in fact record the number of units being connected to the electricity network. Since some vacant properties have recently been reconnected to the grid, these figures on completions may not correspond to additions to the housing stock. This would have implications for the extent to which any recent shortfall in supply relative to demand might contribute to the emergence of supply pressures in future years.

In previous *Fiscal Assessment Reports*, the underlying investment to GDP or GNP ratio was examined as a yardstick for current investment levels, relative to historical standards. Using GDP or GNP is less informative, due to the developments that led to the step change in the National Accounts for 2015. With this in mind, Figure 2.3 shows underlying investment as a percentage of underlying domestic demand. When using this denominator, the Department of Finance forecasts indicate that underlying investment will be just above its historical average at the end of the forecast horizon.

**Government consumption** grew faster than expected last year, with growth of 5.3 per cent. *SPU 2017* forecasts slower growth in 2017 (2.6 per cent) and 2018 (2.1 per cent). In contrast to previous publications, *SPU 2017* forecasts are consistent with use of the estimated fiscal space for the

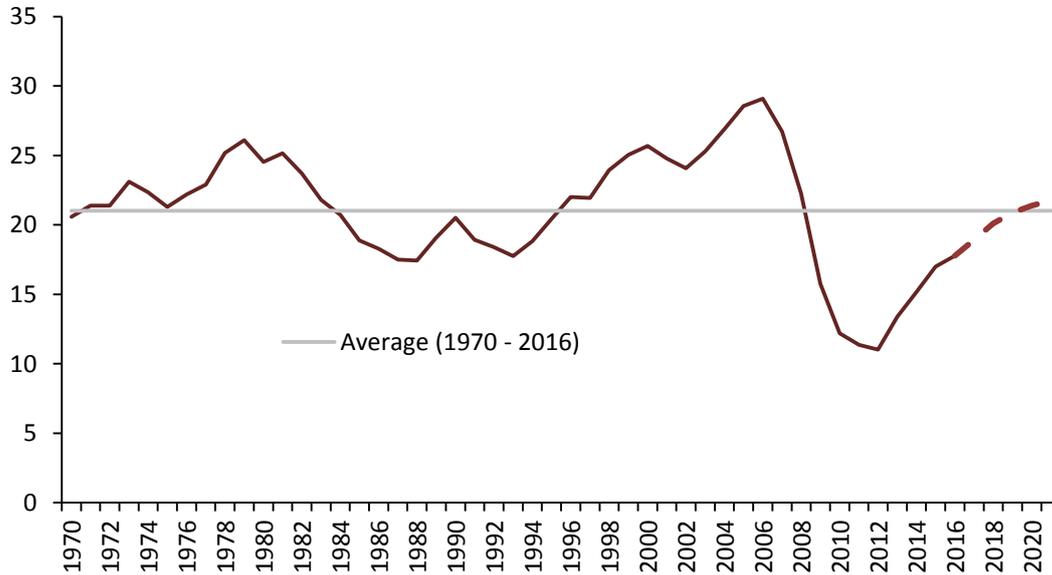
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<sup>20</sup> Lyons (2017) estimates of 50,000 are much higher than the 30,000 in Duffy *et al.* (2016). These higher estimates reflect different assumptions for obsolescence and demographics.

<sup>21</sup> While prices remain well below pre-crisis peaks, costs have not fallen substantially, which may be preventing a large scale response also (see Appendix C).

forecast period, in line with the government’s stated intentions, resulting in faster growth in the later years of the forecast, compared to the figures published in *Budget 2017*.

**Figure 2.3: Underlying Investment**  
Percentage of Underlying Domestic Demand



Sources: CSO, *SPU 2017*; and Internal IFAC calculations.

Note: Both underlying measures exclude investment in aircraft and intangibles. While there are no data on investment in these two items prior to 1997, they are likely to be small and are assumed to be zero here for illustrative purposes. The dashed line represents *SPU 2017* forecasts.

Forecasting **exports** has proven difficult in recent times. Goods exports recorded in the National Accounts have diverged substantially from those recorded in the trade data in recent years, largely due to developments around contract manufacturing. In 2015, the value of goods exports in the National Accounts rose by 71 per cent, while those recorded in the monthly trade data increased by 21 per cent.<sup>22</sup> In 2016, by contrast, goods exports in the National Accounts declined (-4.8 per cent), while the trade data showed growth of 4.6 per cent. The forecasts in *SPU 2017* are for exports to grow somewhat faster than external demand, due to compositional effects. This is because of Irish exports being concentrated in high growth sectors.

The outlook for external demand for Irish exports is now both more uncertain and less positive, primarily due to Brexit (Figure 2.2). There was a substantial appreciation of the euro against sterling in the second half of last year, which looks set to carry over into this year. **Import** growth is also set to slow significantly in the Department’s projections, albeit that figures for 2016 and 2017

<sup>22</sup> Both are in nominal terms. While there has often been a substantial gap between goods exports in the National Accounts and those recorded in the merchandise trade data, up until recently these differences had been broadly GDP neutral, as there had been corresponding increases in imports of royalties (see Box A, IFAC (2016b)). However, following the on-shoring of many of the intellectual properties underpinning these imports of royalties, the associated export activities are no longer being affected in the main.

are distorted by the changes in investment in intangible assets, which are assumed to be imported.<sup>23</sup>

*SPU 2017* forecasts real **GDP** growth of 4.3 per cent this year, followed by a 3.7 per cent expansion in 2018. The carryover into 2017 now stands at a substantial 4 per cent, reflecting the strong quarter-on-quarter growth recorded in the second half of last year. The carryover for 2017 refers to the growth rate that would be observed in 2017 if seasonally adjusted real GDP remained unchanged at its Q4 2016 level for all four quarters of this year. It appears that the Department is placing little or no weight on the information contained in the most recent quarterly GDP data, particularly for GDP itself. The question of how much weight to place on the quarterly data is an empirical one. While the quarterly data are highly volatile (Conroy, 2015) and heavily revised, the direction of such revisions is not found to be biased in any one direction over time (Casey and Smyth, 2016). While trade components are prone to substantial revisions, domestic expenditure components are typically more stable (especially when intangibles and aircraft imports are removed from investment).

Taken at face value, the *SPU 2017* forecasts imply that an average quarter-on-quarter growth rate of only 0.1 per cent would be needed this year to be consistent with the Department's 4.3 per cent forecast for annual GDP growth in 2017, given the large carryover effect from 2016 (Table 2.2). Conversely, the forecasts imply strong quarter-on-quarter growth in 2018 (+1.4 per cent on average) to achieve the 3.7 per cent annual growth forecast in *SPU 2017*. Despite the Quarterly National Accounts being highly volatile, it seems unlikely that there would be such a dramatic change in the quarterly pace of growth. Assuming that the 2016 quarterly data remain unchanged, then even moderate quarter-on-quarter growth would lead to strong annual growth in 2017 (Table 2.3).

**Table 2.2: Average Quarter-on-Quarter Growth Rates for Each Year Implied by Annual Estimates**

	2014	2015	2016	2017	2018
<i>SPU 2017</i>	2.5	6.6	1.6	0.1	1.4

Source: CSO, *SPU 2017* and Internal IFAC calculations.

Notes: 2014, 2015 and 2016 figures refer to the average quarter on quarter growth rate in those years. 2017 refers to the growth rate required to achieve the 4.3 per cent growth forecast in *SPU 2017*. The 2018 figure refers to the average quarter-on-quarter growth needed to achieve the *SPU 2017* forecast of 3.7 per cent growth.

<sup>23</sup> The Department assumes that investment/imports of intangible assets revert to closer to 2015 levels, implying a 37 per cent decline. Underlying imports (excluding aircraft and intangible assets) are forecast to grow by over 5 per cent in 2017.

**Table 2.3: Range of Annual GDP Growth Rates for 2017 for Different Quarterly Growth Rates.**

Quarter-on-Quarter Growth	Annual 2017 Growth
0.0	4.0
0.1	4.3
0.5	5.3
0.7	5.8
1.0	6.6
1.5	8.0

Source: CSO and Internal IFAC calculations.

Real **GNP** growth is forecast to be similar to real GDP growth, with a 4.2 per cent growth forecast for this year and a 3.5 per cent in 2018. This reflects the assumption that net factor flows are forecast to grow at similar rates to GDP.

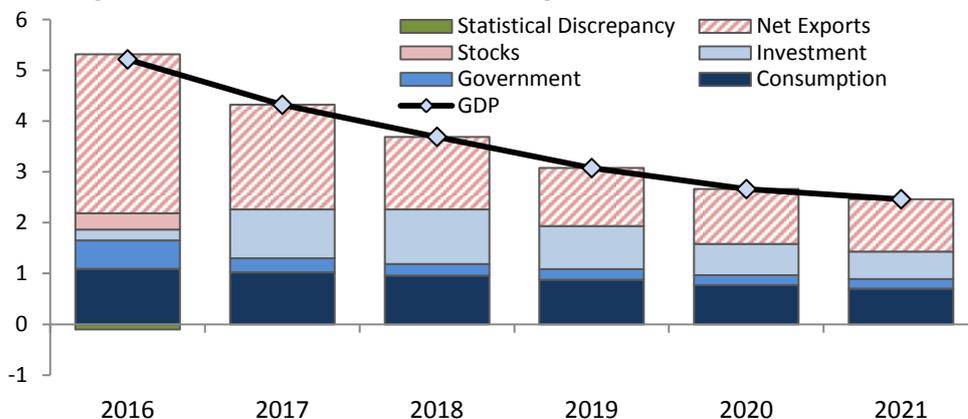
The **GDP deflator** saw negative growth in 2016, primarily driven by terms of trade effects. These effects were mainly because of the appreciation of the euro, most dramatically against sterling in the second half of the year. With limited exchange rate movements assumed for this year and beyond, the deflator is driven primarily by domestic elements in the forecast, with consumption making the largest contribution.

### 2.3.3 Analysis of Contributions to Growth in SPU 2017 Forecasts

Figure 2.4 shows the underlying contributions to GDP growth in *SPU 2017*. For 2017, growth is forecast to be driven by underlying net exports along with personal consumption and underlying investment, with government consumption making a smaller contribution. The declining growth rates thereafter are due to steadily declining contributions from both underlying net exports and underlying domestic demand. This reflects a deteriorating external environment, largely due to the assumed impact of Brexit, and weaker underlying investment.

**Figure 2.4: SPU 2017 Underlying Contributions**

Percentage Point Contributions to Real GDP growth



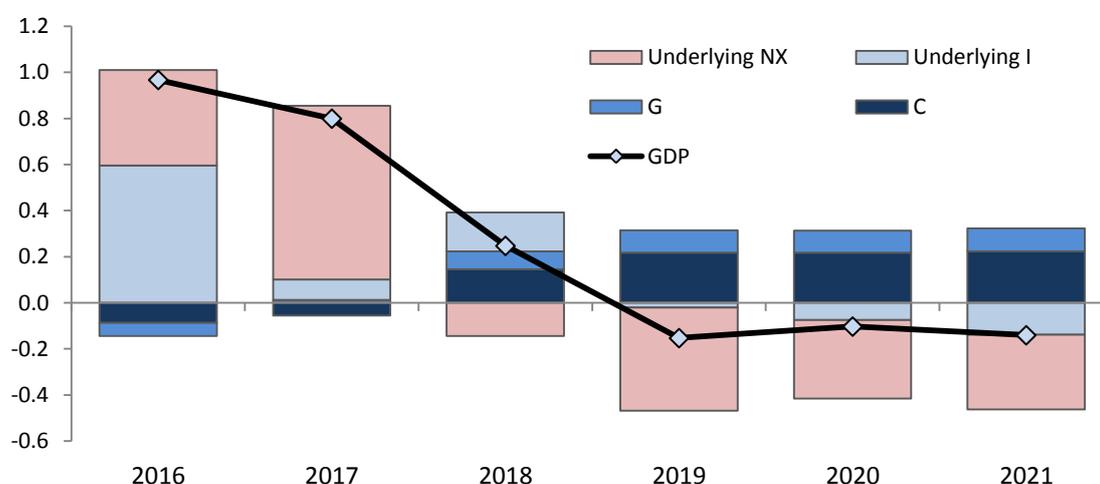
Sources: Department of Finance; CSO; and internal IFAC calculations.

Note: Underlying investment and net exports strip out intangibles and aircraft purchases in full as these are, in the main, imported, with little impact on real GDP.

Figure 2.5 examines the revisions to the forecasts of these underlying contributions since *Budget 2017*. There are large forecast revisions for this year, with the contribution from underlying net exports revised up, leading to stronger growth. From 2018 on, the contribution from underlying net exports has been revised down, reflecting the fact that the external environment is expected to be less favourable. Stronger domestic demand contributions in the outer years are driven by the Department’s move to presenting forecasts on an *ex-post* basis, which assumes the available fiscal space is fully utilised. This leads to stronger government consumption and disposable income, with the result that personal consumption is also revised up.

**Figure 2.5: Changes in the Underlying Contributions to GDP Growth: *SPU 2017 vs Budget 2017***

Percentage Point Contributions, *SPU 2017* Forecasts Less *Budget 2017* Forecasts



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

Note: Underlying investment and net exports strip out intangibles and aircraft purchases in full as these are, in the main, imported, with little impact on real GDP. NX = Net Exports, I = Investment, G = Government expenditure on goods and services, C = Personal consumption on goods and services.

### Box B: Fan Charts for Components of GDP and Employment

This Box examines the use of fan charts to show the uncertainty surrounding forecasts for different parts of the Irish economy. Fan charts can be a useful tool for graphically representing the magnitude of historical forecast errors. While previous *Fiscal Assessment Reports* (IFAC, 2012b) have outlined the use of fan charts for forecasts of GDP, this Box highlights the use of these charts for employment, personal consumption, investment and government consumption.<sup>24</sup>

While there is uncertainty around forecasts of current and future levels of a series, there is also some uncertainty around the historical values given that substantial revisions can often occur (Casey and Smyth, 2016). With this in mind, there are fans surrounding the historical data as well as the forecasts for future periods, as there is still some uncertainty

<sup>24</sup> Ideally one would examine underlying investment (i.e., excluding aircraft and intangible assets); however, historical forecasts have not been made on an underlying basis, therefore historical forecast errors cannot be calculated on an underlying basis.

around the eventual outturns.

Various methodologies can be used in constructing fan charts. The approach taken here is to examine previous forecast errors at different time horizons. Using errors from actual forecasts is the standard approach (Office for Budget Responsibility, 2011), in part because of the reliance on judgement in making macroeconomic forecasts, rather than the mechanical use of macroeconomic models. This standard approach assumes that the probability distribution around the central forecast remains constant over time.

If forecast errors have been larger (in absolute terms, on average) at a particular horizon, then the fans will be wider, representing the larger range of likely outcomes. The forecast errors that are used are those from previous SPU and Budget publications. Using forecasts going back to 2000, the Root Mean Squared Error (RMSE) can be calculated not just for GDP, but for other parts of the forecast. Fan charts have been constructed for employment, personal consumption, investment and government consumption. The largest errors are found to be for investment, which has often been noted to be difficult to forecast and this is also the case in Ireland (Bergin *et al.*, 2013 and Conroy and Casey, 2017).<sup>25</sup> As investment has the largest errors, it has the widest fans surrounding the central forecast, reflecting the elevated level of uncertainty associated with the forecast. However, from examining the charts, it is clear that there is also considerable uncertainty surrounding forecasts of government consumption and to a lesser extent, personal consumption. Historical forecast errors for employment growth are lowest of all, as reflected by the narrower fans around the central forecast.

A sample has to be chosen over which to calculate average forecast errors. Both 2008 and 2009 are excluded, as these financial crisis years have forecast errors well above would levels expected in normal times. This approach is in line with that taken in producing the fan charts of GDP.<sup>26</sup> The central forecasts on which the fan charts are built are those taken from *SPU 2017*. The point estimates given in the SPU are taken as the median forecast.

Two simplifying assumptions are used. The forecast distribution is assumed to be symmetric, with the point forecast representing the median (and mean and mode). This assumption is mechanical and should not necessarily be taken to imply that the Council judges risks to be symmetric. It is further assumed that errors follow a normal distribution, though over a sufficiently long sample period, this assumption may be inappropriate, e.g., extreme events may be more common (fat tails).<sup>27</sup> The fan charts constructed in this report are shown only between the 10th and 90th percentiles because of the difficulty of accurately representing relatively rare and extreme events, based on a limited time span.

Like the fan charts produced for aggregate GDP, the additional fan charts presented here form only one aspect of the endorsement process. In keeping with this, there is no specific range in the fan chart that is deemed to be an “endorsable range”. A number of other considerations are made when deciding whether or not to endorse a set of macroeconomic projections from the Department of Finance. These include an assessment of the methodologies employed by the Department and any patterns in recent forecast errors.

Two example fan charts which have *SPU 2017* projections as the central scenario are shown below, while further fan charts and a table detailing the root mean squared errors are given

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<sup>25</sup> In addition to the normal difficulties of modelling investment in a small open economy, the Irish data now presents additional complications presented by investment in intangible assets and aircraft which are almost exclusively imported (as documented in Box C IFAC (2016)) and are often driven by firm specific factors.

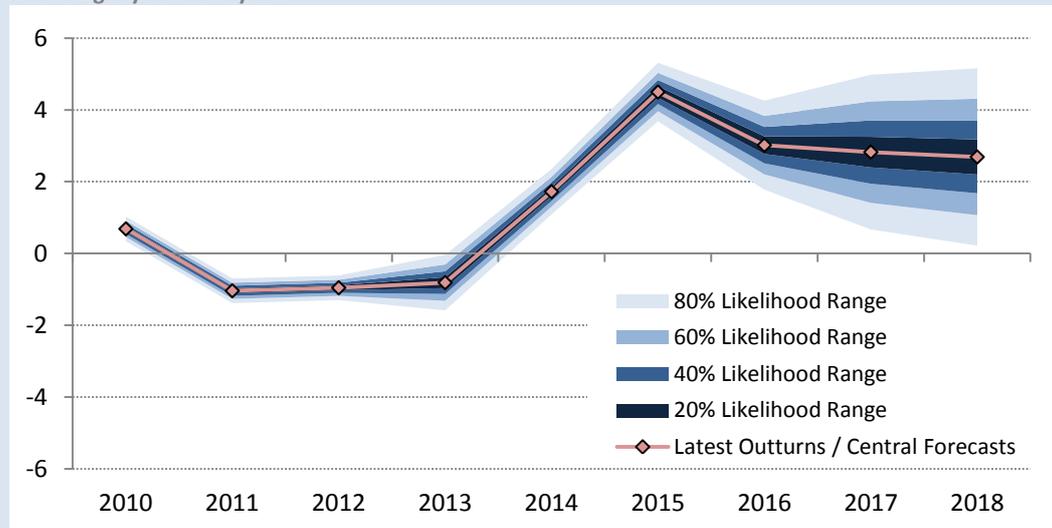
<sup>26</sup> See Annex A of IFAC (2012) for details of the methodology employed.

<sup>27</sup> Given recent economic history in Ireland, this is quite a strong assumption.

in Appendix D.

**Figure B.1: Real Consumption Fan Chart**

% change year-on-year

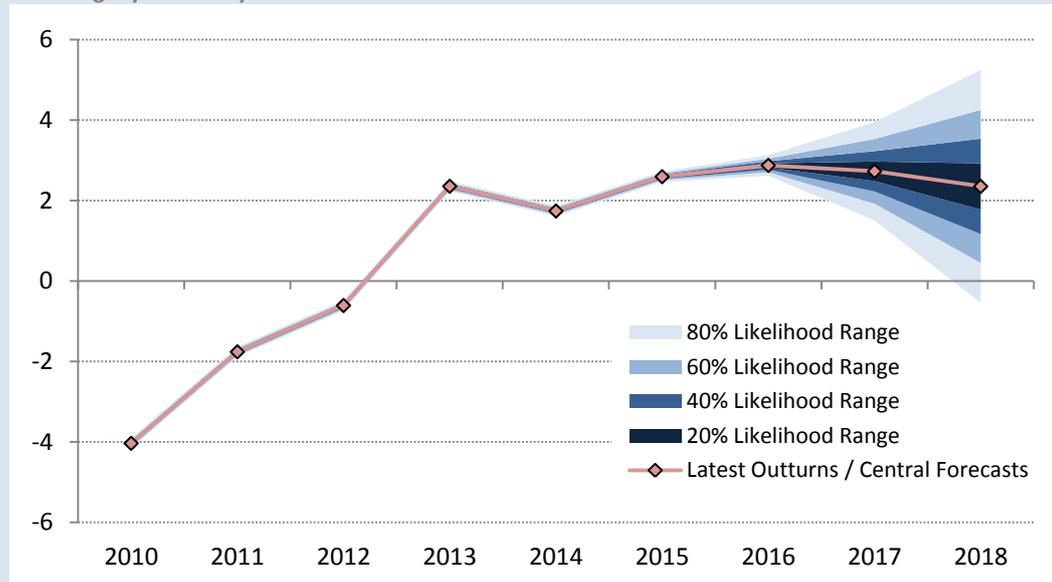


Sources: SPU 2017; and Internal IFAC calculations.

Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to real consumption data. Forecast errors based on 2000-07; 2010-15 sample.

**Figure B.2: Employment Fan Chart**

% change year-on-year



Sources: SPU 2017; and Internal IFAC calculations.

Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to employment data. Forecast errors based on 2000-07; 2010-15 sample.

### 2.3.4 SPU 2017 Medium-Term Forecasts, 2019-2021

While there have been relatively limited revisions to estimates of potential output growth and the output gap in SPU 2017 relative to Budget 2017 (Figure 2.6 and Table 2.4), CAM-based forecasts of

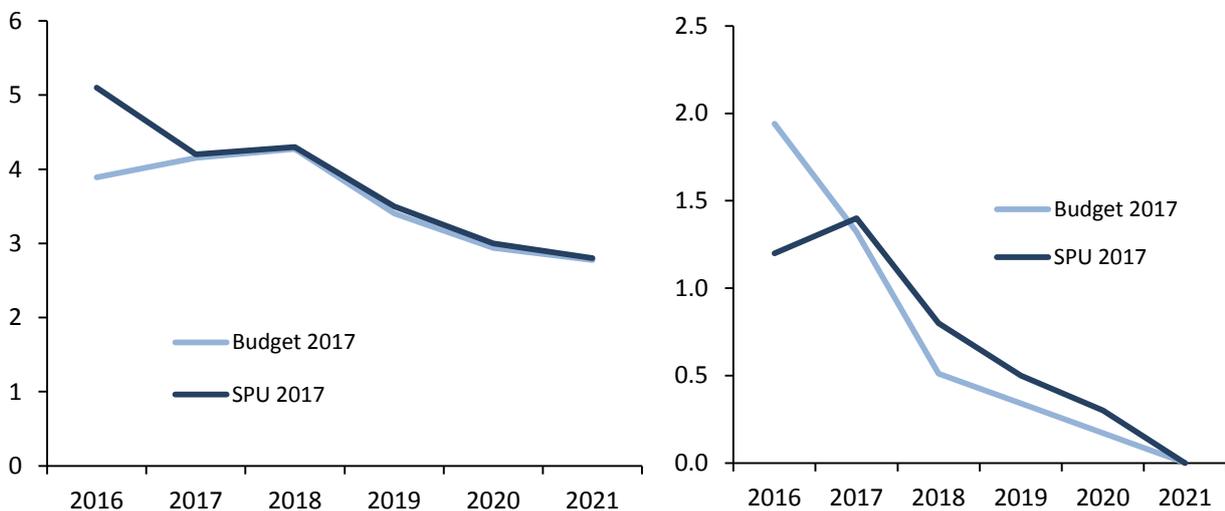
potential output for 2016 have been revised up by a full percentage point. This is mainly due to the increased level of investment (specifically intellectual property) which occurred very late in 2016. While this investment may well have increased the capital stock and hence the productive capacity of the Irish economy, it seems unlikely that this impact would be in 2016, given the timing of these investments. While these estimates are similar to those published in October, it is worth examining the plausibility of the estimates of potential output growth and the output gap as they now stand.<sup>28</sup>

A positive output gap (1.4pp) is estimated for 2017, gradually falling to zero in 2021. Looking at a range of imbalance indicators and alternative models of potential output, it seems unlikely that there is overheating in the Irish economy as suggested by this positive output gap (see Chapter 1 for IFAC’s range of estimates for the output gap). A more plausible path for the output gap would be that it is closed or slightly negative this year, with overheating a possibility in future years, if the recent strong growth were to continue (this is discussed in greater detail in Box C). A key feature commonly applied under the CAM is mechanical closure of the output gap over the medium term, such that estimates, by construction, would not show a non-zero output gap at the end of the forecast period. There may, however, be legitimate reasons to believe that a non-zero output gap could emerge or persist over the medium term.

**Figure 2.6: Vintages of Medium-Term Projections**

**A. Potential Output Growth (% Year-on-Year)**

**B. Output Gap (%)**



Sources: SPU 2017, Budget 2017; and internal IFAC calculations.

<sup>28</sup> As was noted in the November 2016 *Fiscal Assessment Report* (Appendix D, “Changes to potential output following 26% GDP growth in 2015”), the extraordinary growth recorded in 2015 is largely being treated as structural in order to keep the output gap relatively unchanged.

Despite being the official methodology for fiscal surveillance by the European Commission, the CAM has many important drawbacks for fiscal/macro surveillance.<sup>29</sup> These have been highlighted in previous *Fiscal Assessment Reports* and by the Department of Finance itself since at least 2003 (Department of Finance, 2003). As a result of this, previous *Fiscal Assessment Reports* have highlighted the need for complementary supply side methodologies to be developed by the Department, rather than relying on it almost exclusively for projection purposes. Further progress in developing and reporting alternatives to the CAM is necessary to improve the quality of the Department's supply-side forecasts. The Council welcomes the Department's commitment to develop an alternative to the CAM for medium-term forecasts in the coming 12 months, alongside continuing to produce the CAM estimates to meet legal requirements.

**Table 2.4: Medium-Term Demand and Supply-Side Forecasts**

Percentage Change Unless Otherwise Stated

		2016	2017	2018	2019	2020	2021
SPU 2017	Real GDP Growth	5.2	4.3	3.7	3.1	2.7	2.5
	Nominal GDP Growth	3.9	5.5	5.0	4.6	4.4	4.2
	Potential GDP Growth	5.1	4.2	4.3	3.5	3.0	2.8
	Output Gap (% Potential GDP)	1.2	1.4	0.8	0.5	0.3	0.0
Budget 2017	Real GDP Growth	4.2	3.5	3.4	3.2	2.8	2.6
	Nominal GDP Growth	2.8	4.5	4.6	4.5	4.2	4.1
	Potential GDP Growth	3.9	4.2	4.3	3.4	2.9	2.8
	Output Gap (% Potential GDP)	1.9	1.3	0.5	0.3	0.2	0.0

Source: Department of Finance.

Notes: The forecasts for *SPU 2017* are now on an *ex-post* basis, assuming full use of the available fiscal space.

While the medium-term outlook for overall GDP growth is within a plausible range, it is worth examining the balance of growth between domestic demand and net exports. Table 2.5 shows that the declining growth rates are driven mainly by falling contributions from underlying net exports. This reflects both some erosion in competitiveness as the labour market tightens and as external conditions deteriorate. Domestic demand makes the bulk of the contributions to growth in the outer years, with consumption and investment mainly responsible.

The deterioration in external conditions referenced above relates mainly to the assumed impact of Brexit. The Department is now assuming a hard Brexit, where a World Trade Organisation-based tariff regime comes into effect from 2019. This would previously have been considered a downside risk to forecasts, whereas it is now the baseline scenario. The medium term impact from a hard Brexit is informed by estimates from the COSMO model (Bergin *et al.*, 2016). The use of explicit model-based estimates to inform the forecasts of the impact of Brexit under clear assumptions is welcome. However, one risk is that COSMO estimates assume that the impact on the Irish labour

<sup>29</sup> For example, mechanical closure ensures that CAM estimates never show an output gap at the end of the forecast period, meaning potential overheating in future years is never identified.

market from a shock to UK output is equivalent to a shock to an average trading partner. However, it would appear more likely that UK-destined exports would have a much higher labour intensity than Irish exports in general, given that these tend to be in the more labour-intensive traditional sector and therefore these estimates may underestimate the medium-term impact of the hard Brexit shock. In addition, while model-based estimates tend to show the economy gradually adjusting to the shock and reaching a new steady state level, it may be more likely in this case that the impact of such a shock would be more sudden. In particular, the approach does not assume a further weakening in the sterling exchange rate.<sup>30</sup>

**Table 2.5: Real GDP Growth Forecasts and Underlying Contributions**

Percentage Change, Unless Otherwise Stated

	2016	2017	2018	2019	2020	2021
Real GDP Growth	5.2	4.3	3.7	3.1	2.7	2.5
Domestic Demand (p.p.) <sup>1</sup>	2.2	2.3	2.3	1.9	1.6	1.4
Net Exports (p.p.) <sup>1</sup>	2.9	2.1	1.4	1.1	1.1	1.0

Source: SPU 2017.

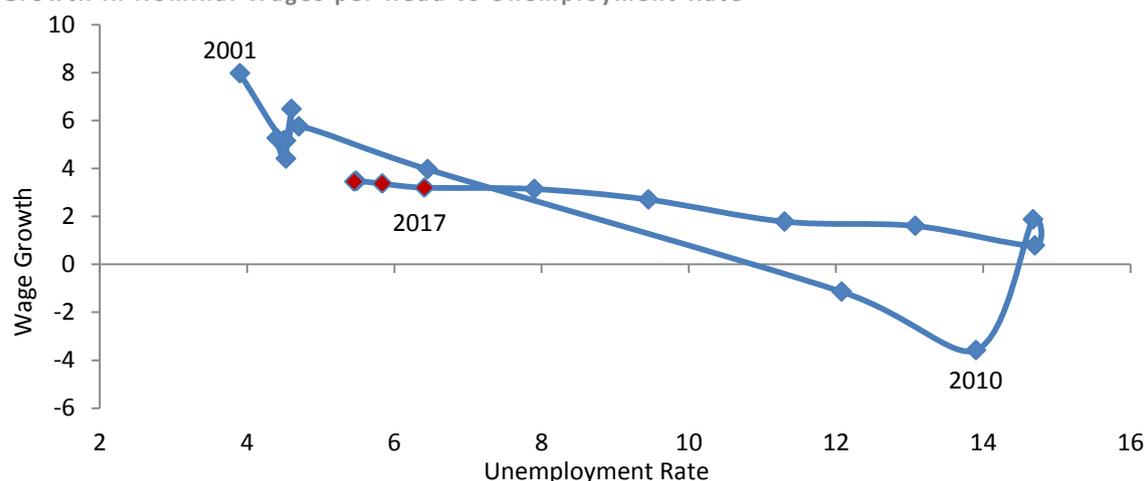
<sup>1</sup> Underlying contributions to real GDP growth rates in percentage points (excludes the effect of investment in aircraft or intangible assets). Domestic demand includes changes in inventories. Rounding can affect totals.

Given that the labour market is forecast to continue to improve over the forecast period, one might expect that wage growth would accelerate, rather than remaining largely flat, as is forecast.<sup>31</sup>

Historically, it has been the case that lower unemployment rates are associated with stronger wage growth (Figure 2.7), but this does not appear to be the case in SPU 2017 forecasts.

**Figure 2.7: Wage Growth vs Unemployment Rate 2001 to 2021**

Growth in Nominal Wages per Head vs Unemployment Rate



Sources: SPU 2017; and internal IFAC calculations.

Note: SPU 2017 forecast values (2017 - 2021) in red.

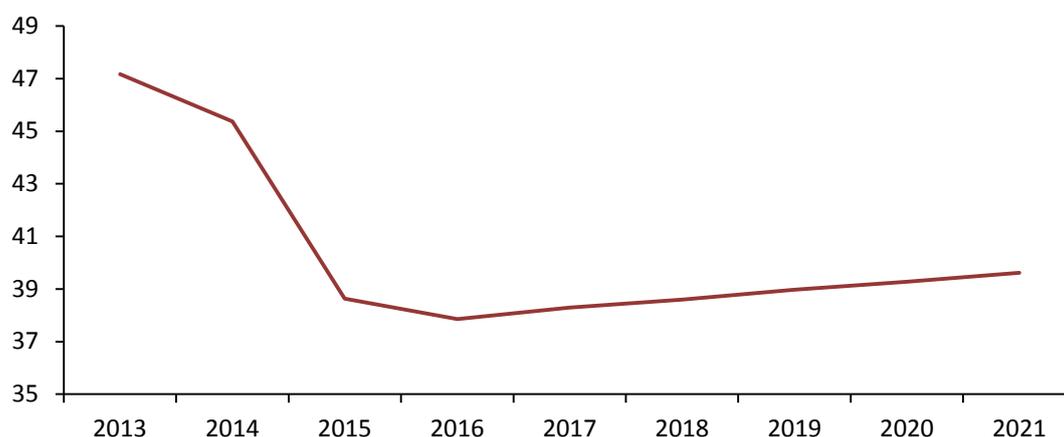
<sup>30</sup> While possible exchange rate movements could be significant, these may be somewhat mitigated by the fact that inflation could be higher in the UK as a result (mainly due to the higher cost of imports). This would mean that the real effective exchange rate would not move as strongly as implied by the depreciation of sterling on its own (IFAC, 2016b).

<sup>31</sup> The unemployment rate is forecast to fall to 5.5 per cent in 2019 and remain at that level thereafter.

The forecasts in *SPU 2017* indicate an increasing labour share in GNP, albeit from a historically low base (Figure 2.8). This reflects the shift towards contributions from domestic demand in the later years of the forecast – a shift from more high-productivity (exporting) activity to lower productivity sectors.

**Figure 2.8: Labour Share**

Percentage of GNP



Sources: CSO; and Department of Finance (*SPU 2017*).

Ascertaining the current cyclical position of the economy is difficult, and the Council uses a modular approach to help assess cyclical developments in the economy (see Appendix C). This involves assessing key sources of imbalances that can help to explain any deviation of the economy from its level of potential output, with a view to examining these “modules” in a more systematic manner. Means of incorporating this information directly into baseline estimates of potential output can then be explored.<sup>32</sup>

*SPU 2017* forecasts unemployment to be 6.4 per cent on average this year. It is not clear what unemployment rate is consistent with stable inflationary pressures in Ireland. The only anchor of the Department’s forecasts in this regard is the CAM-based Non-Accelerating Wage Rate of Unemployment (NAWRU) estimates, which tend to track actual unemployment quite closely.<sup>33</sup> Despite this uncertainty, it seems highly likely that the NAWRU is lower than the current CAM estimate of 7.7 per cent. Last year saw a return to net inward migration, which could significantly

<sup>32</sup> See Box A, Fiscal Assessment Report, November 2015.

<sup>33</sup> NAWRU stands for non-accelerating wage rate of unemployment and is a measure intended to capture the unemployment rate at which wage growth is stable.

boost labour supply in future years.<sup>34, 35</sup> Taking all this together, the labour market does not appear to be portraying signs of an overheating economy at present.

Traditionally, the current account has been a key metric to monitor for signs of imbalance in the Irish economy. Along with the publication of the 2015 National Accounts, there were substantial revisions to the current account, with further distortions pushing the surplus up substantially in line with the headline trade balance being revised up. These distortions appear more severe than was previously the case and are not only confined to redomiciled PLCs. Unfortunately, these distortions are not easily corrected for, and as such it is impossible to assess with certainty if the “true” current account is in deficit or surplus. As discussed in Box D, it is hoped that the new adjusted current account metric will give a better indication of the external position of the Irish economy.

Looking at domestic factors for imbalances, investment ratios are shown in Figure AC.3. Although headline investment appears to be above its historical average as a percentage of GDP, this is mainly driven by investment in aircraft and intangible assets. A useful indicator of potential imbalances from investment is to look at building and construction activity. Despite some modest increases in the last few years, output in this sector remains well below historical averages and the unsustainable pre-crisis highs.<sup>36</sup> Looking at credit indicators, while both measures suggest that credit remains weak relative to trend estimates as a share of GDP, a very different picture emerges when looking at the adjusted and unadjusted credit-to-GDP levels.<sup>37</sup> The adjusted credit-to-GDP level has continued to fall, reflecting continued deleveraging by Irish households and firms.

Taking all these factors into account and keeping in mind the uncertainties surrounding the cyclical position of the economy, it would appear that the economy is currently operating fairly close to its potential level. With this in mind, the official forecasts for the output gap in *SPU 2017* of 1.4 per cent for 2017 appears to be above what other indicators of the output gap would suggest. However, this situation is one which may change quite rapidly, with economic activity forecast to grow relatively strongly in coming years and unemployment continuing to fall.

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<sup>34</sup> While significant net inward migration can precede overheating in the labour market, the employment rate for those of working age remains well below its pre-crisis peak (see Appendix C).

<sup>35</sup> After *Census 2016* estimates are included, there could be substantial revisions to previous population and migration estimates.

<sup>36</sup> Even when using alternative denominators, investment in building and construction remains low by historical standards.

<sup>37</sup> The adjusted series excludes firms engaged in financial intermediation activities, and only includes Irish resident private sector enterprises as well as households.

### **Box C: Potential Output, Overheating and the Department's Commitment to Developing Alternatives to the Commonly Agreed Methodology (CAM)**

Estimates of potential output and the output gap are important inputs into appropriate fiscal and macroeconomic policies. In many previous *Fiscal Assessment Reports*, the shortcomings of the CAM for estimating potential output for Ireland have been highlighted. The Department of Finance has highlighted problems with this methodology going back as far as 2003 (Department of Finance, 2003). Bergin and FitzGerald (2014) also provide a very useful discussion of these difficulties in the context of the structural balance.

The Council recognises the importance of estimates of potential output and the output gap for assessing the fiscal stance and for assessing medium-term forecasts produced by the Department. With this in mind, significant work has been completed in developing alternative estimates to the CAM (see IFAC, 2015b for a summary). A range of alternative estimates has been developed, using various macroeconomic indicators as inputs (GDP, GNP and domestic GVA). This approach of developing a range of indicators is in line with the Councils "suite of models" approach for short-term forecasts.<sup>38</sup> This is designed to reduce the risk of a single model giving a misleading signal. In addition to the formal models of potential output, the Council also examines a range of indicators that may point to potential imbalances in the economy. Charts of these indicators are examined and published as an appendix in each *Fiscal Assessment Report* (see Appendix C).

To date, the CAM remains the only publicly stated view of the Department of Finance on medium-term developments and the cyclical position of the Irish economy. Two changes are necessary, given the obvious shortcomings of this methodology. Firstly, the Department should develop alternative methodologies to the CAM that provide a coherent view of the supply-side. Secondly, the Department should state how its views of the medium term differ from those implied by CAM estimates.

In its April 2017 endorsement letter, the Council welcomed the Department's commitment to develop an alternative to the CAM for medium-term forecasts in the coming 12 months. As has been highlighted previously (IFAC, 2015b), it is not uncommon for finance ministries to publish alternative estimates of potential output or the output gap to the CAM. While there is some variation in the presentational approach, 9 of the 20 EU countries examined showed alternative estimates of potential output, or the output gap.

One of the shortcomings of the CAM is that, by design, the output gap is forced to close at the end of the forecast period. By contrast, the approach taken by the Council is to maintain a range of models of potential output (see Chapter 1 for details), as well as monitoring a range of potential indicators of imbalances in the economy (see Appendix C).

The overheating which occurred in the mid- to late-2000s gives a recent example of symptoms that can be identified. Rapid credit growth was a clear signal of unsustainable growth in the Irish economy. The rapid household credit growth was mainly for house purchase. While there has recently been strong increases in house prices, these have not, as of yet, been driven by household credit growth (in fact, Figure C.4. shows adjusted private sector credit to GDP falling since its peak in 2009). Given that macroprudential regulations have been introduced since the crisis, it seems less likely that unsustainable

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<sup>38</sup> Reporting a range of estimates also helps to show the uncertainty surrounding estimates of potential output or the output gap.

increases in credit will fuel overheating in the Irish economy in the near-term.

While unsustainable credit growth may be unlikely to contribute to an overheating economy in the near term, a response to persistent supply pressures in the housing market may do so. Estimates of the number of new housing units required to meet demand due to demographics and new household formation vary quite substantially. Regardless of what estimate is used, however, completions are likely to have been well below estimates of annual demand for some time.<sup>39</sup> Depending on the extent to which supply now falls short of demand levels, this lack of supply may have led to a significant build-up of pent-up demand, which could have contributed to the significant price increases recently observed.

While supply has yet to show strong evidence of a sharp response to potential significant pent-up demand in the residential property sector, if it were to do so, one could see employment and output in the sector increase rapidly. In the 2000s, the rise in labour demand from the construction sector had two impacts. Firstly, the additional demand for labour contributed to upward pressure on wages, thus leading to competitiveness losses. Secondly, as the economy was already at full employment, substantial inward migration occurred to meet this demand for relatively unskilled labour. Given that unemployment is rapidly falling, any substantial increases in construction related employment could tighten the labour market, in a comparable way to that observed in the mid-2000s. If there has indeed been a build-up of demand in excess of any supply response, it may be reasonable to expect that housing output could exceed equilibrium levels of output (i.e., annual demand) for some time. How the housing sector might then return to more normal levels of activity would have a significant bearing on the cyclical position of the economy. Given that construction activity is quite tax rich, significant changes in the construction sector output, as outlined above, could yield large changes in tax revenue, as was the case in the 2000s.

Another potential indicator of imbalances in the economy relates to its external trading position. As discussed in Box D, it has become increasingly difficult to interpret the current account of the balance of payments. It is hoped that the CSO's new current account indicator due in June may provide a better insight into the external trading position of the Irish economy. Regardless of estimates of the current account of the balance of payments, underlying net exports have contributed substantially to growth in recent times. One would expect that as the output gap closes and the unemployment rate gets close to its equilibrium level, wages may rise, thus putting pressure on competitiveness. This would be consistent with a transition to growth being more domestically focused. If large contributions from net exports were to continue over the next couple of years, the sustainability of this growth would have to be questioned.

### 2.3.5 Forecasts of Other Agencies

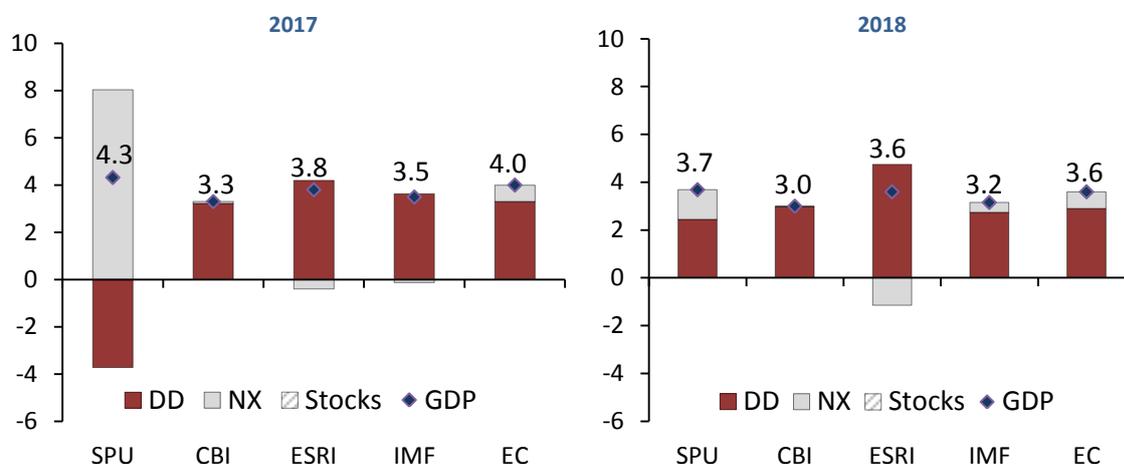
Most forecasting agencies envisage real GDP growth slowing down significantly, as forecast in *SPU 2017* over the near term, yet the *SPU* forecast of 4.3 per cent growth was above that of the other agencies at the time of endorsement. For 2017, all agencies forecast growth to be mainly due to

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<sup>39</sup> While figures for housing completions from the Department of Housing are often used, these figures relate to the number of units connected to the electricity network. This means that some vacant dwellings may be reconnected after a period and hence. Figures from the Census indicate that the housing stock increased by only 8,800 in five years. By contrast, completions data from the Department of Housing show 50,000 completions over this period, which depending on the assumed rate of obsolescence could imply a much bigger increase in the housing stock.

domestic demand.<sup>40</sup> There are some compositional differences for 2018, with the ESRI forecasting a negative net export contribution.

**Figure 2.9: Comparative Real GDP Growth Contributions**  
Percentage Point Contributions to Real GDP Growth



Sources: SPU 2017; ESRI (*Quarterly Commentary Spring 2017*); IMF (*World Economic Outlook, April 2017*); Central Bank Quarterly Bulletin 2, April 2017; and European Commission (*European Economic Forecast, May 2017*).

Note: All contributions are on a headline basis to ensure comparability across institutions. DD = Domestic Demand; NX = Net Exports.

#### Box D: Macroeconomic Indicators for Ireland and Multinational Activities

The publication of the *2015 National Income and Expenditure* accounts and the accompanying balance of payments data revealed several distortions relating to multinational activities in Ireland. To deal with these distortions and to develop a greater insight into Irish economic activity, an expert group was assembled to advise the CSO on how to meet user needs.<sup>41</sup> The Economic Statistics Review Group (ESRG) compiled a report which was published by the CSO, along with responses from the CSO, on 3rd February 2017.<sup>42</sup> This Box examines the group’s main recommendations and the indicators proposed for monitoring the Irish economy in the future.

To begin, it is worth considering what properties are needed to provide useful macroeconomic indicators for Ireland. A very useful measure for the public finances, and for understanding macroeconomic imbalances, would be a comprehensive aggregate that excludes obvious distortionary factors arising from the activities of multinational enterprises, which have little or no impact on domestic incomes and employment. Such an indicator would more closely capture the amount of economic activity that occurs in Ireland, and whose benefits flow to residents here. There are several uses for such a macroeconomic indicator, the most obvious of which include: (1) to examine the growth rate of the economy at any given moment in time; (2) to assess if the economy is above or below its potential level; and (3) to use as a denominator for ratios such as government debt and deficits. In addition to indicators of aggregate economic activity, indicators of

<sup>40</sup> The headline SPU contributions are very different as they assume a large fall in intangible investment and imports in 2017, which changes the headline contributions from domestic demand and net exports.

<sup>41</sup> See IFAC (2016B) Box A: “Ireland’s Revised National Accounts Statistics” for a review of the issues arising.

<sup>42</sup> Seamus Coffey (IFAC Chair) and Thomas Conefrey (then IFAC Chief Economist) were both members of the group.

potential imbalances, like the current account, have also been very difficult to interpret in recent times. This makes it challenging to discern the sustainability of ongoing economic developments.

The ESRG made recommendations under several headings, not all of which are discussed here. It was recommended that an adjusted indicator GNI\* (read as 'GNI star') would be published. This indicator would correspond to:

*GNI\* = Gross National Income, less retained earnings of re-domiciled PLCs and less depreciation of foreign-owned domestic capital.*

The first adjustment should ensure that retained earnings of redomiciled PLCs do not impact the recorded level of output in the Irish economy.<sup>43</sup> The second adjustment would ensure that balance sheet relocations and transactions would no longer impact on the level of activity recorded in Ireland, which was the case in 2015 (see IFAC (2016c)). These two adjustments would also be applied to the current account of the balance of payments to produce a consistent measure Current Account\* (C/A\*). It was proposed these adjusted measures would be published at both annual and quarterly frequency. In its response to the report, the CSO committed to producing these two series and publishing them alongside the National Income and Expenditure Accounts from June 2017 on an annual basis, with quarterly series to follow next year.

While no new data are yet published, the adjustments proposed should help move towards a more useful indicator of the level of national income in Ireland. Depreciation of relocated capital assets was associated with the increase in the capital stock, which led the jump in measured output in 2015. Therefore, the adjustment for this item should help to get a more realistic measure of national income in Ireland. The effect of redomiciled PLCs has been an issue for some time, particularly for the current account of the balance of payments and GNP. One would hope that the new C/A\* might be able to provide appropriate guidance as to the external position of the Irish economy, and act as an input into assessing the position of the Irish economy relative to its potential.<sup>44</sup>

To get a better sense of the split between activities of foreign-owned multinationals and the domestic economy, the ESRG recommended that both the National Income and Expenditure accounts and the Non-Financial Corporate Sector of the Institutional sector accounts would be presented in a foreign and domestic ownership split. It was proposed that firms in the CSO's large cases unit (all of which are foreign-owned) and remaining firms (which would mainly, but not exclusively, be domestically-owned) be identified separately. The CSO has committed to implementing this presentation to elements of both the national accounts and sector accounts, and will examine other presentations of data that will be potentially useful to users. This would be a welcome step towards providing better assessments of developments in Ireland, and would help to address long-standing issues.

As has been pointed out in previous publications (IFAC, 2016b; 2016c) using GDP or GNP as denominators for fiscal ratios is now highly inappropriate for Ireland, as these indicators do not accurately reflect the potential revenue-raising capacity of the Irish economy. It is worth considering what a denominator for such ratios should represent. Two aspects would seem desirable. Firstly, the denominator would indicate the revenue-raising potential of the economy. This was one motivation for the Council using government revenue as an alternative denominator for fiscal ratios in recent *Fiscal Assessment Reports*, as it is an observed value of the revenue that can be raised from activity in the Irish

<sup>43</sup> FitzGerald (2013) notes that the benefits of the retained earnings of re-domiciled plcs are attributed to their foreign owners, with no benefit to the Irish economy.

<sup>44</sup> The Council and the Department of Finance have in the past used the current account as a signal of macroeconomic imbalances in the context of estimating potential output for the Irish economy.

economy. One weakness of this measure is that the amount of revenue raised is influenced by policy. The tax rates and bands set by government can change the level of government revenue raised. However, this does not mean that the economy's revenue-raising potential has changed. A second aspect that would be desirable for a denominator for fiscal ratios would be that international/historical comparisons could be made. This requires that the denominator is comparable to more traditional measures of output (GDP or GNP) as they were before the recent distortions became apparent.

With these considerations in mind, the proposed GNI\* metric might serve as a more informative denominator for fiscal ratios. However, there are trade-offs when considering denominators to use for fiscal ratios. For example, the Council previously used a hybrid measure, which reflected the likelihood that the revenue potential of GNP is different from the excess of GDP over GNP. While GNP was assigned a weighting of one, the excess of GDP over GNP was estimated to have a weight of around 0.4. A similar hybrid measure could be constructed when the data on GNI\* are released. The corresponding approach would see GNI\* assigned a weighting of one, with the excess of GDP or GNP over GNI\* getting a lower weight.

While alternative denominators may be desirable for ratios such as government debt and deficits, GDP is likely to remain as the denominator for ratios relating to the fiscal rules. If GNI\* serves as an informative denominator for fiscal ratios, then the Department may consider presenting fiscal ratios using this denominator in future.

## 2.4 Risks

While the near-term prospects for the Irish economy remain relatively positive, substantial risks surround this central forecast. The recovery in the economy since 2012 has been aided by favourable external conditions for Ireland. Exchange rates boosted competitiveness; a looser global monetary policy stance helped alleviate a strained credit environment domestically; and there was some demand growth in Ireland's major trading partners. Last year saw some reversals of these trends, with weaker external demand and a significant appreciation of the euro against sterling. Given the open nature of the Irish economy, changes to the external environment could have a sizeable impact on the economy.

Table 2.6 below shows the macroeconomic risks identified in *SPU 2017*, along with the Department's assessments of relative likelihoods and impacts. This table also includes comments from IFAC on each of the risks identified. Three additional risks, which were not included in *SPU 2017*, are also added here, with the Council's assessment of the respective likelihoods and impacts. Overall, the *SPU 2017* risk matrix presents a comprehensive list of the main macroeconomic risks. While *SPU 2017* notes that "the balance of risk is quite clearly firmly tilted to the downside at the current juncture", the Council assesses risks to be more balanced, with upside risks to GDP in the short run and possibilities over over-heating further ahead. This reflects the view that there are substantial positive and negative risks to the forecasts. Positive cyclical risks are possible, mainly surrounding an increase in activity in the building and construction sector.

**Table 2.6: Assessing SPU 2017 Risk Matrix**

Risk	Likelihood	Impact	IFAC Comment
Exchange Rate Re-Alignment	H	H	The second half of last year saw a significant appreciation of the euro against sterling. While exchange rates could become more or less favourable in the coming years, increased volatility could be damaging to Irish firms.
“Hard Brexit”	H	H	A WTO style arrangement would appear to have the most significant economic implications for both the UK and its trading partners. This scenario appears to be increasingly likely, although great uncertainty remains, and could have significant implications for medium-term growth prospects in Ireland. The upcoming UK general election is likely to influence the eventual outcome of Brexit. While listed as a risk, many of the negative consequences of a hard-Brexit have been built into baseline projections of the Irish economy. As such, the main downside risk to the forecast from a hard-Brexit is that the impact of this shock has been underestimated.
External Demand Shock	M	H	Despite slower growth in 2016, Ireland has been benefited from its main trading partners performing relatively well in recent years. The slow pace of growth in world trade is of concern, as are the potential second-round impacts from Brexit.
Geopolitical Risks	M	H	While the direct impacts from geopolitical tensions may be limited, second-round effects could be significant, particularly if trade linkages are disrupted, or if there is a negative financial market reaction.
Trade Protectionism	M	H	Given that trade plays such an important role in the Irish economy, any protectionist measures that limit trade would be damaging to Irish growth prospects. Last year saw very weak world trade growth.
Loss of Competitiveness	M	H	Given the extremely open nature of the Irish economy, any losses in competitiveness could have significant implications for growth. There are several possible sources that could lead to an erosion of competitiveness, such as wage pressures and residential/commercial property inflation.
Housing Supply Pressures	H	M	The lack of a supply response to the excess demand in the property market has seen an escalation in the prices of both residential and commercial property. This has negative implications for competitiveness, with the likelihood of compensating upward pressure on wages. While a stronger supply response is needed to keep prices and rents down, overheating in the economy would be more likely to occur if there were substantial increases in construction activity, as other sectors continue to grow strongly.
Concentrated Industrial Base	L	H	Ireland’s industrial base is quite concentrated in a small number of sectors. Because of this, some sector- or firm-specific shocks could have a considerable impact on the Irish economy.
Global financial market conditions	M	M	With continued low interest rates, a “search for yield” could raise financial stability concerns.
Policy Uncertainty in the US	M	M	Changes in policy in the US, particularly in relation to Corporation Tax, could negatively impact on FDI into Ireland. In addition, plans for a common, consolidated corporate tax base (CCCTB) in the EU could also impact on the Irish economy. More generally, an uncertain policy environment in the US could damage growth prospects and hence weaken demand for Irish exports.

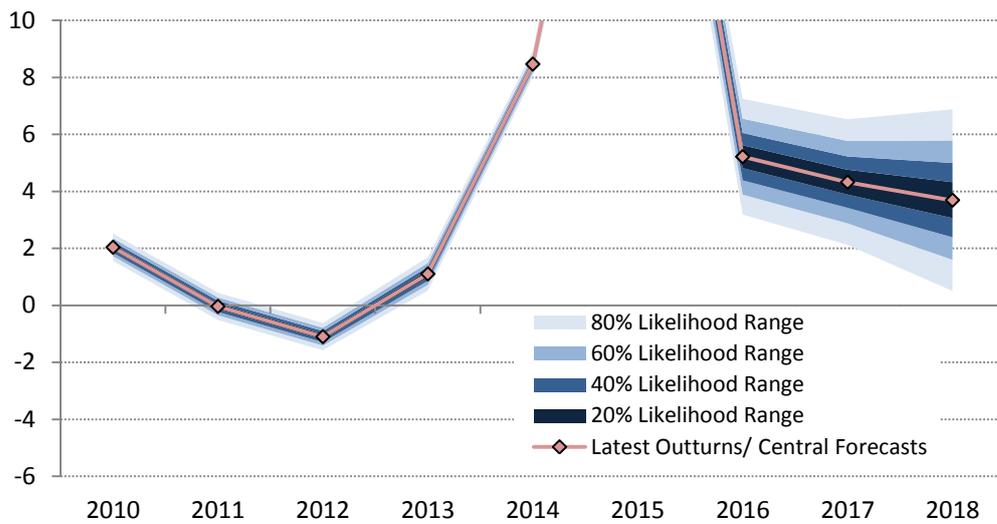
Risk	Likelihood	Impact	IFAC Comment
Private Sector Deleveraging	L	M	Although falling, household debt levels remain high at 144.8 per cent of disposable income. If households were to prioritise income gains for paying down debt rather than consumption, this would imply a downside risk to the consumption forecasts. It is worth noting, however, that savings rates are already at historical highs.
Rapid Rebound in Oil Prices	L	L	As an importer, higher oil prices would reduce the purchasing power of Irish consumers and increase costs for businesses here, while weaker oil prices would be supportive of consumption.
Inappropriate Monetary Policy (IFAC Risk)	M	H	A risk which is not identified in <i>SPU 2017</i> is that monetary policy could be inappropriate for Ireland. With output growth and inflation in the Euro Area remaining subdued, accommodative monetary policy looks set to continue. <sup>45</sup> As growth in Ireland is forecast to continue to outperform the Euro Area, there is a risk that monetary policy could be looser than ideal for Ireland in the coming years. The last crisis showed the impact that inappropriate monetary policy can have in terms of amplifying the business cycle.
Inappropriate Domestic Policy (IFAC Risk)	M	M	With monetary policy set by the European Central Bank (ECB), there are two main domestic policy tools to be used. Given the current cyclical position of the economy and the growth rates forecast, fiscal and macroprudential policy may need to play an active role to prevent overheating in the economy.
Persistence of Low Inflation (IFAC Risk)	M	M	“Secular stagnation” and associated low inflation could have adverse impacts on demand for Irish exports. In addition, countries with high debt burdens (private and public) would welcome higher inflation to reduce the real value of those debt burdens.

Note: Likelihood and impacts from *SPU 2017*: H= High; M = Medium; L = Low.

As has been highlighted in previous *Fiscal Assessment Reports*, the Irish economy has historically been one of the most volatile in the OECD, along with a tendency towards large revisions to historic data. Figure 2.10 shows the historic data and *SPU* forecasts with fans based on historical revisions and forecast errors.

<sup>45</sup> Forecasts for inflation have been revised up but remain below the 2 per cent target level. Output growth is forecast to be less than 2 per cent in both this year and next (World Economic Outlook, IMF, April 2017).

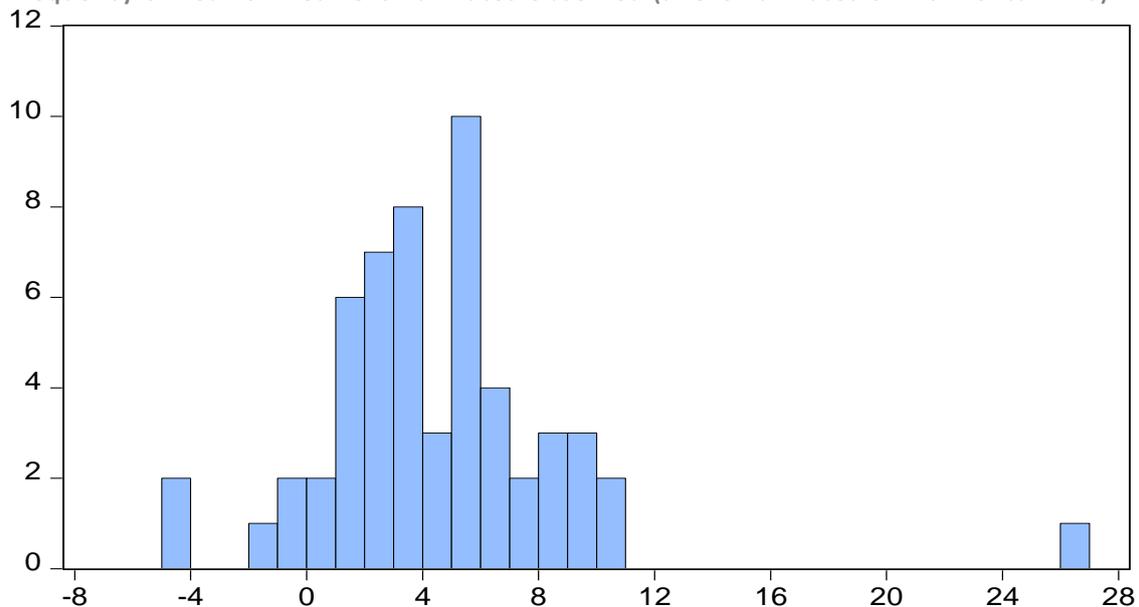
**Figure 2.10: Real GDP Fan Chart Based on SPU 2017 Projections**  
Percentage Change (Year-on-Year)



*Note:* Distributions or 'fans' around historical growth estimates are based on previous revisions to real GDP data. Forecast errors based on 1999-07; 2010-15 sample. The Y axis is adjusted to make the 2017 and 2018 forecasts legible.

The rapid recent growth in the economy reflects, in part, the volatility in the economy, which has been evident not just in recent times, but throughout history. While growth in the 2 to 5 per cent range may be considered normal for a mature economy, only 18 of the last 56 years have seen real GDP growth in that range (Figure 2.11 below).

**Figure 2.11: Historical Irish Real GDP Growth Rates**  
Frequency of Year-on-Year Growth Rates Observed (% Growth Rates on Horizontal Axis)



*Sources:* CSO; and internal IFAC calculations.

*Note:* Data cover annual data for sample period 1960 to 2016.

### 3. Assessment of Budgetary Forecasts

#### Key Messages

- The General Government balance (excluding one-off items) for 2016 is estimated at -0.7 per cent of GDP, representing an improvement of 0.4 percentage points relative to 2015. For 2017, the *SPU 2017* forecasts show a further improvement, with the balance rising to -0.4 per cent of GDP, broadly the same as forecast at budget time.
- *SPU 2017* keeps tax revenue forecasts for 2017 unchanged from *Budget 2017*. Outturns during the first four months of the year are weaker than expected and there is a slowdown in year-on-year growth. Recent developments would suggest that trends in revenues should be closely monitored. However, continued strong economic growth may warrant leaving the 2017 forecasts unchanged for now. More certainty is needed about the drivers of the weaker-than-expected outturns, and whether these will persist.
- The “Top 10” payers of Corporation Tax continue to play a substantial role, accounting for 37 per cent of net Corporation Tax receipts in 2016. High concentration exposes these and overall revenues to volatility risk.
- *SPU 2017* projects the budget to be barely in balance by 2019, evolving thereafter in line with the Government’s stated policy of minimum compliance with the fiscal rules. Forecasts show tax revenues growing slightly faster than domestic demand, falling interest payments, spending on services and welfare payments growing more slowly than GDP, and €1 billion each year being set aside for a proposed future Rainy Day Fund.
- The Council’s illustrative estimate of future spending pressures – the “Stand-Still” scenario – is based on the calculation of the cost of providing today’s level of public services over the forecast horizon to 2021. The scenario implies that the spending increases currently budgeted for in *SPU 2017* over 2018-2021 would be fully absorbed by accommodating demographic pressures and the cost of maintaining real public services and benefits.
- The Department of Finance’s assumption in the *SPU* forecasts (as in *Budget 2017*) of using the available fiscal space, in line with Government policy, is welcomed by the Council. This provides more realistic forecasts for expenditure and tax revenues. The Council also notes the work being undertaken on expenditure modelling as per the *Mid-Year Expenditure Report 2016*, which will “separately model the evolution of volume/demand and price impact” on public expenditure.

### 3.1 Introduction

This Chapter assesses the latest set of budgetary forecasts produced by the Department of Finance in *SPU 2017*. Section 3.2 examines the outturn of the main fiscal aggregates for 2016. Section 3.3 assesses the projections for revenue and expenditure for 2017 contained in *SPU 2017* and discusses the upcoming Spending Review. Section 3.4 examines the forecasts for the period 2018-2021 and provides an update of the Council's Stand-Still expenditure scenario. Section 3.5 provides an assessment of the fiscal risks.

The main fiscal aggregate outturns/forecasts for 2016-2021 are set out in Table 3.1. The General Government balance, excluding one-offs, is expected to improve over the forecast horizon (2017-2021), turning positive in 2019. Excluding one-offs, total revenues are forecast to grow at an average annual rate of 3.8 per cent from 2017 to 2021, with total expenditure planned to grow at a slower average annual rate of 2.5 per cent over the same period. The proposed Rainy Day Fund plans to allocate €1 billion euro each year from 2019 to 2021 to an Exchequer Contingency Reserve. Although these amounts would be counted as Exchequer spending, they will remain within the General Government sector and therefore have no impact on General Government spending. Primary expenditure, expenditure excluding interest spending, is forecast to grow at a slightly faster average annual rate of 2.9 per cent for the forecast period (2017 to 2021). Primary expenditure, excluding one-offs, is expected to average 24 per cent of GDP over the same period, but is expected to gradually fall over the forecast period (2017-2021). This decline is due, in part, to falling social welfare spending, as the unemployment rate decreases. However, the fall in expenditure as a share of GDP reflects expenditure plans, which keep spending constant in real terms.

**Table 3.1: SPU 2017 Fiscal Forecasts (2016-2021)**

% of GDP, Unless Otherwise Stated

	2016	2017	2018	2019	2020	2021
General Government Balance, € Billions	-1.5	-1.2	-0.4	0.3	1.8	3.3
General Government Balance	-0.6	-0.4	-0.1	0.1	0.6	1.0
General Government Balance, excl. one offs <sup>1</sup>	-0.7	-0.4	-0.1	0.1	0.6	1.0
Primary Balance	1.7	1.7	1.9	2.0	2.3	2.6
Primary Balance excl. one offs <sup>1</sup>	1.6	1.7	1.9	2.0	2.3	2.6
Total Revenue, € Billions	73.0	75.2	78.0	80.8	84.2	87.4
Total Revenue excl. one offs, <sup>1</sup> € Billions	72.5	75.2	78.0	80.8	84.2	87.4
Total Revenue excl. one offs growth y/y <sup>1</sup>	2.7	3.7	3.8	3.6	4.2	3.9
Total Revenue excl. one offs <sup>1</sup>	27.3	26.8	26.5	26.2	26.2	26.1
Total Expenditure, € Billions	74.6	76.4	78.4	80.5	82.4	84.1
Total Expenditure excl. one offs <sup>1</sup> € Billions	74.4	76.4	78.4	80.5	82.4	84.1
Total Expenditure excl. one offs growth y/y <sup>1</sup>	1.2	2.7	2.6	2.7	2.3	2.1
Total Expenditure excl. one offs <sup>1</sup>	28.0	27.2	26.6	26.1	25.6	25.1
Primary Expenditure, € Billions	68.4	70.4	72.4	74.6	76.8	78.9
Primary Expenditure growth y/y	-0.5	2.9	2.9	3.1	2.9	2.7
Primary Expenditure excl. one offs <sup>1</sup> € Billions	68.2	70.4	72.4	74.6	76.8	78.9
Primary Expenditure excl. one offs <sup>1</sup> growth y/y	2.4	3.2	2.9	3.1	2.9	2.7
Primary Expenditure excl. one offs <sup>1</sup>	25.7	25.1	24.6	24.2	23.9	23.5
Nominal GDP Growth %	3.9	5.5	5.0	4.6	4.4	4.2

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

Note: <sup>1</sup>One-offs/temporary measures are as assessed by the Council to be applicable. These one-offs are removed from variables to get a sense of the underlying fiscal position. The main one-offs assessed by the Council to be applicable include the AIB transaction in 2015 (€2.1 billion); an amount related to the contribution to the EU Budget prompted by GNI revisions for 2016 (€0.17 billion) and the EFSF pre-paid margin in 2016 (€0.55 billion).

## 3.2 2016 Outturn

### General Government Revenue and Expenditure 2016

The General Government balance (excluding one-off items) recorded a deficit of 0.7 per cent of GDP in 2016.<sup>46</sup> Table 3.2 shows the evolution of the Department of Finance's budgetary projections for 2016 over time and compares them to the outturn.

<sup>46</sup> One-offs are examined in Box H of Chapter 4 and relate to those identified by the Council as being applicable.

**Table 3.2: General Government Receipts and Expenditures 2016**

€ Billions, Unless Otherwise Stated

	Budget 2016	SPU 2016	Budget 2017	Outturn
General Government Balance	-2.8	-2.5	-2.4	-1.5
General Government Balance (% of GDP)	-1.2	-1.1	-0.9	-0.6
General Government Balance excl. one offs (% of GDP)	-1.4	-1.2	-1.1	-0.7
Primary Balance (% of GDP)	1.8	1.6	1.4	1.7
Primary Balance excl. one offs (% of GDP)	1.5	1.5	1.3	1.6
Revenue				
Taxes on Production and Imports	23.4	23.8	23.4	23.6
Current Taxes on Income, Wealth	28.3	28.2	29.3	29.1
Capital Taxes	0.4	0.3	0.4	0.4
Social contributions	11.9	11.7	11.9	12.1
Property Income	2.1	2.0	1.9	1.7
Other	5.2	5.4	5.1	6.1
Total revenue	71.3	71.4	72.2	73.0
Total Revenue excl. one-offs (% of GDP)	31.7	30.7	27.2	27.3
Expenditure				
Compensation of Employees	19.9	20.0	19.7	19.4
Intermediate Consumption	9.7	9.8	9.9	9.7
Social Payments	28	27.7	28.1	28.5
Interest Expenditure	6.6	6.3	6.2	6.2
Subsidies	2.0	1.7	1.7	1.7
Gross Fixed Capital Formation	4.2	4.0	4.6	4.9
Capital Transfers	1.1	1.5	1.4	1.4
Other	2.7	2.9	3.0	2.7
Total expenditure	74.1	73.9	74.6	74.6
Total Expenditure excl. one-offs (% of GDP)	33.1	31.9	28.3	28.0
Primary Expenditure	67.5	67.6	68.3	68.4
Primary Expenditure excl. one-offs	67.3	67.4	68.2	68.2
Primary Expenditure excl. one offs (% of GDP)	30.2	29.2	25.9	25.7

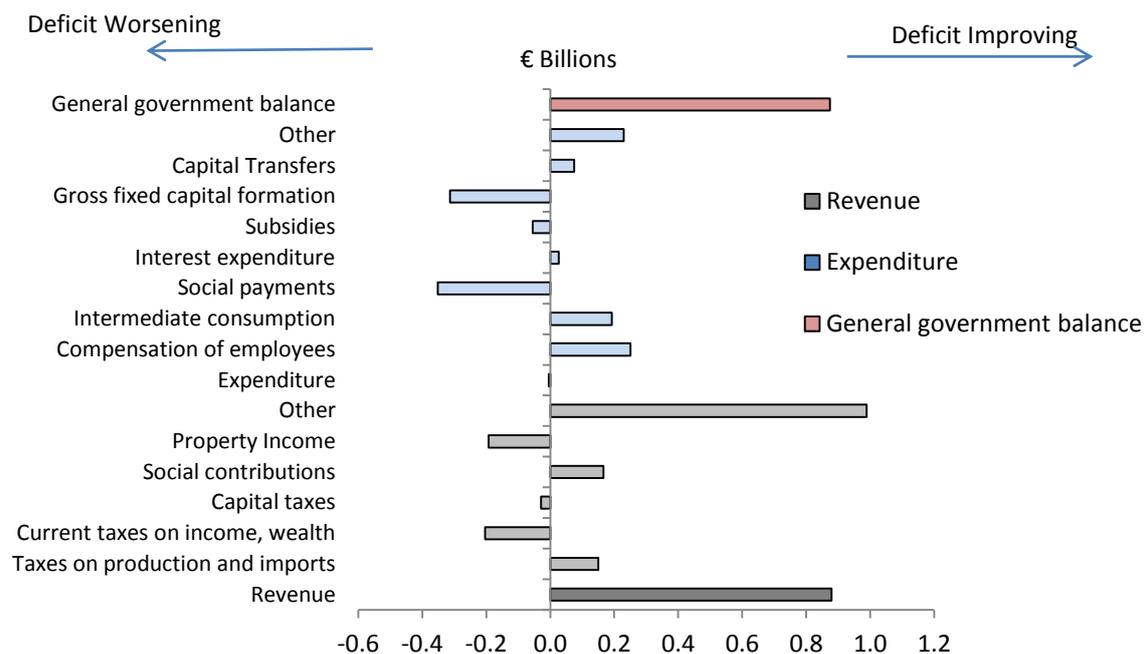
Sources: CSO, Department of Finance; Department of Public Expenditure and Reform (DPER); and internal IFAC calculations.

Note: One-offs are examined in Box H of Chapter 4 and relate to those identified by the Council as applicable.

For 2016, total General Government revenues outperformed previous forecasts, and the final outturn was €0.8 billion (0.3 per cent of GDP) above the *Budget 2017* forecast, driven mainly by “other” revenues (Figure 3.1). The most substantial difference in “other” revenues, when compared to *Budget 2017*, relates to the receipt of the prepaid margin from the EFSF (€550 million). A further €250 million relates to higher than expected revenues from local authorities, with the remainder (€195 million) made up of a number of larger-than-forecast current transfers receivable.

**Figure 3.1: Outturn vs. Budget 2017 Forecast (for 2016)**

Impact on Deficit, € Billion



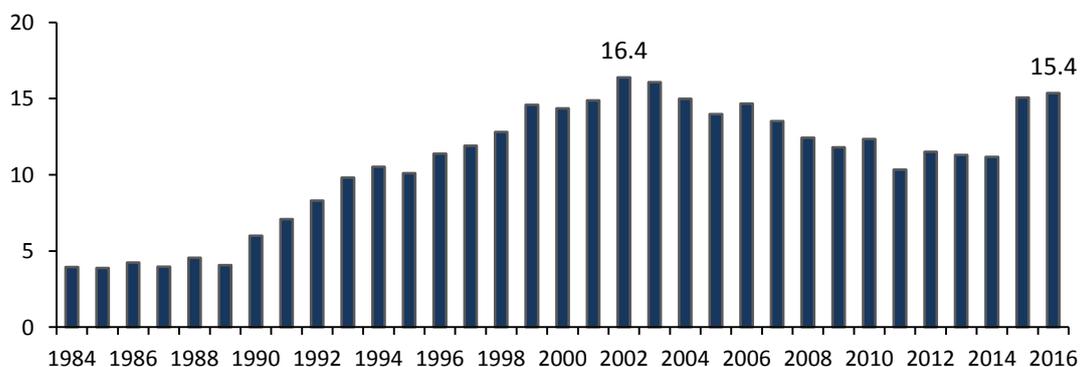
Sources: Department of Finance; and internal IFAC calculations.

Note: Impact on deficit shown - worsening if revenue is less than forecast/expenditure greater than forecast.

Corporation Tax revenues accounted for 15.4 per cent of Exchequer tax revenue and 10.1 per cent of total revenue in 2016. Figure 3.2 shows the evolution of the proportion of Exchequer Tax Revenue accounted for by Corporation Tax over time. *SPU 2017* notes that over the medium term (2018 to 2021) “Corporation Taxes will account for just about 15 per cent of all tax revenues, which is within previous parameters”. However, as shown in Figure 3.2, Corporation Tax has only accounted for a greater share of Exchequer taxes than it currently does on two previous occasions in the past three decades – in 2002 and 2003. Furthermore, the recent share is far above the average share from 1984 to 2016 (10.8 per cent), and higher than the average during the boom years from 2000 to 2008 (14.6 per cent).

**Figure 3.2: Corporation Tax Accounting for Greater Share of Revenues**

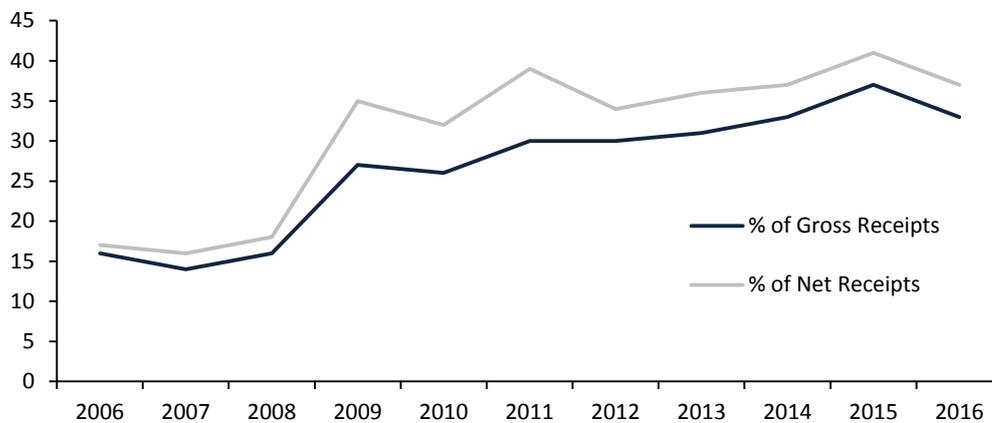
% Total Exchequer Tax Receipts



Sources: Department of Finance; and internal IFAC calculations.

Corporation Tax plays a disproportionate role in revenue volatility. The high level of volatility of Corporation Tax receipts was highlighted in 2015, with an increase in net receipts by €2.3 billion over 2014, to €6.78 billion. In 2016, receipts rose by €480 million to €7.35 billion. Recent research by the Office of the Revenue Commissioners offers some insights into this volatility (Tancred, 2017). Of the 7 per cent increase in receipts in 2016, the majority is accounted for by companies managed by Revenue Large Cases Division (LCD), which represented 82 per cent of total Corporation Tax receipts in 2016. These companies had net receipts of €6,034 million in 2016, an increase of €506 million when compared to 2015.

**Figure 3.3: Corporation Tax Receipts Accounted for by ‘Top 10’ Payers**  
Percentage of Total Corporation Tax Receipts



Sources: Revenue; and internal IFAC calculations.

Note: Gross receipts describe receipts before repayments while net receipts describe receipts after repayments.

The increased concentration of Corporation Tax receipts among a small number of firms raises the risk associated with volatility of this tax head due to idiosyncratic shocks. Emphasising the importance of idiosyncratic developments, Casey and Hannon (2016) note that recent variation in Corporation Tax receipts is largely unexplained by economic fundamentals. Figure 3.3 shows how the proportion of net receipts accounted for by the ‘Top 10’ payers has risen over the past decade from 17 per cent in 2006 to 37 per cent of total Corporation Tax receipts.

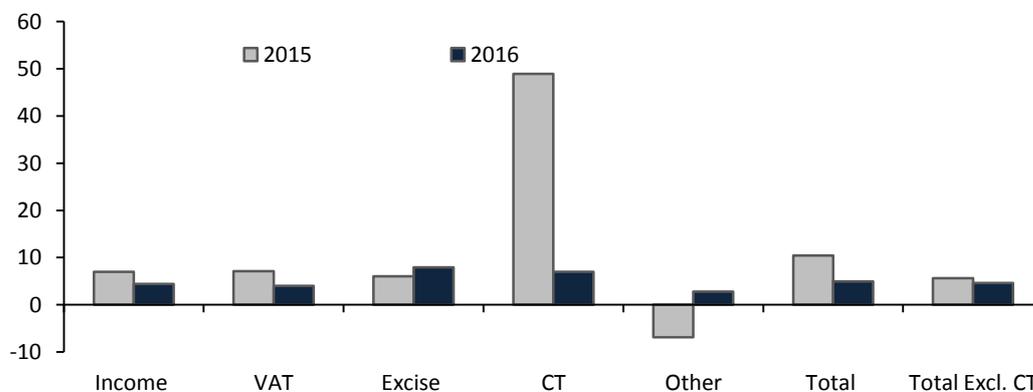
Looking at the year-on-year performance, Exchequer tax revenue for 2016 was €47.9 billion, an increase of €2.3 billion (5 per cent) over 2015. Excluding Corporation Tax, the increase was 4.6 per cent. Overall, receipts from the four main tax heads (Corporation Tax, VAT, Income Tax and Excise Duties) grew in 2016, although all except Excise Duties grew at a slower rate than in 2015 (Figure 3.4). Excise Duties showed an increase of 7.9 per cent in 2016.<sup>47</sup> In contrast, the growth of VAT receipts slowed to 4 per cent from 7.1 per cent in 2015. Income tax increased by 4.4 per cent in

<sup>47</sup> High growth of excise duties in 2016 was attributed largely to increased Vehicle Registration Tax and other oil receipts by the Department. High growth of Excise Duties in 2016 also reflects the front loading of stock in the tobacco industry ahead of the introduction of plain packaging legislation. See Department of Finance Fiscal Monitor, January 2017: [http://www.finance.gov.ie/sites/default/files/Fiscal\\_Monitor\\_January\\_2017\\_0.pdf](http://www.finance.gov.ie/sites/default/files/Fiscal_Monitor_January_2017_0.pdf)

2016, compared to 7 per cent in 2015. The slower revenue growth observed in 2016 is broadly in line with growth in GDP drivers.

**Figure 3.4: Tax Revenue Growth**

Year-on-year Growth (%)



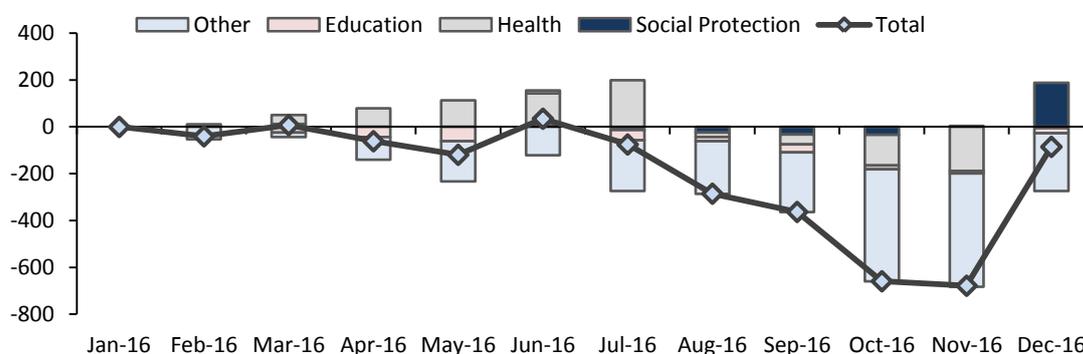
Sources: Department of Finance Exchequer Returns, internal IFAC calculations and Budget 2016.

Note: "Other" is the sum of Stamp Duties, Local Property Tax, Customs, Capital Gains, Capital Acquisitions and other taxes.

General Government expenditure in 2016 was the same as expected at the time of *Budget 2017* (Figure 3.1). This was despite additional allocations of funding for both the Health and Justice areas that were voted on in July 2016. Gross voted current expenditure was remained marginally below the *Budget 2017* forecast for 2016 of €52 billion (Figure 3.5). Considerable savings in the "other" category seen in the year-to-November were distributed broadly across all departments. However, these savings unwound somewhat in December, driven largely by an overrun of some €188 million in Social Protection related to the payment of the "Christmas Bonus" which had not been included in spending plans.<sup>48</sup>

**Figure 3.5: Gross Current Expenditure Relative to Budget 2017 Profile**

€ Millions



Source: Department of Finance Exchequer Returns; and internal IFAC calculations.

Note: Figures are relative to the cumulative profile adjusted to include the supplementary estimates announced June 2016.

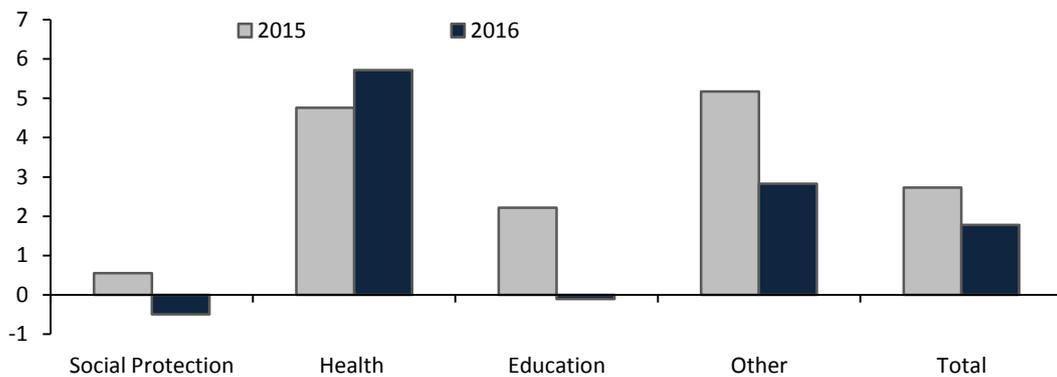
<sup>48</sup> However, it was factored into the revised *Budget 2017* estimates for 2016.

Figure 3.6 shows the change in gross voted current expenditure in year-on-year terms for 2015 and 2016. Total spending grew more slowly in 2016. Falling unemployment suggests that there may be some scope for lower Social Protection spending as in 2016. Health spending registered relatively high growth in both years.

Health expenditure has been subject to frequent overruns in recent years (Howlin, 2015). The Department of Health outturn was below profile in 2016 only due to the use of mid-year supplementary estimates, with substantial overruns up until mid-year (Figure 3.5). The use of supplementary estimates reinforces the “soft budget constraint” issue, which undermines the credibility of the expenditure ceilings.<sup>49</sup> The planned expenditure in *Budget 2017* will bring the level of Health funding to its highest in the history of the State.

**Figure 3.6: Gross Voted Current Expenditure**

% Change, Year-on-Year



Sources: DPER.

Note: The amount for Health is adjusted in 2014, to reflect changes to the vote structure in that year.

### 3.3 SPU Forecasts For 2017

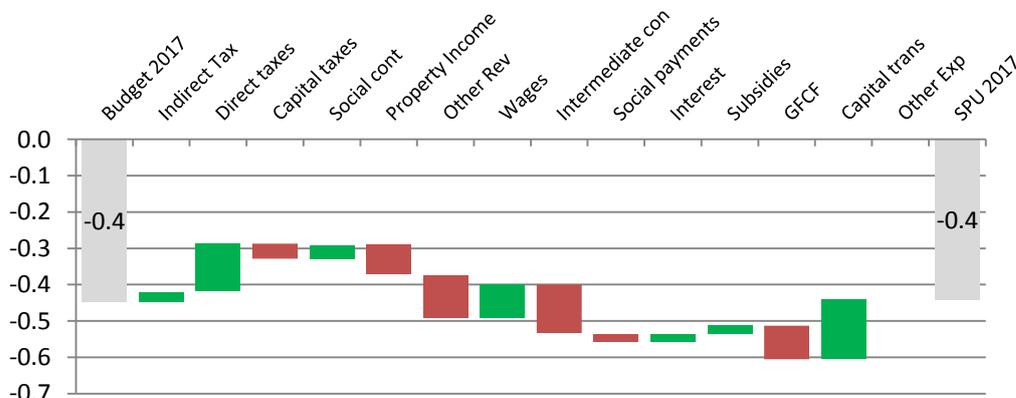
#### General Government Balance 2017

Figure 3.7 shows how *SPU 2017* revised the *Budget 2017* forecast for the general government balance expected this year. Though the headline figure remains broadly unchanged, with a deficit

<sup>49</sup> The soft budget constraint, as originally formulated (Kornai, 1992), posits that a budget constraint is soft where the decision maker in control of day-to-day expenditure anticipates that the constraint is likely to be relaxed *ex post* if the original constraint is not met, notwithstanding any *ex-ante* threats to impose a hard constraint. Where the budget setting process is weak, this may further ‘soften’ the constraint as the manager – knowing plans are poorly set – has less of an incentive to adhere to them.

of approximately 0.4 per cent, there are several factors making positive and negative contributions (Figure 3.7).<sup>50</sup>

**Figure 3.7: Revision to 2017 Deficit: SPU 2017 vs Budget 2017**  
% of GDP



Sources: Department of Finance; and internal IFAC calculations.

Note: Floating bars indicated the sources of revision to the 2017 deficit; a green bar represents a positive impact (deficit reducing); and a red bar indicates a negative impact (deficit increasing). These revisions are not the result of any policy change or statistical decisions which impact 2017.

### Revenue 2017

The headline *SPU 2017* General Government revenue forecast for 2017 is largely unchanged (-€0.1 billion) since the budget, with an expected overall increase in General Government Revenues of 3 per cent year-on-year.

In terms of Exchequer taxes, *SPU 2017* budgetary projections left the overall level forecast for 2017 unchanged from the *Budget 2017* estimate at €50.6 billion. Given that the outturn in 2016 was lower than forecast on budget day by some €0.3 billion, there is an implied increase in the expected growth rate of 0.6 percentage points to 5.8 per cent year on year. This is marginally above the expected nominal GDP growth rate of 5.5 per cent for 2017, which has also been revised up since *Budget 2017* (Chapter 2).

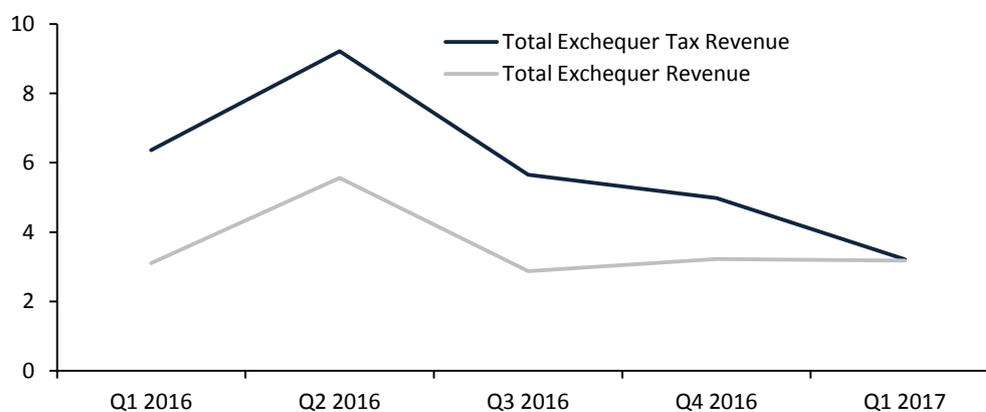
Appendix E outlines the important factors impacting *SPU 2017* forecasts for the four main tax heads (Income Tax, VAT, Excise Duties and Corporation Tax). It shows the role played by changes to the economic environment (i.e., to macro drivers as forecasted by the Department of Finance), starting point errors and judgement applied by the Department.

<sup>50</sup> This, in part, reflects the suspension of water charges in the first half of 2017, which results in an estimated reduction of €70 million in “other revenues”. Also of note is the deficit-reducing effect of wage revisions (€255 million). This relates to the base effect of lower official outturn data for 2016, which partially offsets the decision to bring forward the Lansdowne Road pay increases. Similarly, other movements in General Government revenue classifications largely relate to base effects associated with the revised 2016 outturns.

In 2017, the starting point error played a substantial role in three of the four main tax heads. For Corporation Tax and VAT, the error was negative, while for PAYE it was positive. There was a strong positive macro-driver effect for PAYE. Summing across the four tax heads (Corporation Tax, VAT, PAYE and Excise Duties) the overall starting point error is negative. This combined with an overall positive macro effect and positive judgement applied by the Department of Finance keeps the total revision from *Budget 2017* at zero. The Department of Finance has thus, in keeping tax forecasts consistent with those at budget time, and given the outturns for 2016, imposed considerable offsetting judgement across individual tax heads.

Figure 3.8 shows the year-on-year growth in total revenue, excluding transactions with no General Government impact, and total tax revenue on a quarterly basis. Total Revenue growth year-on-year has moderated, and this is also reflected in Tax Revenue. Tax returns in 2017 as at the end of April were below profile by 2.4 per cent, representing an increase year-on-year of only 0.5 per cent. The fall in Tax Revenue growth is partially driven by softer Income Tax growth, and slow growth in Excise Duties.<sup>51</sup> Stamp Duties, Capital Taxes and other taxes have seen a relatively poor performance year-on-year, with slow growth currently being offset somewhat by the growth in VAT, which is exceeding expectations.

**Figure 3.8: Exchequer Revenue Growth (Q1 2016 - Q1 2017)**  
Percentage Change (Year-on-Year)



Sources: Department of Finance; and internal IFAC calculations.

Note: Comparison of 2015, 2016 and 2017 monthly Exchequer Returns.

For 2017 to end-April, VAT has been performing much stronger than forecast, and beyond what might have been expected given the pace of growth in retail sales. *SPU 2017* notes this performance is due to lower-than-expected repayments and stronger receipts from some of the

<sup>51</sup> Other tax heads were also performing below profile to April 2017, except Local Property Tax and Capital Gains Tax, and all except Local Property Tax were down year-on-year.

Lower growth in Excise Duties is partially due to the base effect of front loading of tobacco in the early part of 2016 in anticipation of the introduction of plain packaging. See Department of Finance Fiscal Monitor, January 2017: [http://www.finance.gov.ie/sites/default/files/Fiscal\\_Monitor\\_January\\_2017\\_0.pdf](http://www.finance.gov.ie/sites/default/files/Fiscal_Monitor_January_2017_0.pdf)

main VAT components.<sup>52</sup> However, if the repayments were to emerge later in the year, the over-performance could unwind. It is currently unclear if this will occur.

Income tax receipts have performed poorly throughout the first four months of 2017, following lower growth in 2016 than 2015. The soft performance to end-April 2017 against forecasts (under by 3.1 per cent, or €198 million) and year-on-year, increasing by just 1.2 per cent (€70 million), is surprising, given the recent pace of growth in employment at some 3.5 per cent year-on-year. In the first quarter of 2017 year-on-year growth in PAYE, a major component of Income Tax, was 6 per cent (an increase of €187 million), relatively in line with employment growth.<sup>53</sup> The Universal Social Charge (USC) accounted for roughly a third of the fall below profile (€63 million of the €180 million shortfall) and was down year-on-year by 12 per cent (€107 million).<sup>54, 55</sup>

Possible explanations for the soft performance of USC in the first four months of 2017 are worth considering. First, the revenue-reducing impact of cuts introduced in recent budgets may have been larger than estimated, or the responsiveness of USC receipts to rising incomes has been overestimated. The Revenue Commissioners, however, have indicated that they are “satisfied ... changes of €335 million in 2017, were costed accurately”.<sup>56</sup> Second, the Department of Finance and the Revenue Commissioners have also indicated that the poor performance of USC thus far in 2017 is partially due to a misallocation of the *Budget 2017* package between PAYE and Schedule D payers. Although this misallocation would not impact the overall receipts of USC for the year, it may affect the timing of payments and could be a reason for the poor performance in the year to date.<sup>57</sup>

Estimating the impact of USC reductions may still be difficult, and recent work has substantially revised the estimated elasticities applicable for USC.<sup>58</sup> Acheson *et al.* (2017) estimate an elasticity to earnings in relation to USC of 1.2, which is considerably lower than that used by the Department of Finance for 2017, at 2.15. This reflects a more disaggregated approach, whereby distributional data are used to estimate a separate elasticity for USC.<sup>59</sup> A lower elasticity was also found in

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<sup>52</sup> One potential reason for repayments being lower than expected could be a decrease in stock building.

<sup>53</sup> PAYE was below profile by 2 per cent (€49 million) in Q1 2017.

<sup>54</sup> PQ [22380/17] <https://www.kildarestreet.com/wrans/?id=2017-05-10a.198.q>

<sup>55</sup> This fall year-on-year is in part due to the revenue reducing discretionary tax measure introduced in relation to USC.

<sup>56</sup> PQ [22540/17] & [22539/17] <https://www.kildarestreet.com/wrans/?id=2017-05-11a.168.r>

<sup>57</sup> PQ [22540/17] & [22539/17] <https://www.kildarestreet.com/wrans/?id=2017-05-11a.168.r>

<sup>58</sup> Some work has been produced recently by the ESRI estimating the elasticity of tax revenues to specific macro drivers. This is reflected in Deli *et al.* (2016).

<sup>59</sup> It is important to note also that USC was introduced fairly recently and so analysis is improving as more information is available. However, frequent changes to rates will make estimating the cost of changes more difficult to predict.

relation to Income Tax for both PAYE and non-PAYE workers. These elasticities were used in determining the *SPU* tax forecasts for 2018 onwards, but were not factored into the 2017 forecasts, which remain unchanged from *Budget 2017*.<sup>60</sup> Had the lower elasticity been used, forecasts in 2017 would have shown a lower level of revenue in 2017, as additional employment and earnings would not generate as much extra tax revenue as estimated with the old elasticities.<sup>61</sup>

While the new elasticities would suggest lower receipts, all else equal, the macro drivers have been revised up slightly since *Budget 2017* and recent employment and incomes data have been strong. There is therefore some remaining uncertainty as to the extent to which the weaker-than-expected performance of income tax in the first four months of 2017 will persist or whether it will be offset by a stronger-than-expected performance in macro drivers. This is further supported by PRSI data. PRSI revenues for the first 4 months of 2017 have seen an increase, year-on-year, of 7 per cent, which is higher than employment growth of 3.5 per cent in Q1 2017.

Overall, the poor tax revenue performance to date against profile, and relatively soft performance in year-on-year terms may raise some concerns, although it is still relatively early to ascertain the persistence of recent weaknesses in receipts. If the relationship between these macro drivers and revenues has changed, the elasticities used in producing the tax forecasts will need to be updated. Given the uncertainties involved, the Department has decided to leave the 2017 forecasts unchanged in *SPU 2017*. Nonetheless, these trends in revenues should be closely monitored and the reasons for any divergence from expectations should be determined.

### **Expenditure 2017**

Total General Government expenditure forecasts for 2017 have been revised down in the *SPU* from budget-day forecasts by €0.15 billion. This revision is due largely to methodological issues, including base effect changes following official CSO outturns, rather than substantial revisions to expected expenditure. *SPU 2017* notes that the *Revised Estimates for Public Services (REV) 2017* outline the allocations for all government departments for 2017.

The decision to bring forward pay increases related to the Lansdowne Road Agreement will increase pay costs across departments in 2017. The costs of this decision, estimated at €0.12 billion, are to be met within current allocations at present, although, *SPU 2017* notes that the ability of departments to meet this cost will be assessed later in the year.

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<sup>60</sup> PQ [22240/17]

<sup>61</sup> Using the data on macro drivers and the estimated impact of policy changes available at the time of *Budget 2017* the impact of these new elasticities on forecasts for 2017 can be estimated. Estimating the expected tax yield for 2017 using the new elasticities suggests, in absence of other judgement factors, PAYE would be estimated as €11 million higher and USC €80 million lower than estimates using the old elasticities.

*Budget 2017* included a 2016 provision for a Christmas Bonus measure of €220 million, which represented an 85 per cent bonus for people in receipt of long term social protection payments.<sup>62</sup> The measure, which was abolished in 2009, has seen a phased reintroduction since 2014; yet in none of these years has such a payment been budgeted for. Unless the Government intends not to pay this in future, spending estimates should make an allowance for it. No provision has been made for the payment of a Christmas bonus in 2017.

In-year spending increases during 2015 and 2016 saw a far looser-than-planned budgetary stance and came on the back of revenue surprises. In-year gross voted spending increases of €1 billion in 2016 and €0.7 billion in 2015, compared to budget-time projections, absorbed the majority of better-than-expected tax revenues during the two years. Such a policy is especially risky when the source of the additional revenue is, to a large extent, Corporation Tax. For 2017, spending is within plans to date. Total gross voted expenditure had grown 3 per cent year-on-year, as compared to a projected growth rate for 2017 as a whole of 3.9 per cent.

Spending Reviews provide an opportunity to examine the level of ongoing baseline expenditure separately from incremental changes. This process can inform expenditure prioritisation. *Budget 2017* announced a Spending Review to take place before *Budget 2018* this autumn. This provides an opportunity for the Government to examine existing schemes in terms of rationale, efficiency and effectiveness, and to identify areas of expenditure pressure and areas for potential savings. This can also help with expenditure planning and reducing cost pressures. *SPU 2017* notes that the review process will change from previous iterations, as the 2017 review will begin a rolling system that focuses on a selective set of reviews.

### **Box E: Spending Reviews<sup>63</sup>**

This Box discusses the approach to spending reviews in the Irish context and the lessons to be learned from international best practice. Spending reviews are a mechanism by which savings can be achieved through examination of baseline expenditure (Robinson, 2013). An effective spending review provides a means of assessing ongoing expenditure to assess sustainability in view of increasing spending pressures due to demographic pressures and the increasing cost of provision of public services (Baumol's disease) (IMF, 2014, Howlin et al., 2016).<sup>64</sup>

#### **Recent Spending Reviews in Ireland**

Three spending reviews have been conducted in Ireland since 2008: the 2009 *Report of the*

<sup>62</sup> Of social protection or pensions payments.

<sup>63</sup> This box draws largely on analysis from the OECD Working Party of Senior Budget Officials document on Spending Reviews, GOV/PGC/SBO(2013)6, 3'th Annual Meeting of OECD Senior Budget Officials, Paris 3-4 June 2013. Available at: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/SBO\(2013\)6&doclanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/SBO(2013)6&doclanguage=en)

<sup>64</sup> Baumol's disease refers to the phenomenon whereby costs of government services may tend to disproportionately increase relative to the average price of goods in the economy.

*Special Group on Public Service Numbers and Expenditure Programmes* (Department of Finance, 2009); the *Comprehensive Review of Expenditure (CRE) 2012-2014* (Department of Public Expenditure and Reform, 2011); and the *CRE 2015-2017* (Department of Public Expenditure and Reform, 2014). The *CRE 2012-2014* established that spending reviews should take place on a periodic basis to support the Medium Term Expenditure Framework and to inform resource allocation, by examining baseline expenditure (Howlin *et al.*, 2016). In addition to departmental submissions, the *CRE 2012-2014* published six thematic evaluations, as follows:

- Enterprise support,
- Labour Market Activation and Training,
- Overview of Legacy Expenditure Programmes and Policy Reforms including opportunities for rationalising State Agencies,
- Publically-Funded Local Transport Systems,
- Rationalising Multiple Sources of Funding to Not-for-Profit Sector,
- Social Housing Supports.

Comparatively few analytical papers were published with *CRE 2015-2017*, these included:

- Behavioural Economics,
- Future Risks Associated with Climate Change Finance,
- The Cost of Public Services.

*Budget 2017* announced plans for a spending review to take place in advance of *Budget 2018*, and background analysis for this is currently being undertaken.

### **The Design of Spending Reviews**

Spending reviews have become increasingly used in public expenditure management internationally. The design and parameters of spending reviews may differ depending on economic context and fiscal objectives. The OECD (2013) undertook an examination of spending reviews and best practices internationally. The study outlined two of the dimensions under which reviews may differ: the nature of the savings, and the scope of the spending review.

#### **1. The Nature of Savings**

Spending reviews can be broadly categorised under two headings: (i) efficiency and (ii) strategic reviews:

- (i) An efficiency review seeks to achieve savings by altering the way in which public services are delivered while still producing the same output. It does not assess the rationale for existing expenditure.
- (ii) A strategic review on the other hand examines expenditure with a view to assessing its continued relevance. Savings are achieved by altering the quantity or quality of outputs or transfers where the scheme is deemed no longer relevant.

The UK 2010 Comprehensive Spending Review provides an example of an efficiency and strategic review which aimed to decrease public expenditure to achieve fiscal consolidation. In contrast the Netherlands 2010 Comprehensive Expenditure Review predominantly sought to achieve strategic savings. Reviews of efficiency and overall strategy in relation to expenditure provide a key input for the achievement of Government fiscal and macro objectives. This requires persistent analysis of baseline expenditure identifying key areas of underlying demand pressure in the medium and longer term. Therefore, a spending review should seek to achieve both efficiency and strategic savings.

#### **2. The Scope of Spending Reviews**

In terms of scope, spending reviews may be comprehensive or selective. A comprehensive review, in contrast to what may be inferred by the name, does not examine all expenditure programmes. Rather, the term “comprehensive” refers to how the topics chosen to be reviewed are selected. In a comprehensive review, topics are not selected prior to the review process and

all departments are examined to identify the most important areas where savings can be made. In contrast, a selective review is one where a list of topics for review is drawn up *ex-ante*. Selective reviews focus more on sustainability of expenditure than on expenditure reductions. Topics may be selected on an automatic rolling basis, or a discretionary basis.

Recently there has been a resurgence in popularity of comprehensive expenditure reviews internationally, with a focus on fiscal consolidation. However, international best practice suggests a selective review, which is more targeted, and is a more effective means of assessing sustainability and expenditure management. This selective approach is common among the established spending reviews conducted internationally, such as the '*Comprehensive Review of Expenditure*' in The Netherlands and the '*Special Studies*' in Denmark (Blöndal and Ruffner, 2004).<sup>65</sup> A more selective approach should make more efficient use of the evidence available. Aligning the three year round of Value for Money Reviews to the selective review topics list could improve the evidence base for decision making.<sup>66</sup> *SPU 2017* indicated that the next Spending Review will move to a rolling selective review process.

### Spending Reviews in the Budgetary Process

Spending reviews act as a complementary tool to the budgetary process for expenditure management. They provide a mechanism to combat incrementalism (i.e., an excessive focus on new expenditure items as opposed to existing expenditure) by

- Presenting an analysis of the baseline expenditure,
- Ensuring that the whole of government expenditure is considered in policy decisions,
- Providing an input into the estimates process where new expenditure can be considered,
- Providing opportunities for the efficient reallocation of spending across and within sectors (Marcel, 2012).

Thus, spending reviews improve the budgetary process by separating the generation of fiscal space, and through the evaluation of existing spending, from the allocation of resources and consideration of new expenditure.

In line with good public expenditure management the MTEF sets the provisions for Multiannual Expenditure Ceilings. The *CRE 2012-2014* and *CRE 2015-2017* notionally set multiannual expenditure ceilings for the next three-year period. However, these ceilings are being consistently revised upwards in the budget estimates process, which highlights their inefficiencies as credible ceilings and their propensity to incentivise incrementalism.

As outlined in Box I, Ministerial Expenditure Ceilings should be set to take account of underlying demand pressures while also encouraging efficient expenditure management and prioritisation within these ceilings. Spending review evaluations can inform these ceilings. A selective expenditure review, supported by an evidence base of evaluations such as the Value for Money Reviews, will provide important information on efficiency and strategic savings to facilitate prioritisation within expenditure ceilings.

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<sup>65</sup> Although this review is called a Comprehensive Review it is more selective in approach with a list of policy areas to be reviewed chosen *ex-ante*. [http://ec.europa.eu/economy\\_finance/events/2014/20140211-meeting/documents/session3tim\\_en.pdf](http://ec.europa.eu/economy_finance/events/2014/20140211-meeting/documents/session3tim_en.pdf)

<sup>66</sup> Under the Public Spending Code all Departments are required to carry out Value for Money Policy Reviews (VfM) and Focused Policy Assessments (FPAs). These reviews examine specific areas of expenditure and address the rationale and objectives, efficiency and effectiveness of the scheme. Departments are required to carry out three VFMs/FPAs in a three year cycle. The topics selected are brought to Government before the cycle begins.

### 3.4 SPU 2017 Medium Term Forecasts (2018-2021)

#### General Government Balance 2018-2021

Turning to the medium term, *SPU 2017* outlines a slight revision to the General Government Balance from the *Budget 2017* forecast. For 2018, an improvement in the deficit of 0.3 percentage points relative to 2017 is indicated, with a projected deficit of 0.1 per cent of GDP. A surplus of 0.1 per cent is projected in 2019, increasing to 0.6 per cent in 2020 and 1 percent in 2021. The improvement is at a slightly weaker pace than outlined in *Budget 2017*, and partly reflects reduced Central Bank capital gains that more than offset an increase in the Social Investment Fund surplus.

Total revenues, excluding one-offs, are expected to grow over the forecast period (2018-2021) at an average rate of 3.8 per cent, whereas total expenditure, excluding one-offs, is growing at an average of 2.4 per cent over the period 2018 to 2021. Primary expenditure shows higher growth at an average of 2.9 per cent. This slows marginally in the later forecast years from 3 per cent in 2018 to 2.7 per cent by 2021. Combined with increasing revenue growth in later years (averaging 4 per cent over 2020 to 2021), this leads to an improving General Government Balance relative to preceding years. The Government's stated policy of fully using projected fiscal space under the EU rules implies that, on average, spending will grow at a slower rate than revenues by about 1.3 percentage points.<sup>67</sup>

#### Expenditure 2018-2021

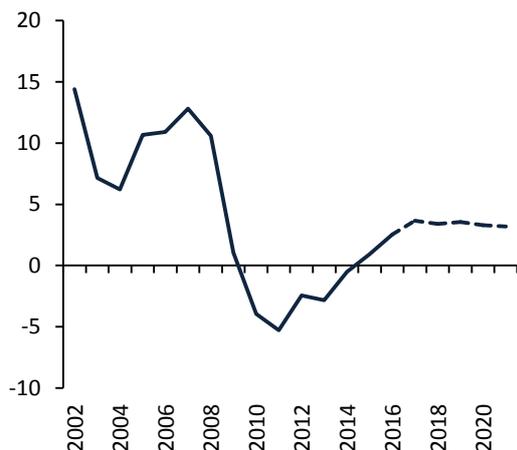
Expenditure is planned to increase over the medium term, while complying with the fiscal rules. *SPU 2017* notes the establishment of a Rainy Day Fund following the achievement of a balanced budget in 2018, and sets aside €1 billion each year 2019-2021 for the Fund. This €1 billion is counted as Exchequer spending, but does not affect the General Government Balance as the amounts allocated remain within the General Government sector. This will drive a wedge between Exchequer and General Government spending.

Following the period of consolidation of the public finances, expenditure has begun to increase again since 2015. The average annual growth rate of total expenditure planned in *SPU 2017* for the period 2018 to 2021 is 2.4 per cent. Figure 3.9a shows the growth in gross voted expenditure over the period 2002 to 2017 using *SPU 2017* forecasts for the period 2017 to 2021.

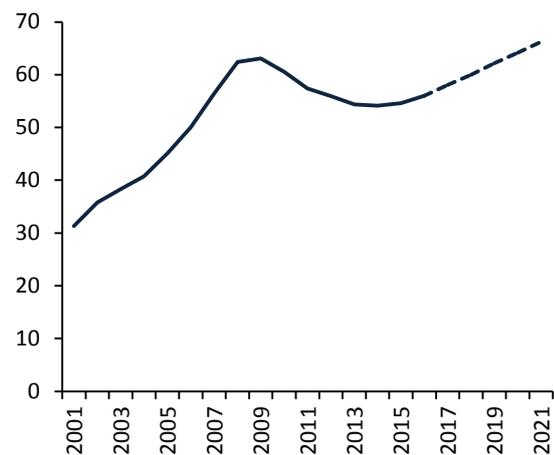
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<sup>67</sup> Excluding one-offs (see Box H in Chapter 4).

**Figure 3.9a: Gross Voted Expenditure % Change (Year-on-Year)**



**Figure 3.9b: Gross Voted Expenditure € Billion**

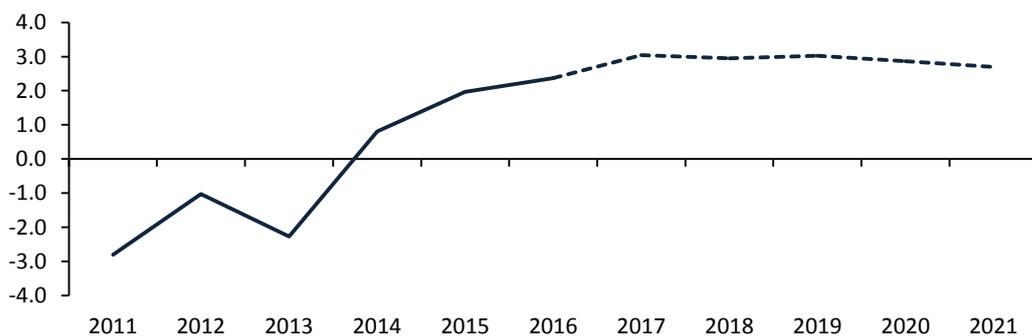


Sources: Department of Finance; Department of Public Expenditure and internal IFAC calculations.  
 Note: Gross voted expenditure as per DPER databank. Data are 2016-2021, as per SPU 2017.

Gross voted expenditure growth in 2016 reached 2.5 per cent. Figure 3.9b shows the level of gross voted expenditure over the period 2001 to 2016 and the SPU forecast for period 2017 to 2021. In 2016, gross voted expenditure was equivalent to 89 per cent of peak expenditure levels in 2009. Expenditure is planned to surpass this peak in 2020.

Stripping out expenditure in relation to interest payments and excluding one-off expenditure items, primary expenditure began to rise in 2014 and is projected to continue to grow at roughly 3 per cent per annum over the forecast period (2017 to 2021) (Figure 3.10).<sup>68</sup> This represents a fall, as a share of GDP, from 25.7 per cent in 2016 to 23.5 per cent in 2021.

**Figure 3.10: Growth in Primary Expenditure (excluding one-offs)**  
 Percentage change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.  
 Note: Primary Expenditure equals total expenditure less interest repayments on government debt and one-offs. One-offs are examined in Box H of Chapter 4 and relate to those identified by the Council as applicable.

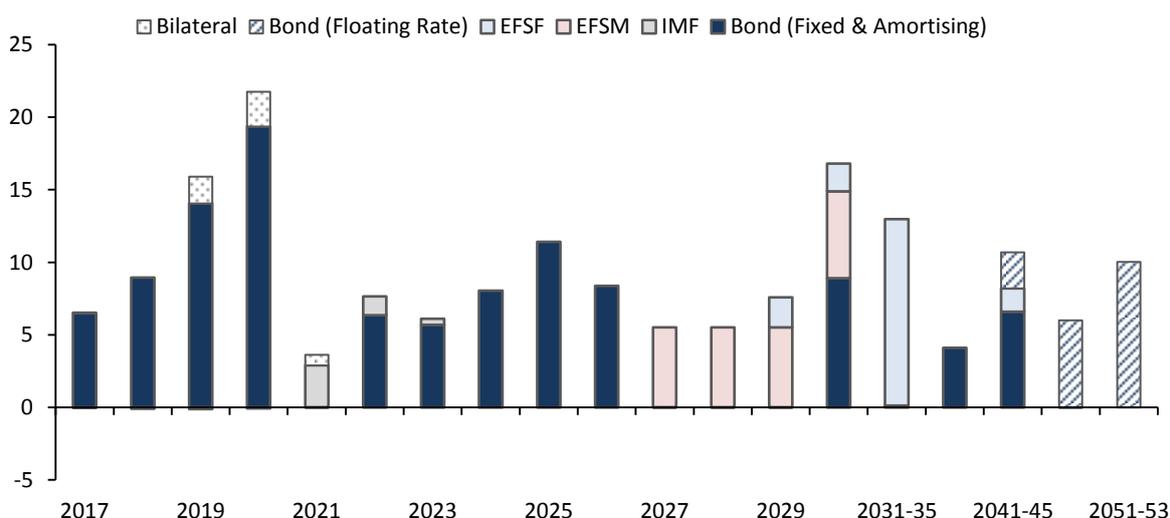
<sup>68</sup> One-offs are examined in Box H of Chapter 4 and relate to those identified by the Council as applicable.

Given the pattern of upward revision to expenditure in recent years, it may be expected that current spending plans will be revised up. However, considering the limited fiscal space available, the scope for additional spending increases over and above amounts already allocated will be somewhat constrained, especially in view of planned discretionary revenue measures.

Interest payments on government debt also form an important part of expenditure over the medium term. The stock and maturity profile of debt, along with interest rates, will determine this expenditure. Figure 3.11 shows the National Treasury Management Agency (NTMA) maturity profile of Ireland’s long-term and marketable debt as at end-March 2017. This profile has been adjusted to take account of the extensions of the European Financial Stabilisation Mechanism (EFSM) loans which have been agreed. Although some of the EFSM loans have yet to be refinanced, these data provide an indicative profile of maturity, including this extension.

**Figure 3.11: Maturity Profile of Ireland’s Long Term Marketable and Official Debt as at End-March 2017**

€ Billions



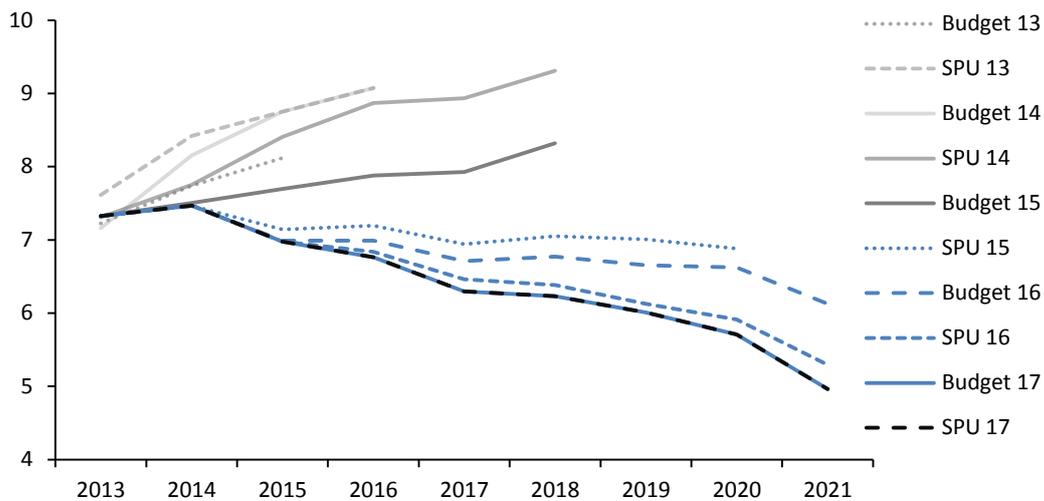
Sources: NTMA; Department of Finance; and internal IFAC calculations.

Note: Data are adjusted to provide an indicative profile given the seven year extension of the EFSM loans, to bring the weighted average maturity from 12.5 years to 19.5 years. Ireland is not expected to refinance these loans before 2027. Therefore, the indicative maturity of the EFSM loans has been placed in the years 2027-2031, but may be subject to change.

Interest costs on government debt have been on a declining trend in recent years and this is projected to continue over the forecast period (2017 to 2021). Figure 3.12 shows the improvement in forecast and actual interest costs due to low interest rates globally; agreed reductions in interest rates on official borrowing; expansionary monetary policy by the ECB, including the Public Sector Purchase Programme; and the early repayment of IMF loans and other debt restructuring. *SPU 2017* keeps interest cost projections unchanged from those forecast in *Budget 2017*, with interest expenditure forecast to fall over the forecast horizon (2017-2021).

**Figure 3.12: National Debt Cash Interest Projections**

€ Billions

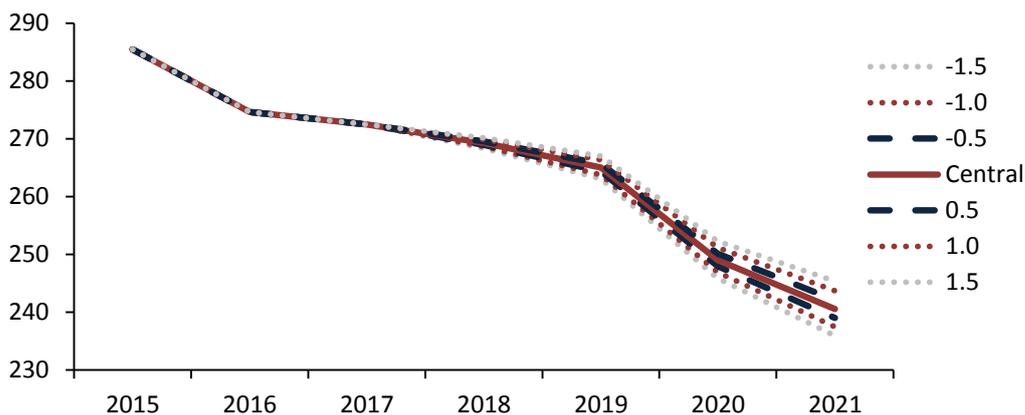


Sources: Department of Finance; internal IFAC calculations

Interest rate shocks pose less of a risk to the public finances following recent maturity extensions and interest rate reductions (Figure 3.13). At high debt levels, however, there are still risks that self-reinforcing fears in bond markets might take hold and there are substantial maturities to be rolled over during 2018-2021 (some €50 billion; 16 per cent of GDP). As noted in the *November 2016 FAR* (IFAC 2016c), risks may arise from external shocks, while developments in relation to international monetary policy could negatively impact Irish borrowing costs.

**Figure 3.13: Gross Debt Paths**

General Government Basis (% Total Revenue)



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

Note: Lines depict how far the debt-to-revenue would be pushed away from the baseline scenario under different shocks to marginal interest rates in each year. Changes in EDP debt instrument assets for forecast years are assumed to be in line with projected changes in cash balances.

Expenditure on public sector pay will impact on the dynamics of total spending over the medium term. Negotiations in relation to an extension to the pay agreement have been entered into by the Department of Public Expenditure and Reform, following the recent publication of the *Report of the*

*Public Service Pay Commission* (2017).<sup>69</sup> Given existing pay pressures, public sector pay forecasts are likely to rise over the medium term. Any resulting increases in pay expenditure will exert some upward pressure on overall spending plans, in the absence of additional efficiency or other savings from other non-pay expenditure. Any such costs would likely take effect over the medium term (i.e., from 2018 at the earliest as opposed to from 2017). The gross public sector pay bill net of the pension-related deduction was €15.6 billion in 2016 (Public Service Pay Commission, 2017). A one per cent increase in pay would – all other things being equal – lead to an approximate €0.15 billion additional expenditure annually.

The medium-term expenditure forecasts (2018 to 2021) in *SPU 2017* are undertaken on an *ex-post* basis, taking account of the fiscal space that will be available for allocation in the coming years. The Council welcomes this improvement to the projection methodology. The forecasts allow for growth in expenditure to account for some demographics pressures, the Lansdowne Road Agreement, and capital spending contained in the Infrastructure and Capital Investment Plan 2016 to 2021. Some €5.14 billion additional capital expenditure is due to be allocated under the Review of the Infrastructure and Capital Investment Plan 2016-2021 which is due to take place in 2017. Therefore, it may be expected that the capital expenditure departmental ceilings will be revised; however, the General Government Gross Fixed Capital Formation, as forecast in *SPU 2017*, has taken account of the additional funding. As such there is some inconsistency between the expenditure ceilings and the forecasts, which should be resolved to improve the credibility of the ceilings.

#### **Box F: Public Capital and Investment Expenditure**

This Box examines recent trends in public capital and investment expenditure in Ireland on a gross and net basis. *SPU 2017* plans for an increase of €5.14 billion in capital expenditure, consistent with the review of the *Infrastructure and Capital Investment Plan 2016-2021*. This expenditure should increase the stock of public infrastructure in Ireland somewhat after a period of consolidation in the face of estimated depreciation. However, net fixed capital formation will still remain below average levels over the 2000 to 2008 period.

##### **Recent trends in Gross Fixed Capital Formation**

In the lead-up to the crisis investment in public capital, as a share of primary expenditure, was consistently over 10 per cent in the period 2000 to 2008, with a peak of 13.5 per cent in 2001 (Figure F.1). The consolidation of the public finances saw public investment roughly halved, as a share of primary expenditure, over the following years, with gross fixed capital investment in 2016 approximately half of its peak level in 2008. It is important to note that although investment levels fell sharply over the crisis period, considerable capital investment in the years running up to 2008 did much to address infrastructural deficits in the State (Kennedy, 2016).

*SPU 2017* plans an increase in investment as a share of primary expenditure over the period 2017-2021, reaching 9.4 per cent in 2021. This proportion includes the additional €5.14 billion to

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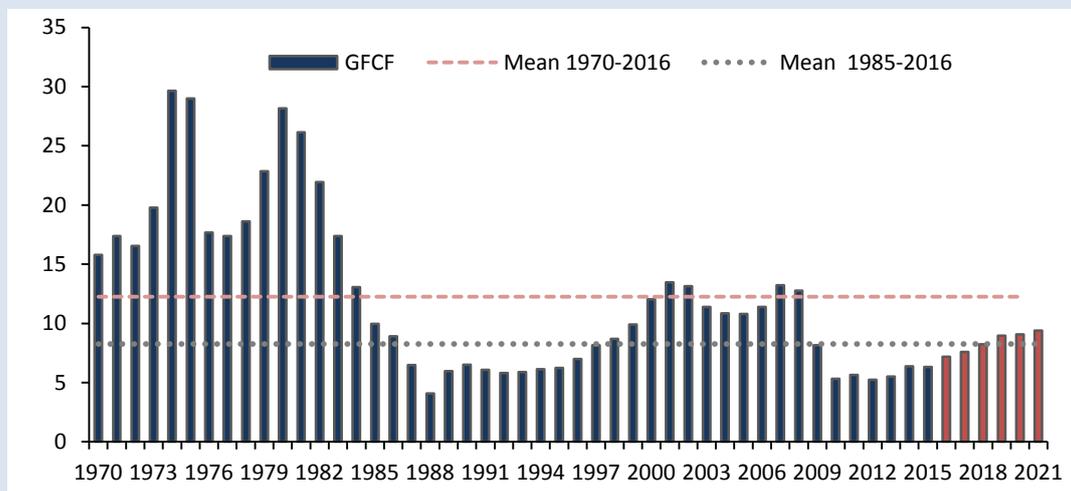
<sup>69</sup> <http://www.per.gov.ie/en/minister-donohoe-welcomes-report-of-the-public-service-pay-commission/>

be allocated in the review of the *Infrastructure and Capital Investment Plan 2016-2021*.

Figure F.2 shows Ireland’s public capital stock per capita in contrast to select comparator countries. Ireland’s public capital stock was above all the comparator countries, bar the UK, for most of the period (1998-2014).

### Figure F.1: Public Investment

General Government GFCF as a Share of Primary Expenditure (1970-2021)

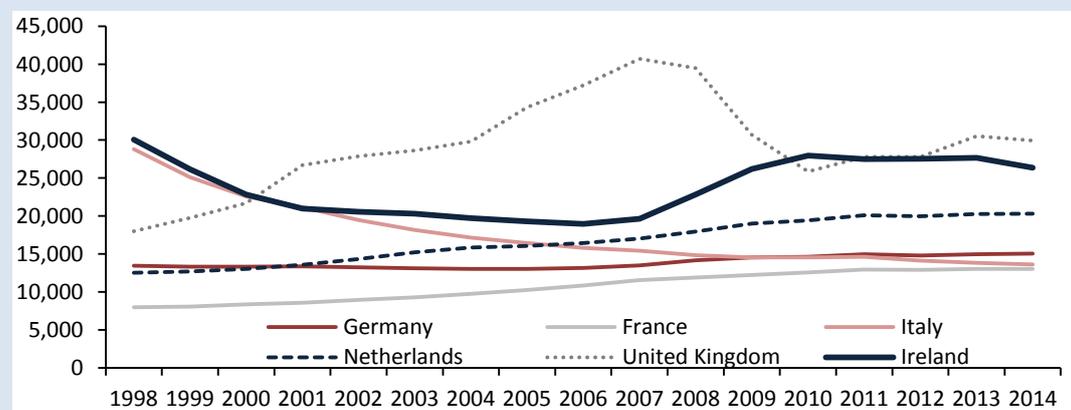


Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: Primary Expenditure equals total expenditure less interest repayments on government debt. Red bars indicate SPU 2017 forecasts, which take account of the planned allocation of €5.14 billion under the Review of Capital Plan.

### Figure F.2: International Comparison Public Capital Stock

Real Non-Financial Assets, € per capita



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

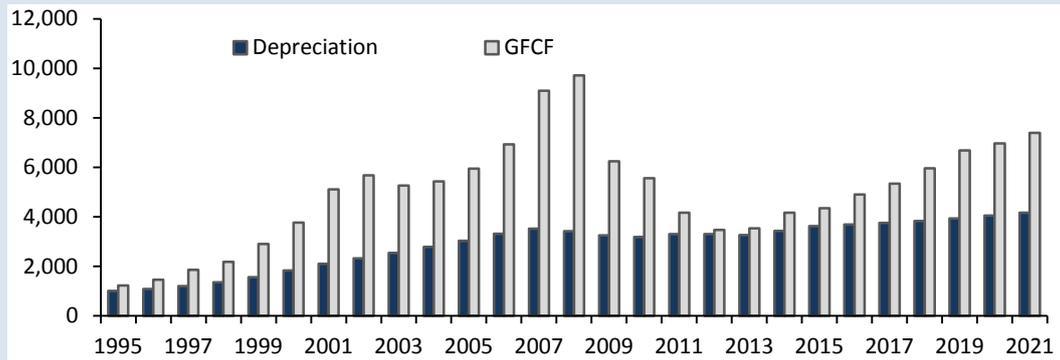
Note: Irish Non-Financial Assets computed using the Perpetual Inventory Model (PIM) method (see Kennedy, 2016); population is as of 1 January. In practice, stock estimates are comprised of fixed assets in public administration and defence, education, health and local authority housing.

### Net Fixed Capital Investment

Net fixed capital investment describes public investment in capital, less depreciation of assets. To increase the level of the public capital stock, gross investment would have to exceed depreciation. Figure F.3 shows the trends in gross investment and estimated depreciation in Ireland for recent years and the forecast period covered by SPU 2017 (2017-2021).

**Figure F.3: Gross Public Investment and Depreciation**

€ Millions (1995-2021)



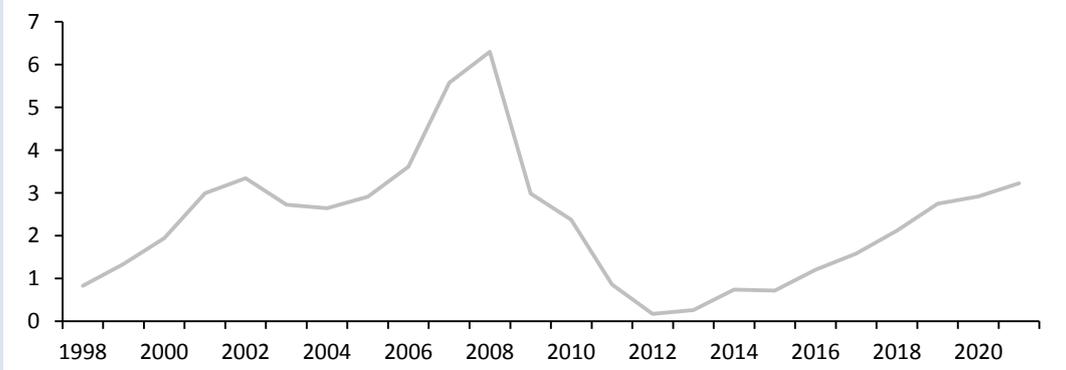
Sources: CSO, SPU 2017 Internal IFAC calculations

Note: Depreciation (GG Consumption of Fixed Capital (CFC)) is assumed to be 4 per cent per annum over the period 2016-2021. GFCF forecasts 2017-2021 as per SPU 2017.

From 2000 to 2008 investment far exceeded depreciation of fixed capital. However, since 2008, the fall in investment has led to a substantial decrease in this gap, with investment and depreciation approximately equal in 2013. This implies that investment was only enough to maintain the existing stock, rather than to increase it. Increased public investment over the forecast period (2017-2021) is expected to lead to an increase in net fixed capital formation. However, by 2021, net fixed capital formation is expected to reach 91 per cent of the average level over the period 2000 to 2008 (a period in which considerable capital investment took place addressing previous infrastructural deficits). Figure F.4 shows net public investment over the period 1998 to 2021.

**Figure F.4: Net Fixed Capital Formation**

€ Billion, 1998-2021



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

Note: Depreciation (GG Consumption of Fixed Capital (CFC)) is assumed to be 4 per cent per annum over the period 2016-2021. GFCF forecasts 2017-2021 as per SPU 2017.

Gross fixed capital formation is forecast to grow at an average of 9 per cent per annum over the forecast period (2017 – 2021). After a prolonged period of negative growth (an average of -5 per cent 2008-2016) it may be expected that a certain degree of unmet demand is present. Given this limited level of investment since 2008, maintaining such low growth in capital expenditure may be difficult in view of expected economic growth and demographic projections. For example, the Department of Transport, Tourism and Sport (2015) estimated a €300 million gap to maintain the land transport system.<sup>70</sup> One area where investment pressures might be expected to arise is in relation to the housing sector where supply is understood to have fallen short of estimated annual demand in recent years (see Chapter 2).

<sup>70</sup> <http://igees.gov.ie/wp-content/uploads/2015/04/Transport-Trends-2015-Final.pdf>, Department of Transport Tourism and Sport (2015), Transport Trend, An Overview of Ireland's Transport Sector.

Budget plans and projections will be more robust if built on a good understanding of the drivers of expenditure and how they are expected to evolve over the medium term. The *Mid-Year Expenditure Report 2016* noted progress of work in developing a methodology to “separately model the evolution of volume/demand and price impact” on public expenditure. This methodology along with any findings of the upcoming spending and capital reviews could provide a valuable input to future medium-term expenditure forecasts and improve the basis on which fiscal forecasts can be assessed.

While the recent progress in the presentation of budgetary forecasts on an *ex-post* basis is welcome, further improvements could enhance the quality the medium-term expenditure forecasts presented in the budget and expenditure reports. The Council maintains, as noted in previous *Fiscal Assessment Reports*, that an estimate of the cost of maintaining today’s level of public services and benefits in real terms in future years should serve as an important input into the expenditure planning process. Producing such a scenario would enrich the evidence base for budgetary decisions. The Council’s Stand-Still expenditure scenario (Box G) provides an example of such an exercise. The Stand-Still scenario aims to provide an estimate of the bottom-up pressures, taking account of demographics, inflation and the Lansdowne Road Agreement.

### Box G: The Council's Stand-Still Medium Term Expenditure Scenario

This Box updates the medium-term scenario for government expenditure contained in IFAC's November 2016 *Fiscal Assessment Report* (IFAC 2016c). The Stand-Still approach is intended as an illustrative exercise and should not be seen as an alternative expenditure forecast to that outlined in *SPU 2017*. The exercise outlines the cost of maintaining today's level of public services and benefits in real terms, given demographic costs and price changes. It is important to note that the Council is not suggesting that automatic or semi-automatic indexation should be adopted as a policy. Instead the scenario provides information as an input into the policy decision process through which the ultimate expenditure forecasts are produced.

In constructing the medium-term Stand-Still scenario, government expenditure is split into five headline components: health; education; social payments (including social welfare pensions); national debt interest; and other. The methodology used in each case is described in Box E of the June 2016 *Fiscal Assessment Report* (IFAC, 2016a).

The Stand-Still approach does not consider possible efficiency gains or Government policy changes that could lead to expenditure savings over the timeframe. Rather, the scenario illustrates the cost of maintaining today's level of public services in the absence of such efficiency measures and/or policy changes.

Table G.1 provides a comparison between the fiscal space allocated to current expenditure (including pre-committed amounts) implicit in *SPU 2017* and the Council's Stand-Still scenario for current expenditure.<sup>71</sup>

The Council's Stand-Still scenario shows the estimated increases in current spending if demographic pressures were fully accommodated for and if spending moved in line with inflation as forecast in *SPU 2017* by the Department of Finance. In this scenario, gross voted current spending would increase by €5.96 billion over the period 2018 to 2021.

For the same period (2018 to 2021), the Government has pre-committed €2.27 billion for the cost of: (i) public sector pay arrangements under the Lansdowne Road Agreement (2018); (ii) some estimated demographic pressures; and (iii) to cover other pre-committed spending measures (amounting to €0.16 billion).<sup>72</sup>

Comparing total pre-committed expenditure increases (before any indicative allocations of fiscal space are considered) with the Stand-Still estimates implies that €3.69 billion of the available fiscal space would be required to fully account for demographic pressures and the additional costs of maintaining real services and benefits, should it be decided these are to be maintained. The *SPU* indicatively allocates some €3.6 billion of fiscal space to current spending over the same period (2018-2021). This implies that – in the absence of policy changes, or changes to macroeconomic spending drivers – fully accommodating estimated demographic pressures and the cost of maintaining real public services and benefits would absorb all of the fiscal space currently budgeted for expenditure increases from 2018-2021, and that an additional €0.09 billion would be required. However, it is important to note that the Stand-Still estimates do not take account of any other pre-committed expenditure increases included in *SPU 2017* and are only based on the estimated cost of fully accommodating demographic changes and price increases. Additionally, live register savings noted in *Expenditure Report 2017* could offset the pre-committed gross voted current expenditure increases noted should these savings be realised.

Relative to the Council's previous Stand-Still scenario (IFAC 2016c), the estimated increase in gross voted spending required to stand still is €0.36 billion higher, primarily because of higher price inflation, as forecast in *SPU 2017*. This is offset, in part, by lower demographic pressures, given new Census data, which show changes in the composition of the population.

<sup>71</sup> Note that the Stand-Still scenario assumes the same levels of capital expenditure for all periods as allocated by the Department.

<sup>72</sup> This relates to pre-committed EU programme funding covered under the Rural Development Fund.

**Table G.1: Comparison of Estimated Stand-still Current Expenditure and Allocated Fiscal Space**

€ Billion

	2018	2019	2020	2021	Total (2018-2021)
<b>Gross Voted Current Spending - IFAC Stand-still (A)</b>	1.00	1.49	1.71	1.76	5.96
of which: Demographics	0.38	0.47	0.61	0.62	2.09
Prices	0.62	1.02	1.10	1.14	3.88
<b>Budget 2017 Net Pre-Committed Gross Voted Current Expenditure (B)</b>	0.77	0.50	0.50	0.50	2.27
of which: Demographics	0.41	0.46	0.46	0.46	1.79
Lansdowne Road Agreement	0.32	0.00	0.00	0.00	0.32
Other	0.04	0.04	0.04	0.04	0.16
<b>Amount of Net Fiscal Space Needed to Stand Still C=(A-B)</b>	0.23	0.99	1.21	1.26	3.69
<b>Net Fiscal Space Allocated to Current Expenditure (Budget 2017/SES 2016) (D)</b>	0.60	1.00	1.00	1.00	3.60
<b>Difference Between Net Fiscal Space Needed to Stand Still and Net Fiscal Space Allocated to Current Expenditure Increases E=(D-C)</b>	0.37	0.01	-0.21	-0.26	-0.09

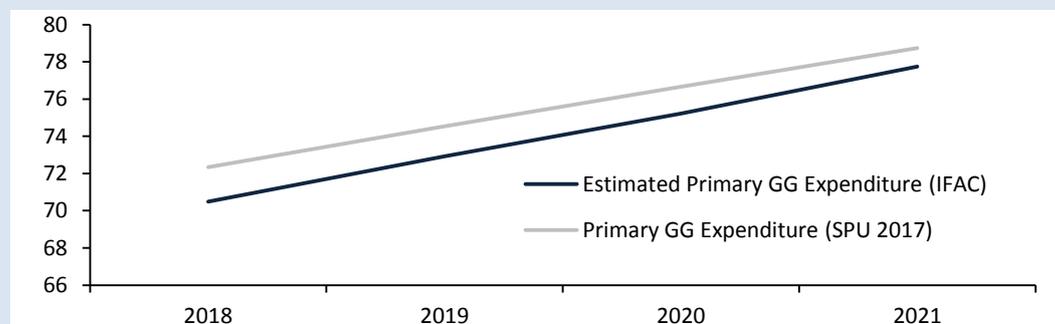
Sources: Department of Finance; DPER; and internal IFAC calculations.

Note: (A) IFAC stand-still gross voted current spending is attained using a bottom up approach based on the latest expenditure estimates for 2016, a cohort component demographics model and the latest macroeconomic and inflation forecasts from *SPU 2017*. (B) *Budget 2017* pre-committed spending takes the demographics and pre-committed spending figures as in *Budget 2017* (held constant from 2019-2021) which remained unchanged in *SPU 2017*. The net fiscal space allocated to current expenditure (D) takes the fiscal space allocated in *SES 2016* and updates it for the *Budget 2017* package.

Figure G.1 illustrates the scenarios for primary General Government expenditure. The IFAC scenario which illustrates the cost of maintaining today's level of public services in the absence of efficiency measures and policy changes remains below the expenditure scenario as per *SPU 2017* for the entirety of the period (2018 to 2021).

**Figure G.1: Scenarios for Government Expenditure (2018-2021)**

€ Billions



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

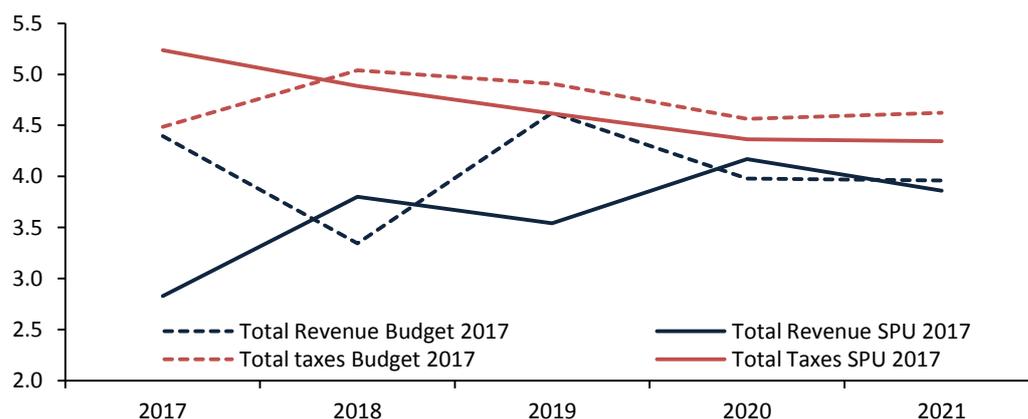
Note: IFAC expenditure scenario illustrates the estimated cost of fully accommodating demographic changes and price changes.

## Revenue 2018-2021

Total general government revenues are forecast to grow at an average annual rate of 3.8 per cent from 2018 to 2021. This is primarily driven by total tax revenue growth, which moderates over the medium term (from 4.8 per cent in 2018 to 4.4 percent in 2021).<sup>73</sup> Non-tax revenues are expected to fall over the medium term due to lower capital gains from Central bank receipts and reductions in semi-state dividends and other receipts.

General Government revenue forecasts growth rates have been revised slightly from *Budget 2017* (Figure 3.14). Total General Government revenues are forecast to grow at a slightly faster rate in 2018, but on average 0.1 percentage points slower than predicted on budget day, over the period 2018-2021. This reflects downward revisions to both current tax revenue and non-tax revenue over the forecast period. The downward revisions to total tax revenue growth over the medium-term are in line with the downward revisions to GDP growth (Chapter 2).

**Figure 3.14: Revenue Growth Forecast *Budget 2017* vs *SPU 2017***  
% Growth (2017-2021)



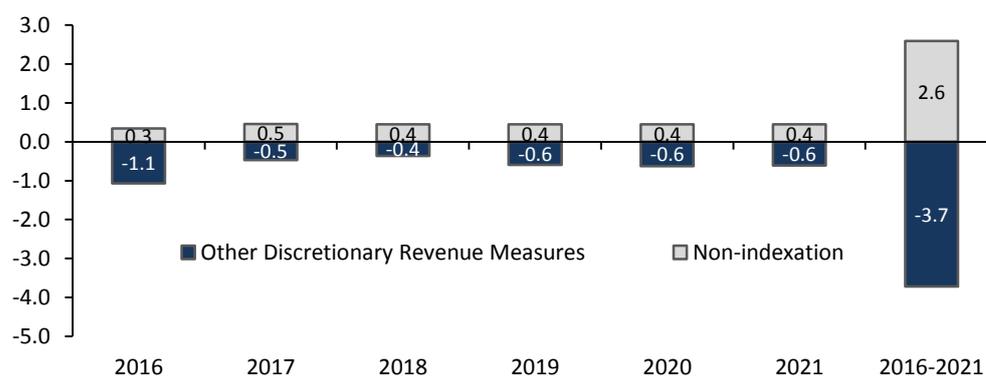
Sources: Department of Finance; and internal IFAC calculations.  
Note: Forecasts as per *Budget 2017* and *SPU 2017*.

Current tax forecasts remain broadly unchanged from *Budget 2017*, although this reflects a downward revision in the predicted annual average growth rate by 0.2 percentage points to 5.2 per cent over the forecast horizon 2018-2021. While Income Tax and VAT are expected to continue contributing the most to total revenue, Corporation Tax will continue to play a considerable role and is expected to maintain approximately 15 per cent of total tax revenues. As outlined in Appendix E over the medium term (2018 to 2021), the macro driver effect plays a positive role in all tax heads, and a negative policy effect is evident for PAYE and USC due to revenue-reducing discretionary measures.

<sup>73</sup> Total Tax revenue here refers to General Government receipts and is the sum of Taxes on Production and Imports, Current Taxes on Income, Wealth and Capital Taxes as per *Budget 2017* and *SPU 2017*.

Figure 3.15 shows the estimated impact of discretionary revenue measures introduced in *Budgets 2013 to 2017*, over the period 2016 to 2021 (i.e., carryover effects from earlier years' budgets are reflected). This is an illustrative exercise. The plans outlined in *SPU 2017* are consistent with an assumed use of fiscal space available over the forecast horizon that ultimately will be a matter for decision with each budget.<sup>74</sup> Discretionary revenue measures that are not the result of non-indexation are estimated to have a cumulative revenue-reducing impact of €3.7 billion from 2016 to 2021. Non-indexation is estimated to have a cumulative revenue-raising impact of €2.6 billion.

**Figure 3.15: Impact of Discretionary Revenue Measures and Non-Indexation**  
€ Billions



Sources: Department of Finance; and internal IFAC calculations.

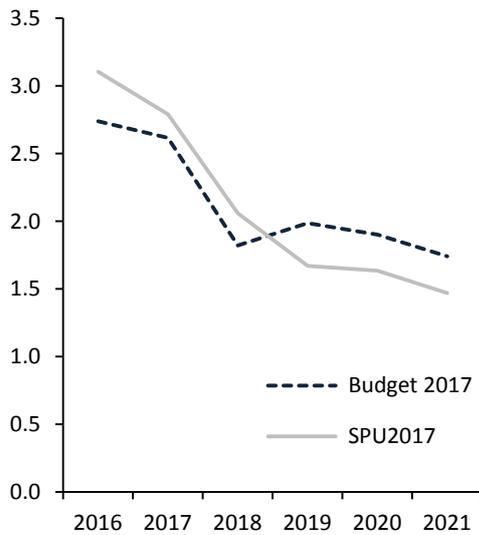
Note: Non-indexation reflects the increase in tax revenues due to tax bands not being indexed so that, as incomes rise, additional tax revenues are generated. Other Discretionary Revenue Measures shown include both discretionary revenue measures introduced that year as well as the carryover impact of measures introduced in previous years.

Over the medium term forecast horizon (2018 to 2021), non-tax revenues are expected to fall on average by 5.8 percentage points faster than forecast in *Budget 2017*, with an average growth rate of -14.3 percent (Figure 3.16a). This fall in receipts is due largely to lower Central Bank surplus income, reflected in the falling property income figures in General Government Receipts and also a decrease in dividends and other receipts (Figure 3.16b). Capital resources are expected to fall over the horizon, as a result of lower financial transactions related to the State's support to the financial sector following recent sales.<sup>75</sup> Although no assumptions have been made about revenues falling based on future sales, this highlights the inherent trade off between revenues from the potential sale of the State's assets in the financial sector, which may be used to decrease debt, and lower revenue growth thereafter.

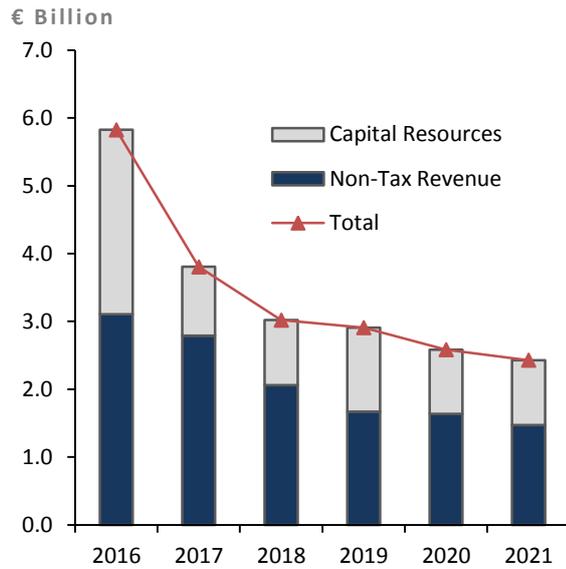
<sup>74</sup> *SPU 2017* projections are provided on an "ex-post" basis. This means that they are based on an indicative allocation of estimated fiscal space for the forecast period. The indicative allocation is consistent with fiscal policy assumptions contained in *A Programme for a Partnership Government*, which indicates an intention to "introduce budgets that will involve at least a 2:1 split between public spending and tax reductions".

<sup>75</sup> Examples of such transactions include contingent capital notes in AIB and PTSB or sale shares in Bank of Ireland.

**Figure 3.16a: Non-Tax Revenue**  
€ Billion



**Figure 3.16b: Non-Tax Revenue & Capital Resources (SPU 2017)**  
€ Billion

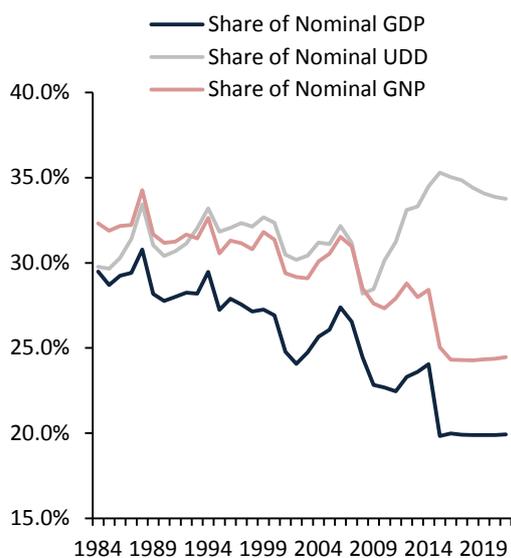


Source: Department of Finance.

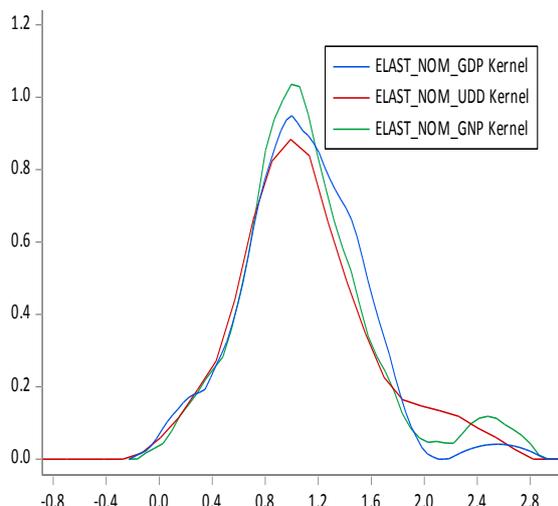
Figure 3.17a provides an examination of total tax revenue as a share of Underlying Domestic Demand (UDD), GDP and GNP. Total Tax Revenue as a share of GDP, GNP and underlying domestic demand all show a decreasing trend, although stabilising somewhat over time, until recent years when tax revenue as a share of underlying domestic demand started to increase. This deviation may, in part, reflect a divergence between domestic economic activity (estimated by UDD) and recent surges in tax revenues, which have been disproportionately driven by Corporation Tax receipts.<sup>76</sup> The *SPU 2017* forecasts imply that tax revenues as a share of all three measures will remain reasonably flat over the forecast period, although the share of underlying domestic demand falls somewhat (2017 to 2021).

<sup>76</sup> Box C of Fiscal Assessment Report, November 2016 highlights the recent disproportionate effect of growth in CT receipts on total revenues in terms of both variability and forecast error contributions. However, the impact of changes in underlying domestic demand which occurred circa 2009 should also be considered here.

**Figure 3.17a: Tax Revenue Share**  
Percentage of UDD, GDP or GNP



**Figure 3.17b: Tax Revenue Elasticities**  
Density of Annual Elasticities (1984-2021)



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

Note: Data for 2016-2021 forecasts as per *SPU 2017*. Elasticities estimated on the basis of data from 1970-2021 for nominal measures of economic activity. Total Revenue not adjusted for discretionary revenue measures. UDD = Underlying Domestic Demand (Chapter 2).

Figure 3.17b shows the distribution of recent elasticities of tax revenues to nominal underlying domestic demand, GDP and GNP. It suggests that an elasticity in the range of 0.8 to 1.2 may be appropriate, depending on the measure of economic activity used. Underlying domestic demand may be serve as a more informative measure than nominal GDP and GNP for the domestic economy, which tends to be more tax-rich in nature. The modal outturn suggests that tax revenues typically have a lower sensitivity to underlying domestic demand, but this distribution is marginally more positively skewed, which may reflect the disproportionate impact that outsized Corporation Tax changes can have on aggregate elasticities.

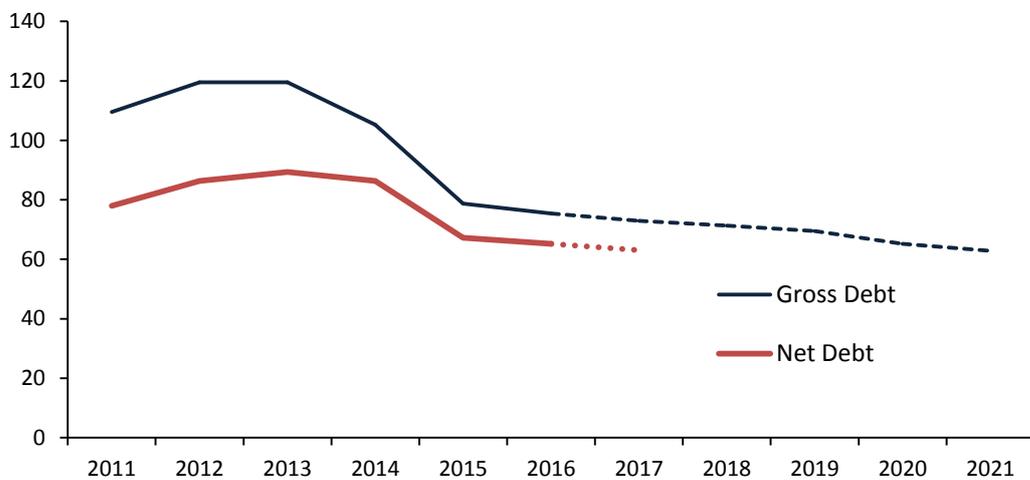
### General Government Debt

Figure 3.18 shows the evolution of General Government Debt as a percentage of GDP (2011 to 2016) and the projections for the period 2017 to 2021 as set out in *SPU 2017*. The debt-to-GDP ratio has been falling since 2012, partially due to increased economic growth and partially due to nominal debt reduction following the liquidation of the IBRC. *Budget 2017* outlined a “target” debt-to-GDP ratio of 45 per cent to be achieved in the mid- to late-2020s. This target is lower than the limit of 60 per cent as set out under the Stability and Growth Pact. However the distortions to GDP from 2015 mean that 45 per cent of the new estimate is almost equivalent to 65 per cent when the effect of methodological issues is considered and when using a hybrid measure that more appropriately captures fiscal capacity for Ireland (see Chapter 1). As of end-2016, the debt-to-GDP ratio stood at 75.4 per cent, 0.6 percentage points lower than the budget day projection. This reduction was facilitated by higher-than-expected nominal GDP growth (an increase in the

denominator). Net debt-to-GDP has also fallen over recent years and is expected to reach 63 per cent in 2017.

While the debt-to-GDP ratio is an important measure of the debt position, its reliability as a measure of debt sustainability has lessened in recent years due to large unexpected changes in nominal GDP. As an interim measure, and until alternative denominators such as GNI\* become available (Box D), the Council has considered alternatives such as debt-to-revenue ratios (Chapter 1). The stock of debt and the maturity profile also provide an important insight to debt sustainability and funding (Figure 3.11).

**Figure 3.18: General Government Debt**  
% GDP



Sources: CSO; Department of Finance; and internal IFAC calculations.  
Note: Data for the period 2017-2021 are projections as per SPU 2017.

### 3.5 Risks

While SPU 2017 has seen improvements in both the macroeconomic and fiscal outlook, substantial risks to the public finances remain. One of the most prominent risks continues to be uncertainty in relation to the external environment, in particular Brexit and possible changes to international economic and fiscal policy. US economic and fiscal policy changes could have a considerable impact on Ireland. Uncertainty with regards to US Corporation Tax changes means there is a downside risk in relation to Ireland's Corporation Tax receipts from US multinational corporations currently located in Ireland. As outlined in Chapter 2, Brexit could have a significant adverse impact on the Irish economy, with negative consequences for the public finances.

As noted in Section 3.2 the volatility and high concentration of Corporation Tax receipts continues to be a source of potential risk to Ireland's fiscal position. The proportion of Exchequer Tax revenue accounted for by Corporation Tax has increased considerably since the large unexpected increase

in 2015, and is now close to peak levels again. Net receipts in 2016 amounted to €7.4 billion, with 37 per cent of this related to the Top 10 payers (€2.8 billion). Given the scale of volatility in this tax head, there is a high degree of uncertainty with regards to the future trajectory of CT growth.

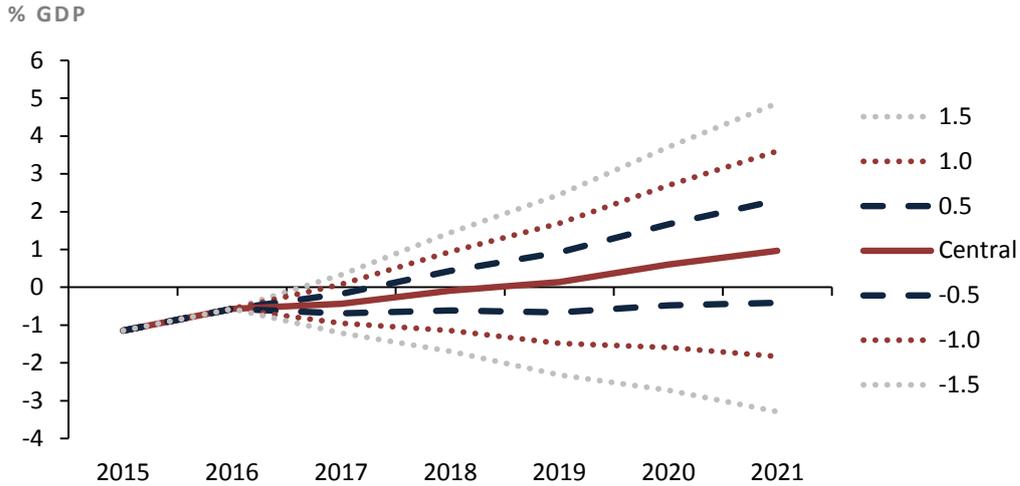
*Budget 2017* noted an underestimation of the first-year costs of the reductions in USC in the *Budget 2016* estimates. Although the Revenue Commissioners have indicated that they are satisfied with the estimates of the impact of policy changes to income tax and USC, the first four months of 2017 saw poor performance of income tax returns. If these impacts have been mis-estimated once again, the forecast for Income Tax may be misleading, and it could potentially lead to a less favourable path for the General Government balance than forecast in *SPU 2017*.

Expenditure pressures also pose a risk to deficit projections. As Box I shows, expenditure ceilings have been subject to frequent revisions, weakening their role as an incentive for expenditure management by Departments. In-year expenditure increases aggravate this risk. Should expenditure pressures lead to additional upward revisions of ceilings, it is likely that a disimprovement in the path for the General Government balance projected in *SPU 2017* will result. The addition of new spending measures in the absence of efficiency gains or other savings could exacerbate the problem.

Recent trends in the housing sector also pose a risk. Given the low levels of supply of residential properties in recent years, there is a possibility that significant pent-up demand could emerge. If supply were to rapidly increase to meet any unmet demand, there could be a substantial upswing in revenues from this source, considering the tax-rich nature of housing output.

As shown in Figures 3.19 and 3.20, a shock to GDP growth of 1.5 percentage points relative to *SPU 2017* forecasts each year during 2018 to 2021 would result in the general government balance being over 4 percentage points of GDP lower by 2021. All else being equal, this means that the public finances would remain in deficit out to 2021 as compared to a central scenario where it rises to a surplus of 1 per cent of GDP. In the same scenario, the currently high gross government debt-to-revenue ratio would rise above current levels, in the absence of corrective policy action. A shock of this magnitude would not be exceptional given the historic volatility of Irish nominal GDP growth, for which a typical current year forecast error is close to 2 percentage points.

**Figure 3.19: General Government Balance Paths**

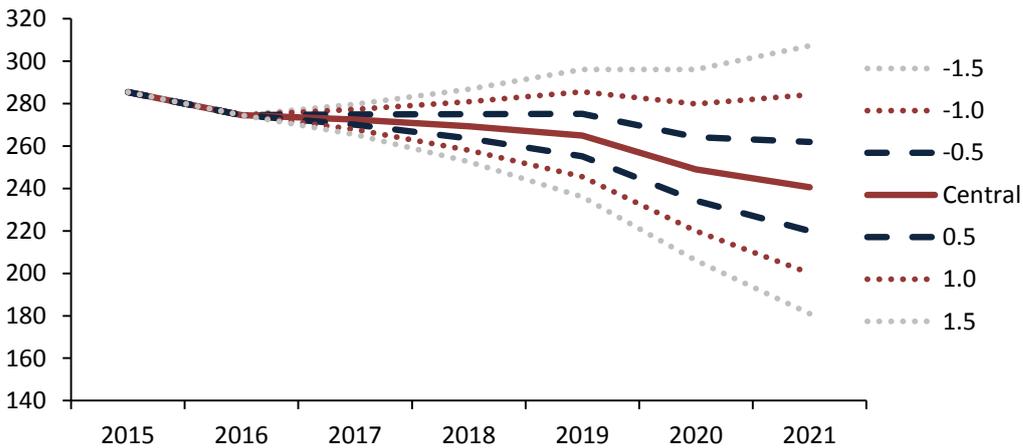


Sources: CSO; Department of Finance; and internal IFAC calculations.

Note: Using the Fiscal Feedbacks Model, the lines depict how far the budget balance would be pushed away from the SPU 2017 forecast under different shocks to growth in each year. The solid red line ("Central") corresponds to the latest official forecast.

**Figure 3.20: Gross Debt Paths**

% Total Revenue, General Government Basis



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

Note: Using the Fiscal Feedbacks Model, the lines depict how far the debt-to-revenue ratio would be pushed away from the baseline scenario under different shocks to growth in each year. Changes in EDP debt instrument assets for forecast years are assumed to be in line with projected changes in cash balances.

The Environmental Protection Agency (EPA) estimated that Ireland will exceed its obligations for Greenhouse Gas emissions in 2019 and will miss European targets set for 2020.<sup>77</sup> Costs in relation to this are not expected to arise until 2020/2021. Ireland's target for non-Emissions Trading Scheme (ETS) sector emissions is a reduction of 20 per cent from the 2005 levels. The EPA has estimated non-ETS emissions to be in the range of 4 to 6 per cent below 2005 levels by 2020. Though no official government costings are currently available, Curtin (2016) estimates a cost of

<sup>77</sup> See EPA report available at: [http://www.epa.ie/pubs/reports/air/airemissions/ghgprojections/EPA\\_2017\\_GHG\\_Emission\\_Projections\\_Summary\\_Report.pdf](http://www.epa.ie/pubs/reports/air/airemissions/ghgprojections/EPA_2017_GHG_Emission_Projections_Summary_Report.pdf)

between €60 to €120 million for purchasing compliance with Ireland’s non-ETS targets, using “low” carbon costs of between €5 and €10. Similarly, Ireland will face costs, for failing to attain the Renewable Energy Sources targets for 2020, estimated at between €168 and €490 million. Longer term costs are expected as a result of emissions targets set by the European Commission in July 2016. It is estimated that these costs will be in the region of €2.7 to €5.5 billion, based on a cost of €50-€100 per tonne of CO<sub>2</sub>. Therefore, in the medium-term horizon of *SPU 2017*, these costs appear to be a risk with a relatively lower impact, albeit with a higher impact arising over the longer term.

Table 3.3 shows the fiscal risks identified in *SPU 2017* along with the Department of Finance’s assessments of relative likelihoods and impacts. The Council then provides an assessment of each of the risks.

**Table 3.3: Assessing *SPU 2017* Fiscal Risk Matrix**

	Likelihood	Impact	IFAC Assessment
<b>EU-level Climate Change and Energy Developments</b>	H	H	Ireland is unlikely to meet its 2020 emissions targets without purchasing additional allowances, which could mean a cost of between €228 million to €600 million to the State. In the longer term (based on estimates to 2030 from Curtin, 2016), a failure to meet later targets could lead to additional costs in the region of €2.7 to €5.5 billion. This would suggest that for the forecast horizon, an assessment of high probability and relatively lower impact is appropriate.
<b>Budgetary Pressures</b>	M	H	This pressure refers to the risk of public expectations exceeding budgetary policy. Budgetary pressures may also arise due to demographics, eligibility factors and other demand side pressures. The negotiations in relation an extension of the Lansdowne Road agreement may add to these pressures. Any resulting increase in pay could increase existing expenditure pressures and should be considered in terms of impact on overall public finances.
<b>Concentration of Corporate Tax Receipts</b>	H	M	The increased proportion of tax revenue accounted for by Corporation Tax and the high concentration of revenue among the Top Ten payers makes this source of revenue particularly exposed to ‘idiosyncratic shocks’. Net receipts in 2016 amounted to €7.4 billion, with 37 per cent of this related to the Top Ten payers (€2.8 billion). The uncertainty about future US economic and fiscal policy further adds to this risk.
<b>EU Budget Contribution</b>	M	M	Should national income grow more than expected the EU budget contribution will increase. Additionally, there is uncertainty about budget contributions following the exit of Britain from the EU. However, given the relatively marginal effect that national income growth rates might have on this, the Council do not consider this as likely to have a substantial impact on the public finances.
<b>Changes to Tax ‘Drivers’</b>	M	M	Changes to the macroeconomic tax drivers, which are used for tax forecasting, may have a substantial impact on estimates and receipts. Changes to the elasticity of tax drivers which determine the response of revenues may also pose a risk to estimates and receipts.

	Likelihood	Impact	IFAC Assessment
<b>Financial Sector Developments</b>	L	M	The SPU identifies risks exist in relation to the non-, or lower-than-expected payment of bank dividends to the State. These are a function of ongoing business performance & outlook, regulatory requirements and are subject to bank board and supervisory control over which the State has no control. If some of these assets are sold, then associated revenue streams could fall.
<b>Receipts from Resolution of Financial Sector</b>	L	M	The SPU doesn't incorporate any assumed proceeds in relation to the State's disposal of shareholdings in a number of financial institutions, nor from the termination of NAMA or windup of the Credit Union Restructuring Board. This is due to the difficulty in projecting market conditions, the timing of disposals and any realised surplus funds. These represent an upside risk to the baseline scenario, which will depend on prevailing market conditions at the time of sale.
<b>Contingent Liabilities</b>	L	M	While declining, contingent liabilities remain a risk to public finances should any associated amounts suddenly have to be met with increased expenditure.
<b>Bond Market Conditions</b>	L	M	The long maturities and relatively fixed nature of debt should insulate the public finances from a typical shock to interest rates on sovereign borrowings. However, at high debt levels, there remain risks that external shocks such as a harder-than-expected Brexit could lead to self-reinforcing fears in bond markets.

Sources: Department of Finance; and internal IFAC assessment

Note: Likelihood and impacts from *SPU 2017*: H= High; M = Medium; L = Low.

## 4. Assessment of Compliance with Fiscal Rules

### Key Messages

- Having successfully exited the Corrective Arm of the *Stability and Growth Pact (SGP)* in 2015, with a budget balance higher than -3 per cent of GDP and a falling debt ratio, Ireland is now assessed under the Budgetary Rule requirements of the domestic *Fiscal Responsibility Act* as well as under the requirements of the Preventive Arm of the *SGP*. The first pillar of the rules relates to the structural balance; the second pillar relates to the Expenditure Benchmark.
- Ireland's structural balance for 2016 was -1.4 per cent, an increase of 0.3 percentage points, compared to 2015. This falls short of the minimum required increase of 0.6 percentage points of GDP – a breach of €0.7 to 0.8 billion. In 2016, the growth in expenditure net of discretionary revenue measures was below the maximum allowable rate, but this was only due to a temporary, one-off conversion of State-owned AIB preference shares. Had this transaction not been included as expenditure for 2015, the Expenditure Benchmark rule would also have been breached for 2016. This breach would have been €1 billion (0.4 per cent of GDP).
- The information published in *SPU 2017* was not sufficient to allow full assessment of compliance with the fiscal rules for 2016. Estimates for changes in the structural balance and expenditure growth for 2016 are missing, as are details on individual one-off expenditure and revenue measures. Transparency would be improved if such data were routinely reported in the *SPU*.
- *SPU 2017* plans show non-compliance with both pillars of the fiscal rules for 2017. The structural deficit is estimated to fall by 0.2 percentage points of GDP, less than a required 0.6 percentage points, with real expenditure growth exceeding the Expenditure Benchmark limit by €0.6 billion (0.2 per cent of GDP). For a two-year assessment, *SPU 2017* plans risk a significant deviation for both pillars. A preliminary estimate for the structural balance is €0.9 billion (0.35 per cent of GDP) above the limit. Based on an updated application of the Expenditure Benchmark, a deviation of €0.8 billion (0.3 per cent of GDP) is expected. A significant deviation could potentially lead to sanctions. The 2017 estimates are preliminary, but suggest that the public finances will have to be managed carefully, as there is little scope for any expenditure overruns or additional discretionary revenue measures during 2017.
- For 2018 onwards, compliance hinges on expenditure plans being consistent with ceilings set for future years. However, continuation of a well-documented pattern of upward revisions to spending in 2016 and previous years could undermine compliance. Effective implementation of the domestic budgetary framework would help support medium-term expenditure plans.

## 4.1 Introduction

The Council's mandate includes reporting on compliance with Ireland's domestic Budgetary Rule and monitoring compliance with the full range of EU fiscal rules as part of the broader assessment of the fiscal stance.<sup>78</sup> This Chapter examines recent compliance with these fiscal rules and the consistency of the projections contained in *SPU 2017* with the rules.

The primary target of fiscal policy from 2009 to 2015 was the correction of the excessive deficit as part of the Corrective Arm of the *SGP*. This correction was completed in 2015, ensuring that the requirements of both the domestic and European rules frameworks were met. The focus for Ireland has shifted to measures that seek to prevent fiscal policy from entering unsustainable territory, including requirements set under the domestic Budgetary Rule and the Preventive Arm of the *SGP*.

Section 4.2 follows this introduction and includes an *ex-post* assessment for 2016. Box H then assesses the nature of one-off/temporary measures relevant to the 2016 assessment. Section 4.3 provides a within-year assessment of compliance with the fiscal rules for 2017, while Section 4.4 covers the period 2018-2021. These assessments examine the budgetary plans and economic forecasts included in *SPU 2017*, considering the Council's views on one-off/temporary measures.<sup>79</sup> The Medium-Term Expenditure Framework (MTEF) is a mechanism that should support the achievement of Ireland's requirements under the Preventive Arm of the *SGP* (Section 4.5). It includes aggregate ceilings for departmental expenditure. Box I examines alternative implementations of the domestic ministerial expenditure ceilings.

## 4.2 Ex-Post Assessment for 2016

The 2016 assessment of the fiscal rules covers Ireland's requirements under the domestic *Fiscal Responsibility Act (FRA)* as well as the EU Preventive Arm. Last year (2016) was the first year for which both the domestic Budgetary Rule and the Preventive Arm rules applied, following the closing of the excessive deficit in 2015. Final (*ex-post*) assessments of compliance with the fiscal rules are only determined in each subsequent spring when outturn data for the preceding year

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<sup>78</sup> The Budgetary Rule is a key pillar of the domestic fiscal framework, mirroring *SGP* Preventive Arm requirements for the Medium-Term Budgetary Objective (MTO) that sets a target for the structural balance (set at -0.5 per cent of GDP for 2017-2019). The *FRA 2012* defines two ways of meeting Budgetary Rule requirements: (i) when the structural balance is at or exceeding the MTO (the "budget condition"); (ii) when the structural balance is on an appropriate path towards the MTO (the "adjustment path condition"). The assessment of the Budgetary Rule focuses on the change in the structural balance, but also considers expenditure growth by reference to the Expenditure Benchmark.

<sup>79</sup> While the Council's formal requirement to assess (*ex-post*) compliance with the Budgetary Rule is backward-looking in nature, the Council's mandate to assess the fiscal stance suggests considering compliance on a forward-looking basis. The Council has re-assessed its treatment of one-off/temporary measures for the purposes of assessing compliance with the fiscal rules. It now assesses individual one-off items for their applicability. Box H outlines the approach used by the Council.

become available. The Council's *ex-post* assessment for the domestic Budgetary Rule for 2016 is also set out in a separate Council publication from 23 May 2017.<sup>80</sup>

Table 4.1 summarises the requirements and estimated compliance for all years out to 2021 based on recent outturns and the latest official projections as in *SPU 2017*. Though applicable, the Debt Rule is not likely to present a binding constraint. Box H describes the impact of one-off/temporary measures on compliance with the fiscal rules in 2016. Note that Appendix G presents the same information as in Table 4.1, but with one-off/temporary expenditure measures not excluded from the analysis relating to the Expenditure Benchmark (pillar II). This is necessary to reflect applicable figures for the 2016 and 2017 assessments, where budgetary policies were framed before a change in methodology by the European Commission determined that one-off/temporary measures would be systematically excluded.<sup>81</sup>

Before detailing the *ex-post* assessments, the Council notes that the tables provided in *SPU 2017* are insufficient in two key respects for assessing compliance with the fiscal rules. First, information that would allow an assessment of changes in the structural balance and/or expenditure growth is not provided in the publication.<sup>82</sup> Second, information on individual one-off expenditure and revenue amounts (item-by-item) is central to the assessment of compliance, but is not provided in the *SPU*. Additional information has been provided by the Department to the Council, but in the interests of transparency, such information should be routinely reported in future budget and *SPU* publications.

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<sup>80</sup> See IFAC (2017), "*Ex-Post Assessment of Compliance with the Domestic Budgetary Rule in 2016*".

<sup>81</sup> Section 1.1.2 of the *Vade Mecum Update* (European Commission, 2017)

<sup>82</sup> The *SPU 2017* tables omit 2015 figures from the presentation. The Department are not required to present figures for year t-2 (i.e., 2015 in this case) when producing Stability Programme Updates, but could choose to do so. Another option would be to show the relevant expenditure growth rates and changes in the structural balance alongside requirements. Previous reports such as *Budget 2017* had included the change in the structural balance for example as "structural effort" in percentage points (Table 12, *Budget 2017*), but *SPU 2017* neglects to include this.

**Table 4.1: Summary Assessment of Compliance with Rules (% GDP unless stated)**

	Code	2015	2016	2017	2018	2019	2020	2021
<b>Corrective Arm:</b>								
General Government Balance	GGB	-2.0	-0.6	-0.4	-0.1	0.1	0.6	1.0
General Government Debt	GGD	78.7	75.4	72.9	71.2	69.5	65.2	62.9
1/20th Debt Rule (Backward/Forward-looking Benchmark)		109.2	96.5	83.5	74.1	71.8	70.1	67.7
<b>Preventive Arm &amp; Domestic Budgetary Rule:</b>								
<b>Pillar I. Structural Balance Adjustment Requirement</b>								
CAM Structural Balance	SB	-1.7	-1.4	-1.1	-0.5	-0.1	0.4	1.0
Actual Change in CAM Structural Balance	$\Delta$ SB	<b>1.9</b>	<b>0.3</b>	<b>0.2</b>	<b>0.6</b>	<b>0.4</b>	<b>0.6</b>	<b>0.6</b>
Minimum Change in Structural Balance Required	REQ	n.a.	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.0</b>	n.a.	n.a.
1yr Deviation (p.p.) ...negative = non-compliance		n.a.	-0.3	-0.4	0.0	n.a.	n.a.	n.a.
2yr Deviation (p.p.) ...negative = non-compliance		n.a.	n.a.	-0.35	-0.19	n.a.	n.a.	n.a.
<b>Pillar II. Expenditure Benchmark</b>								
Reference Rate of Potential Growth (% y/y)	R	n.a.	1.9	3.3	3.5	3.5	3.6	3.5
Convergence Margin (p.p.)	C	n.a.	1.8	2.0	2.4	0.0	0.0	0.0
Limit on Real Expenditure Growth (% y/y) = $R_t - C_t$	EB	n.a.	<b>0.1</b>	<b>1.3</b>	<b>1.1</b>	<b>3.5</b>	<b>3.6</b>	<b>3.5</b>
Actual Real Expenditure Growth (% y/y)	er	<b>2.5</b>	<b>1.6</b>	<b>2.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.5</b>	<b>1.1</b>
1yr Deviation (€bn) ...positive = non-compliance		n.a.	1.0	0.6	0.0	-1.6	-1.5	-1.8
1yr Deviation (% GDP) ...positive = non-compliance		n.a.	0.4	0.2	0.0	-0.5	-0.5	-0.5
2yr Deviation (€bn) ...positive = non-compliance		n.a.	n.a.	0.8	0.3	-0.8	-1.6	-1.7
2yr Deviation (% GDP) ...positive = non-compliance		n.a.	n.a.	0.30	0.11	-0.26	-0.50	-0.51
Nominal spending increase permitted before DRMs (€bn)		n.a.	1.2	1.7	1.6	3.6	3.9	4.0
<b>Relevant Macroeconomic Aggregates</b>								
Real GDP Growth (% y/y)	y	26.3	5.2	4.3	3.7	3.1	2.7	2.5
CAM Potential GDP Growth (% y/y)	y*	24.8	5.1	4.2	4.3	3.4	2.9	2.8
CAM Output Gap	OG	1.1	1.2	1.4	0.8	0.5	0.3	0.0
GDP deflator applicable (% y/y)	p	0.9	1.7	1.2	1.3	1.5	1.7	1.7

Sources: SPU 2017, EC Spring 2017 forecasts and internal IFAC calculations.

Note: The Preventive Arm and domestic Budgetary Rule assessments above examine the revenue and expenditure plans included in SPU 2017, using the Department of Finance's estimates of potential output and considering the Council's views on one-off/temporary measures. One-off items assessed to be applicable by the Council have been excluded from total expenditure for the purposes of assessing compliance in accordance with Section 1.1.2 of the *Vade Mecum Update* (European Commission, 2017). It should be noted that this treatment differs from what was applied in the Council's May 2017 publication, the "*Ex-Post Assessment of Compliance with the Domestic Budgetary Rule in 2016*" (IFAC 2017), in which the European Commission's Spring 2017 output gap estimates were used for the structural balance as these form the basis for any *ex-post* assessments of compliance.

Table AG.1 in Appendix G shows the table above where one-offs are not stripped out of the Expenditure Benchmark. If the one-off €2.1 billion AIB transaction in 2015 was included as additional expenditure, this would result in an over-compliance relative to the Expenditure Benchmark limit for the 2016 one-year assessment and the 2017 two-year assessment. Potential output is based on CAM-based estimates. EC Reference Rate and Convergence Margin estimates apply for Preventive Arm requirements and are frozen for years up to 2018.

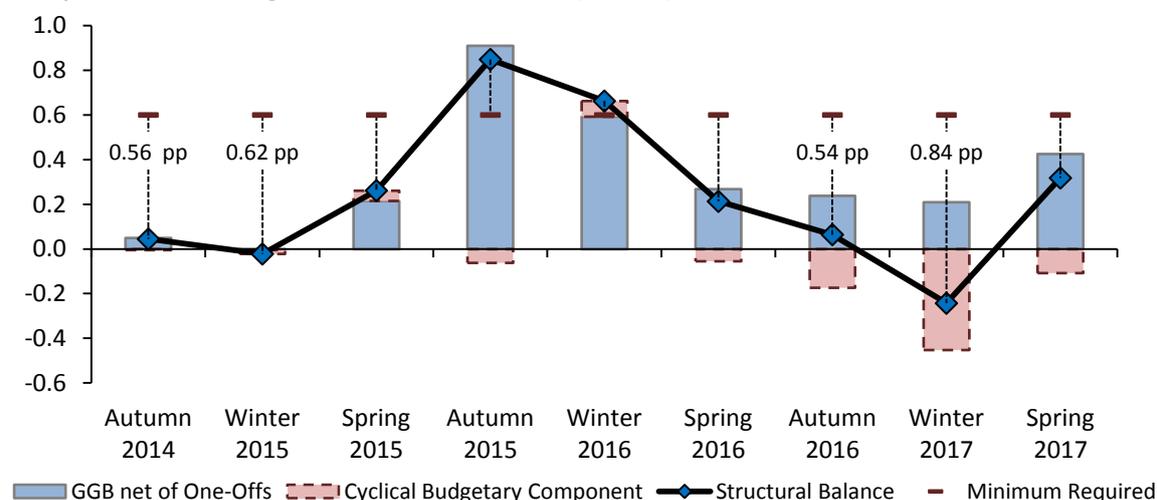
#### 4.2.1 MTO and Structural Balance Adjustment Requirements

The first pillar of the fiscal rules relates to the structural balance. For 2016, the requirement was to reduce the structural deficit by a minimum of 0.6 percentage points of GDP. The actual reduction achieved was 0.3 per cent of GDP, implying a breach under the rules equivalent to €0.7 to 0.8 billion.<sup>83</sup> When all the one-off/temporary measures for 2015 and 2016 included by the Department are applied, this results in a more favourable outturn in relation to the requirements, implying a reduction in structural deficit of 0.5 per cent of GDP (albeit, still short of requirements). Box H discusses which of the one-off/temporary measures the Council views as applicable for 2015 and 2016.

Figure 4.1 shows the evolution of the Commission’s estimated annual change in Ireland’s structural balance for 2016 across different forecast vintages. The change is decomposed into changes in the General Government Balance (excluding one-offs) and changes in the cyclical component of the deficit. The deviation relative to the minimum required change in the structural balance of +0.6 per cent of GDP is shown where it constitutes a “significant deviation”. Note that from spring 2016 onwards, the forecasts suggest a change in the general government balance (excluding one-offs) of less than the 0.6 percentage points required.

**Figure 4.1: Evolution of Estimated Change in Structural Balance for 2016**

Components of Change in Structural Balance (% GDP)



Sources: European Commission (various forecast vintages).

Note: The Cyclical Budgetary Component is estimated as:  $0.5275(\text{Output Gap})$ , where the output gap is based on the Commonly Agreed Methodology. Significant Deviations are shown above in percentage points.

Notably, the estimates in *Autumn 2016* and *Winter 2017* relative to *Spring 2016* show a cyclical upswing (resulting in a negative cyclical budgetary component change), which implies a breach of

<sup>83</sup> Note that this estimate of the breach in nominal terms is derived from the Department’s own estimates of potential output. As Ireland exited the Corrective Arm of the *SGP* in 2015, the two-year requirement does not apply until 2017.

the first-pillar requirement. In the most recent estimate from the Commission's *Spring 2017* publication, there is a smaller change in the cyclical component. This reflects a faster potential output growth rate in 2016 which is driven in part by large capital contributions resulting from substantial imports of intangible assets in the fourth quarter of 2016. A "minimalist" approach to compliance with the fiscal rules can increase the likelihood of breaches occurring given the variability of estimates of the deficit, nominal GDP and the output gap.

#### **4.2.2 Expenditure Benchmark**

The second pillar of the Domestic Budgetary Rule and the Preventive Arm is the Expenditure Benchmark. Compliance with this pillar of the rules was only secured in 2016 due to a temporary, one-off boost to the spending base in 2015. This was the result of a conversion of AIB preference shares held by the State. Had this transaction not been treated as expenditure in 2015, the Expenditure Benchmark limit for expenditure growth in 2016 would have been breached by over €1 billion (0.4 per cent of GDP). The Council's May 2017 publication, *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule* (IFAC 2017), reflects the technically compliant outcome described above (also shown in Table AG.1 in Appendix G). However, Table 4.1 in this *FAR* instead reflects the underlying expenditure position, of particular relevance to the *ex-ante* assessment of the two-year performance for 2016 to 2017 (detailed in Section 4.3).<sup>84</sup>

Clearly, the treatment of one-off items is central to assessments of underlying developments in the budgetary aggregates as well as to monitoring compliance with the fiscal rules. In the interests of transparency, the Council has decided to publish information on one-off items. Box H looks at data for 2015 and 2016, which are relevant to the latter year's *ex-post* assessment.

#### **Box H: One-Off/Temporary Measures Relevant to 2016 Assessment**

This Box sets out the Council's approach to identifying one-off measures and assesses those that were relevant to the fiscal rules in 2016. A key part of the assessment of compliance with the fiscal rules involves stripping out any one-off or temporary measures (collectively referred to as "one-off measures") that might impact the deficit in a given year. One-off measures are intended to capture items with a transitory impact that do not lead to a sustained change in the budgetary position.

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<sup>84</sup> Note that the European Commission now intends to assess the Expenditure Benchmark by systematically stripping out one-off/temporary measures, described in Section 1.1.2 of the *Vade Mecum Update* (European Commission, 2017).

The identification and measurement of one-offs is an important part of assessing compliance with the fiscal rules. It is subject to a large degree of discretion and there is evidence internationally of strategic use of one-offs to achieve fiscal outcomes that appear more favourable.<sup>85</sup> To facilitate a clear understanding of what can be classified as one-offs, and to counteract potential “fiscal gimmickry”, the European Commission has developed a set of guiding principles for identifying one-offs:<sup>86</sup>

- **Principle I:** One-off measures are intrinsically non-recurrent.
- **Principle II:** The one-off nature of a measure cannot be decreed by law or by an autonomous government decision. It should be possible to evaluate the one-off nature of a measure unambiguously upon announcement and this should not depend on the way in which it has been announced by the policymaker (e.g. if the measure is announced as temporary or permanent).
- **Principle III:** Volatile components of revenue or expenditure should not be considered one-off. Cyclical parts of revenue or expenditure should not be considered as one-off, as this impact is already corrected for via the cyclical adjustment of the general government balance. While revenue or expenditure components may still exhibit a significant degree of volatility, one-offs are not primarily intended to smooth time series and should therefore not be used to correct for this kind of volatility.
- **Principle IV:** Deliberate policy actions that increase the deficit do not, as a rule, qualify as one-offs. In order to give policymakers the right incentive to fully recognise permanent budgetary impacts, there is a strong presumption that deliberate policy actions that increase the deficit are of a structural nature. These measures should only exceptionally be classified as one-offs, in cases where it can be unambiguously demonstrated that they have an intrinsic temporary nature.
- **Principle V:** Only measures having a significant impact on the General Government balance should be considered one-offs. As a rule, measures worth less than 0.1 per cent (rounded) of GDP should not be considered one-offs. Such measures are more likely to constitute normal volatility of public finances and their non-classification as one-offs avoids excessive complexity in monitoring government revenue and expenditure.

The Council’s assessment of one-off classifications applied for 2015 and 2016 by the Department of Finance and the European Commission is informed, in part, by these guiding principles. However, neither the Department nor the Commission has provided a detailed taxonomy of the one-off items included for the year. Instead, one-off items are typically shown in net and/or aggregate terms with little or no information on their nature or justifications for their recognition as such.

Discerning how appropriate the “one-off” classifications are requires careful consideration of the merits of each one-off proposed. As a general rule, the Council views the one-off label as (i) something only applicable in cases where the one-off nature of the item is unambiguous (i.e., not for conventionally volatile items) and (ii) something that should apply only for reasonably large items or related items (i.e., amounting to more than 0.1 per cent of GDP). This should limit the risk of promoting poor incentives with respect to transparency and the sustainable management of the budgetary position. A further useful benchmark against which to assess tax

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<sup>85</sup> A fiscal rules framework that is based on numerical maximum-allowable levels can create incentives for governments to use one-off measures strategically. Box D (IFAC, 2014b) explores the treatment of one-offs in detail, while Koen and Van den Noord (2005) demonstrate that as deficit rules become more binding, recourse to one-offs and other stratagems is more likely. Alt *et al.* (2014) offer a useful and more recent survey of the literature in this area.

<sup>86</sup> These guiding principles are extensively explained in Chapter II.3 of the 2015 Report on Public Finances in EMU (European Commission, 2016). The Section provides examples of frequently occurring one-offs and discusses a number of measures that have ‘borderline’ characteristics, but which ultimately have not been considered one-off measures.

one-offs is the historical volatility of the tax head itself.

It is important that a high degree of transparency is evident for the identification of one-offs given the scope for discretion involved. Estimates in *Budget 2017* and *SPU 2017*, however, give no detail as to the nature or justification for the four separate one-offs items forming the basis for the Department's assessment of the structural balance change between 2015 and 2016.<sup>87</sup>

The Department has shared with the Council additional information on one-offs identified.

**Table H.1: One-Off/Temporary Measures Relevant for 2016 Assessment**

€ millions

One-Off item	Rationale for Inclusion as One-Off	Department of Finance		European Commission		IFAC	
		2015	2016	2015	2016	2015	2016
<b>AIB Transaction*</b>	Treatment of conversion of state-owned AIB preference shares into ordinary shares as a capital transfer implies a temporary boost to expenditure. Expenditure treatment is due to increased risk linked to potential returns.	2,110		2,110		2,110	
<b>EFSF Pre-Paid Margin</b>	A prepaid margin on the borrowings from the European Financial Stability Facility was repaid to the Exchequer.		-550		-550		-550
<b>Other</b>		-610	-230				
<b>EU Budget Contribution*</b>	Step-change in contribution to EU Budget prompted by GNI revisions		170*		170*		170*
<b>Total Impact of Exclusion of One-Offs on General Government Balance (GGB)</b>		1,500	-610	2,110	-380	2,110	-380
<b>...as a % GDP</b>		0.6	-0.2	0.8	-0.1	0.8	-0.1
<b>Implied Change in Underlying GGB (excluding one-offs/temp measures above)</b>			0.6		0.4		0.4
<b>Implied Change in Structural Balance</b>			<b>0.5</b>		<b>0.3</b>		<b>0.3</b>

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

Note: Figures are rounded to nearest €10 million. A positive figure means that the one-off item decreases the GGB in that year, so the GGB, excluding one-offs, is higher than the CSO's published GGB.

\* Amount is less than 0.1% GDP.

Table H.1 lists the items that were included as one-offs by the Department and the Commission for the purposes of assessing the required +0.6 percentage point change in the structural balance between 2015 and 2016. These also form part of the *ex-post* assessment of compliance with the domestic Budgetary Rule in 2016. There are significant differences between the Department's and Council's assessments of one-offs, which net over €0.6 billion in 2015 and €0.2 billion in 2016.

Assessing the one-offs proposed by the Department, the Council judges the AIB Transaction,

<sup>87</sup> Moreover, while data on the aggregate impact of one-offs are made available by the Commission, detailed information on the classification of one-off operations for Member States subject to the Stability and Growth Pact is not systematically provided. As such, it is not possible to evaluate whether or not inconsistencies in classification exist over time and across countries ([Marinho, 2015](#)).

EFSF pre-paid Margin and EU Budget Contribution to meet the necessary criteria as discussed in this Box. The AIB Transaction involved conversion of state-owned preference shares and is considered an artificial boost to expenditure in 2015. The EFSF pre-paid margin involved a one-off receipt as a result of an unusual funding structure pertaining to an EFSF loan drawn down in February 2011 and maturing in July 2016, therefore representing a non-recurring boost to 2016 revenue.<sup>88</sup> The EU Budget Contribution item refers to one-off expenditure in 2016 resulting from the CSO's *National Income and Expenditure 2015*. While the level shift in 2015 GNI is not necessarily temporary, the additional expenditure allocated to 2016 relating to the 2015 increase is one-off in nature due to effective double counting of this amount.

Overall, the Council's assessment is that a narrower list of one-offs than used by the Department is warranted. In particular, the items comprising the "other" aggregate are judged to correspond better with normal volatility of their respective General Government categories, and in any case the individual components do not exceed 0.1 per cent of GDP. Using the Council's one-offs, the change in the structural balance for 2016 is +0.3 percentage points of GDP, which falls short of the +0.6 percentage point adjustment requirement. As with the Department's estimated change in structural balance of +0.5 percentage points, the breaches are not large enough to trigger potential sanctions.

### 4.3 In-Year Assessment for 2017

For 2017, *SPU 2017* plans would breach both pillars of the Domestic and EU fiscal rules, based on the new application of the fiscal rules. The change in the structural balance is expected to be less than required and spending growth net of discretionary revenue measures is expected to exceed the limit set under the Expenditure Benchmark.

#### 4.3.1 MTO and Structural Balance Adjustment Requirements

The Government's structural budget balance is not projected to meet the Medium-Term Objective (MTO) in 2017, thus failing to fulfil the Domestic Budgetary Rule's "Budget Condition". Both the Domestic Budgetary Rule and the Preventive Arm of the *SGP* require that appropriate adjustments are made towards the MTO of a structural balance of -0.5 per cent of GDP. The current CAM-based estimate of the structural balance for 2017 is -1.1 per cent of GDP.<sup>89</sup>

The Department of Finance's official *SPU 2017* projections show that the adjustments toward the structural-balance target fall short of requirements under the domestic Budgetary Rule and the Preventive Arm of the *SGP* for 2017. Requirements for an adjustment in the structural balance of +0.6 percentage points of GDP were set in spring 2015, while the Department's forecasts currently

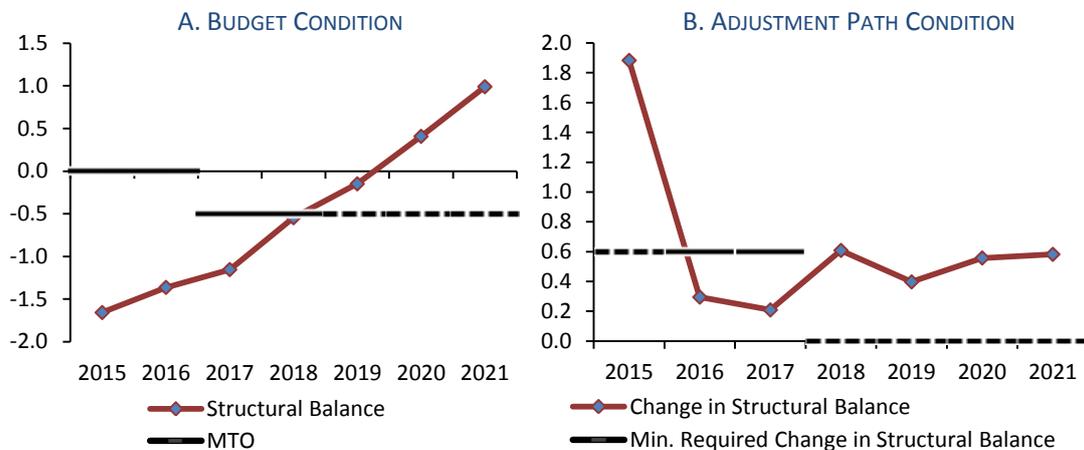
<sup>88</sup> The original EFSF loan amounted to €4.2 billion, of which a €3.6 billion drawdown was received and the balance retained by the issuers as a credit-enhancing provision, given Ireland's sub-Investment Grade sovereign credit rating at the beginning of the EU/IMF Programme of Assistance. Following the removal of European loan margins for Programme countries agreed during 2011, and later the extension of European-loan maturities agreed in 2013, the margin retained on the first EFSF loan was scheduled for return to Ireland in July 2016.

<sup>89</sup> As noted in previous *Fiscal Assessment Reports*, structural balance estimates derived from output gaps on the basis of the CAM may be inappropriate for Ireland (Chapter 2). The structural balance comprises the General Government Balance of -0.4 per cent of GDP in 2017, minus half the output gap level (based on a 0.5275 semi-elasticity), minus one-offs.

imply a change in the balance (adjusted for one-offs and cyclical developments) of +0.2 percentage points.<sup>90</sup> The Department's forecasts reflect different levels of one-off/temporary measures in *SPU 2017* from those considered applicable by the Council and the Commission, leading to a smaller preliminary structural-balance adjustment in 2017 under the Department's figures.

Over a two-year assessment, *SPU 2017* plans risk a significant deviation for the first pillar – that is, an average deviation over 2016 and 2017 above 0.25 per cent of GDP. A preliminary estimate for the structural balance change is €0.9 billion (0.35 per cent of GDP) above the limit. A significant deviation could potentially trigger sanctions following a Significant Deviation Procedure.

**Figure 4.2: Assessment of Compliance with the Budgetary Rule**  
(A) Structural Balance (% of GDP); (B) Change in Structural Balance (Percentage Points)



Sources: *SPU 2017*; and internal IFAC calculations.

Note: The minimum MTO for Ireland was revised to -0.5 per cent of GDP for 2017-2019 and is planned to be achieved in 2018 so that the adjustment path condition no longer applies thereafter. Required changes above are calculated based on the previous year's structural balance. Dashed black lines in the graphs above indicate conditions that either did not yet apply, or are not expected to apply once the MTO has been reached.

#### 4.3.2 Expenditure Benchmark

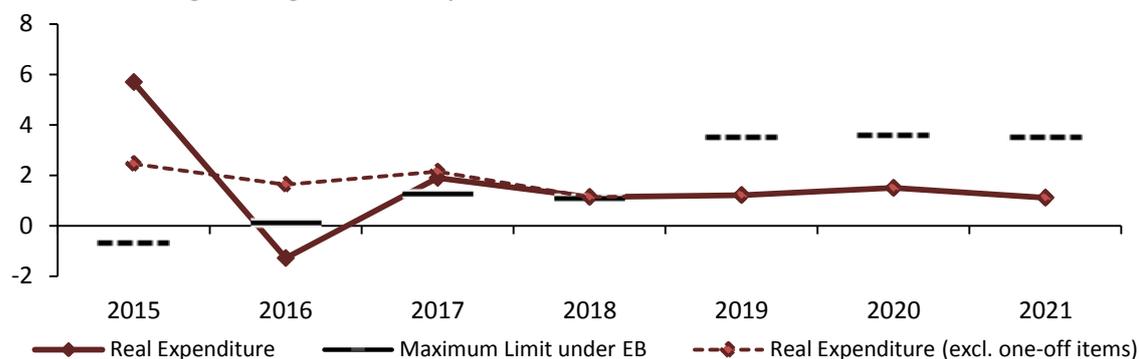
*SPU 2017* plans would breach the Expenditure Benchmark rule in 2017. This is the same as the indications at budget time using the Department's own estimates. Real expenditure growth is expected to be 2.0 per cent in 2017, above the limit of 1.3 per cent. As shown in table 4.1, these plans imply a one-year deviation of 0.2 per cent of GDP (equivalent to €0.6 billion), and a two-year deviation of 0.3 per cent (equivalent to €0.8 billion), above the 0.25 per cent threshold for a "significant deviation". The 2017 estimates are preliminary, but suggest that the public finances will have to be managed carefully, as there is little scope for any expenditure overruns or additional discretionary revenue measures during 2017.

<sup>90</sup> European Commission estimates suggest that the change in the structural balance in 2017 may just meet the minimum required change.

Appendix G presents an alternative version of Table 4.1 with one-off/temporary measures not excluded from the calculations for assessing compliance with the second pillar, the Expenditure Benchmark. The Appendix is included due to the change in assessment policy, described in Section 1.1.2 of the *Vade Mecum Update* (European Commission, 2017). The current approach indicates that one-offs will be systematically stripped out of total expenditure when assessing the Expenditure Benchmark. This change was introduced in December 2016, after Budget 2017 plans had been published. The alternative table without one-offs excluded shows no two-year breach for 2017, though the one-year breach relative to 2016 expenditure levels remains.

**Figure 4.3: Compliance with the Expenditure Benchmark**

Annual Percentage Change in Real Expenditure



Sources: SPU 2017 and EC Spring Economic Forecasts.

Note: Real expenditure is the adjusted aggregate relevant for the assessment of the Expenditure Benchmark (EB). It excludes interest spending, expenditure on EU programmes fully matched by EU funds revenue and cyclical elements of unemployment benefit expenditure. Investment spending is averaged over a four-year window to smooth the impact of large investment projects. The EB is complied with where the real expenditure aggregate grows slower than maximum limit permitted under the EB. This growth rate is adjusted to reflect discretionary revenue measures. Dashed black lines in this graph refer to the maximum limit for adjusted real expenditure growth under the EB, in years when either the rules were not applicable, or when the rules are not expected to be applicable following achievement of the MTO (Section 4.3.1).

Figure 4.3 reveals the performance of real expenditure (including and excluding one-off items) relative to the Expenditure Benchmark over the assessment horizon. In November, the Council noted that weaknesses in expenditure management in recent years, including a pattern of overspending in Health, could lead to a widening of this underlying breach of the Expenditure Benchmark for 2017 (IFAC, 2016a).

#### 4.4 Ex-Ante Assessment of 2018 to 2021

The *ex-ante* assessment of compliance with the fiscal rules for 2018 and later years focuses on the pace of structural adjustment towards meeting Ireland’s updated MTO. An analysis of spending growth using the Expenditure Benchmark is also included. The debt rule, though applicable, is likely to represent less of a binding constraint.

#### **4.4.1 MTO and Structural Balance Adjustment Requirements**

If the fiscal path envisaged in *SPU 2017* were to be followed, the 2018 adjustment would be sufficient to meet the MTO of -0.5 per cent of GDP. No further adjustments are required if the MTO (once achieved) is maintained.

Figure 4.2 in the previous Section compares the projected structural balance path in *SPU 2017* to the expected annual requirements out to 2021. While the fiscal requirements for 2018 have been set, some uncertainty remains for subsequent years. Requirements will depend on the degree of compliance for preceding years and on supply-side estimates underpinning the EC “matrix” (see Figure G.1).<sup>91</sup>

Further detail is expected from the Department with regard to the specification of the Rainy Day Fund, first indicated as a policy intention in the *Summer Economic Statement 2016*. As described in Chapter 3, amounts allocated to this fund would remain within an Exchequer contingency reserve, and as such would not be treated as General Government expenditure. Clarity on these and other features of such a counter-cyclical buffer will be welcome.

#### **4.4.2 Expenditure Benchmark**

The maximum growth rate in spending permitted under the Expenditure Benchmark for 2018 has been set at 1.2 per cent in real terms, rising to above 3 per cent for 2019 to 2021. While compliance is projected to be met for 2019 to 2021, *SPU 2017* plans would narrowly breach both pillars of the fiscal rules in terms of the two-year assessment for 2018. The pattern of persistent revisions to budgeted current expenditure ceilings has been discussed in previous Council publications (see, for example, Figure 3.9 in the June 2016 *FAR* (IFAC, 2016a)) and if repeated could risk sanctions due to a significant deviation.

#### **4.4.3 Debt Rule**

Transitional arrangements under the Debt Rule apply until end-2018 before normal Debt Rule requirements take effect from 2019. The debt rule broadly requires debt in excess of 60 per cent GDP to be reduced by at least 1/20<sup>th</sup> per year on average.<sup>92</sup> Relative to the other fiscal rules, the Debt Rule is expected to present less of a binding constraint on medium-term fiscal policy. The Department’s debt-ratio projections are shown in Table 4.1 and fall well below the two main criteria of the Debt Rule (the “backward-” and “forward-looking benchmarks”) in all forecast years.

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<sup>91</sup> For example, failure to meet the MTO in 2018 as planned could mean further conditions are required, with these being set with reference to the EC “matrix”.

<sup>92</sup> For a more detailed discussion, see IFAC *Analytical Note 5: Future Implications of the Debt Rule* (Howlin, 2014).

## 4.5 The Medium-Term Expenditure Framework (MTEF)

The MTEF requires the Government to provide expenditure ceilings for each department covering the three years ahead from each budget year.<sup>93</sup> The intention is to assist the planning and delivery of service reforms, while avoiding the expenditure management problems observed prior to the crisis.

As described in previous Council publications, there has been a pattern of upward revisions to expenditure ceilings, in particular since 2011. For example, expenditure overruns have been a significant feature of the Health area, a subject of previous research by the Council.<sup>94</sup> In 2016, a total of €0.4 billion was spent on the Health area budget over and above what was allocated in the *Comprehensive Expenditure Review 2015-2017*.

The preparation of medium-term budgetary projections has improved in recent years, with a more realistic scenario that includes the use of estimated net fiscal space available in future years. However, these projections are not used to set the Ministerial Expenditure Ceilings, which remain lower. This practice seems to signal that ceilings are expected to be revised up in the central case. The Council continues to advocate the construction of realistic and credible ceilings at Ministerial level that fully incorporate expected spending plans. It is important to note that the Council is not suggesting that automatic or semi-automatic indexation should be adopted as a policy. However, as argued in previous Fiscal Assessment Reports, realistic expenditure forecasts that take both volume and price effects into account are important to underpin effective expenditure planning and control. The Council has outlined an alternative broad approach to setting medium-term Ministerial expenditure ceilings that builds on the recent reforms to the budgetary process (Box I).

Spending limits that are founded on CAM-based potential output growth rates – as is the case with the Expenditure Benchmark – may exhibit pro-cyclical tendencies. In particular, the CAM has a known tendency toward producing measures of potential output growth rates that follow actual GDP growth rates quite closely (as discussed in previous *FAR* and other Council publications). Furthermore, the possibility for mismatches between permitted expenditure growth rates and real GDP growth forecasts warrants caution in terms of setting an appropriate path for future expenditure.

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<sup>93</sup> The MTEF is set out in the *Ministers and Secretaries (Amendment) Act 2013* and Departmental Circular 15/13.

<sup>94</sup> Howlin (2015), 'Controlling the Health Budget: Annual Budget Implementation in the Public Health Area'

## Box I: Medium Term Expenditure Ceilings

This Box discusses the concept of medium term expenditure ceilings, which are an important tool for expenditure management. They are intended as upper limits on departmental expenditure that are set a number of years in advance (typically three years). This Box compares the current approach to setting ceilings as favoured by the DPER with an alternative approach as proposed by the Council.

### Medium Term Expenditure Framework

The Medium Term Budgetary Framework (Department of Finance, 2014) is a procedural manual that sets out the operation of medium term expenditure ceilings in accordance with the EU directive on Medium-Term Budgetary Frameworks.<sup>95</sup> It notes that each year an Expenditure Report will set out Ministerial Expenditure Ceilings for the next three years, calculated to ensure compliance with the Expenditure Benchmark (one of the pillars of the fiscal rules).

The Medium Term Expenditure Framework further clarifies rules and procedures for how ceilings are to be set by DPER.<sup>96</sup> Specifically, it notes that the expenditure ceilings will act as an upper limit on expenditure for each year and sets out the limited circumstances under which revisions to the ceilings can be made.<sup>97</sup> It notes that it is the responsibility of the Minister and Heads of Departments to ensure that the ceilings are adhered to and to reprioritise as necessary within them. The EU directive on Medium-Term Budgetary Frameworks also requires future budgetary forecasts to incorporate major items of expenditure and revenue both on the basis of unchanged (real) policies and in line with the Government's stated policy objectives.

### Alternative Approaches

The current approach sees non-pay expenditure ceilings held flat in nominal terms, with the Department asserting that this is the best way to promote efficiency savings and reprioritisation within existing multi-annual ceilings. The Council, however, is of the view that if ceilings are seen as a soft-budget constraint, the incentive to reprioritise and achieve efficiency gains is undermined. The Council envisages an alternative approach in which incentives could be improved by setting more realistic expenditure projections underlying the ceilings, which take account of realistic pressures, including some price effects. It is important to note that the Council is not suggesting that automatic or semi-automatic indexation should be adopted as a policy. Table I.1 outlines similarities and differences of the two approaches.

As noted in previous publications (IFAC 2014a, 2014b, 2015a, 2016a), the Council views regular revisions to the Ministerial Expenditure Ceilings as inconsistent with the credibility of expenditure ceilings and the direct result of unrealistic expenditure forecasting (Figure I.1).

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<sup>95</sup> Council Directive 2011/85/EU

<sup>96</sup> Circular 13/15, Department of Expenditure (2013).

<sup>97</sup> For the aggregate Government Expenditure Ceiling: (i) If specified exceptional circumstances occur (e.g. severe macroeconomic shocks etc.); (ii) if compensatory discretionary measures are introduced, e.g. through changes to tax policy resulting in increased revenues in a year; and (iii) to reflect special arrangements for specified expenditure categories (e.g., cyclical expenditure).

For the individual Ministerial Exp. Ceilings: (i) following a Government decision to vary the aggregate Government Expenditure Ceiling; (ii) to reflect a Comprehensive Review of Expenditure by implementing proposals for new Ministerial Expenditure Ceilings; (iii) if the Government considers that there are good and pressing reasons of public policy for allowing reallocation of resources among Ministerial Expenditure Ceilings, (iv) If an adjustment of one or more individual Ministerial Expenditure Ceilings becomes necessary due to a failure of one or more Departments/Offices to comply with their Ceilings for the current year (a Supplementary Estimate would be required under existing provisions); (v) to reflect special arrangements for cyclical expenditure and certain other expenditure categories; and (vi) if a Department has carried over funds from one year to the next.

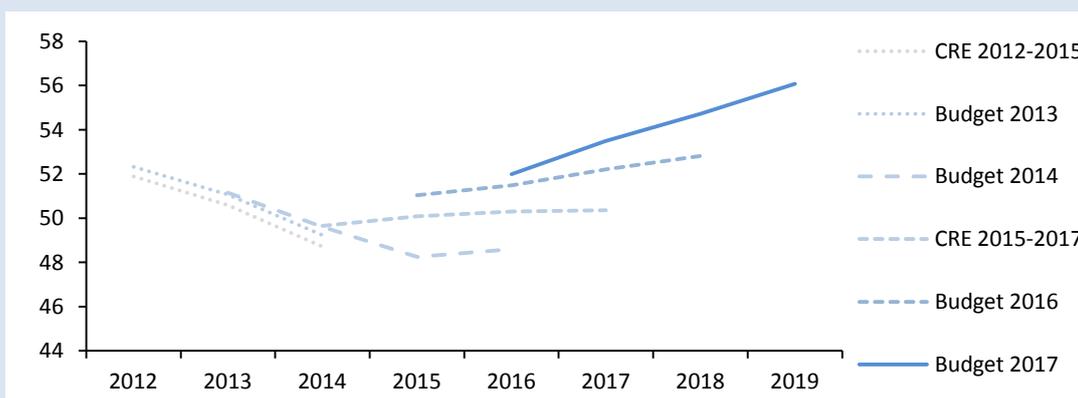
**Table I.1: Alternative Approaches to MECs**  
Current Approach to MECs vs. Alternative Approach

	Current Approach	Alternative Approach
Baseline Forecasts	<ul style="list-style-type: none"> <li>• Allow for demographic pressures</li> <li>• Allow for other non-price pressures</li> <li>• Hold non-pay spending broadly flat</li> <li>• Does not allow for price effects</li> </ul>	<ul style="list-style-type: none"> <li>• Allow for demographic pressures</li> <li>• Allow for other non-price pressures</li> <li>• Allow for price effects by considering deflators to indicate what would be needed to maintain real public pay and benefits.</li> </ul>
Rationale for Forecasting Approach	Non application of price increases is the best way to generate efficiency dividends and promote productivity	No use of deflators ⇒ unrealistic forecasts ⇒ reinforces likelihood of future upward expenditure revisions in future (soft budget constraint)
Allocation of Fiscal Space	Hold majority of fiscal space outside Departmental ceilings, so as to allow Government to address emerging, unforeseen, social/economic pressures	Leave limited amount of fiscal space unallocated for net primary expenditure to allow for changes in fiscal rules inputs/parameters and/or unforeseeable spending pressures
Carryover Impacts of New Measures	Incorporate in forecasts <sup>1</sup> (not incorporated for 2018-2019 in <i>Budget 2017</i> expenditure forecasts)	These should always be incorporated in forecasts

<sup>1</sup> Note that for expenditure forecasts in *Budget 2017*, the carryover impact of new measures was not incorporated, as was the Department’s supposed preferred approach (Mid-Year Expenditure Report 2016).

Regular upward revisions of ceilings can create a “soft budget constraint”. When new expenditure pressures are regularly accommodated by upward revisions to Ministerial ceilings, incentives for managing expenditure within budgets are weakened, thus increasing the likelihood that future expenditure overruns occur. This has been identified as a particular issue in the Health sector (Howlin, 2015).

**Figure I.1: Gross Current Expenditure Ceilings**  
€ Billions



Sources: Department of Public Expenditure & Reform; and internal IFAC calculations.

The current approach to medium term expenditure ceilings seeks to establish a commitment mechanism as opposed to forecast expenditure. However, the frequent upward revision of these ceilings impacts on the credibility of this commitment and the mechanism fails to function as an effective commitment tool.

## Appendix A: The Council's Benchmark Projections (as of 22 March)

**Table AA.1: Benchmark Projections for 2017-2019**

% change in volumes unless otherwise stated

	2017	2018	2019
<b>GDP</b>	5.7	3.6	3.3
<b>Consumption</b>	3.2	2.9	2.9
<b>Investment</b>	2.2	2.9	3.0
<b>Government</b>	2.6	2.1	2.0
<b>Stock changes</b>	0.0	0.0	0.0
<b>Exports</b>	6.0	3.9	3.5
<b>Imports</b>	3.6	3.3	3.2
<b>Net Exports (p.p. contribution)</b>	3.6	1.5	1.2
<b>Domestic Demand (p.p. contribution)</b>	2.1	2.1	2.1
<b>Stock Changes (p.p. contribution)</b>	0.0	0.0	0.0
<b>Current Account (% GDP)</b>	6.3	6.3	6.0
<b>Employment</b>	3.0	2.3	1.9
<b>Unemployment Rate (%)</b>	6.6	6.0	5.6
<b>HICP</b>	1.0	2.0	2.2
<b>GDP Deflator</b>	1.7	1.7	1.5
<b>Nominal GDP (€ billions)</b>	285.7	300.9	315.3
<b>Nominal GDP</b>	7.5	5.3	4.8

Source: Internal IFAC calculations.

## Appendix B: Timeline for Endorsement of SPU 2017 Projections

Date	
9 March	CSO release <i>Quarterly National Accounts</i> estimates for Q4 2016.
14 March	The Secretariat and Department of Finance met the CSO to clarify technical details of latest <i>Quarterly National Accounts</i> estimates.
16 March	The Secretariat received Department of Finance technical assumptions underpinning SPU 2017 forecasts. <sup>98</sup>
22 March	After consideration by the Council, Benchmark projections are finalised by the Secretariat prior to receiving preliminary forecasts from the Department of Finance.
22 March	The Council received preliminary forecasts from the Department in line with <i>Memorandum of Understanding</i> requirements.
27 March	The first endorsement meeting took place with the Department of Finance presenting their forecasts to the Secretariat. A number of clarifications of a factual nature were requested.
31 March	The Council met to discuss the Department of Finance forecasts. Following this, Department of Finance staff met with the full Council and Secretariat to present their latest forecasts and to answer questions. The Council sought information regarding a number of forecast components. The Council then finalised a decision on the endorsement.
4 April	The Chair of the Council wrote a letter to the Secretary General of the Department of Finance endorsing the set of macroeconomic forecasts underlying SPU 2017.
11 April	The Department's forecasts are published in SPU 2017.

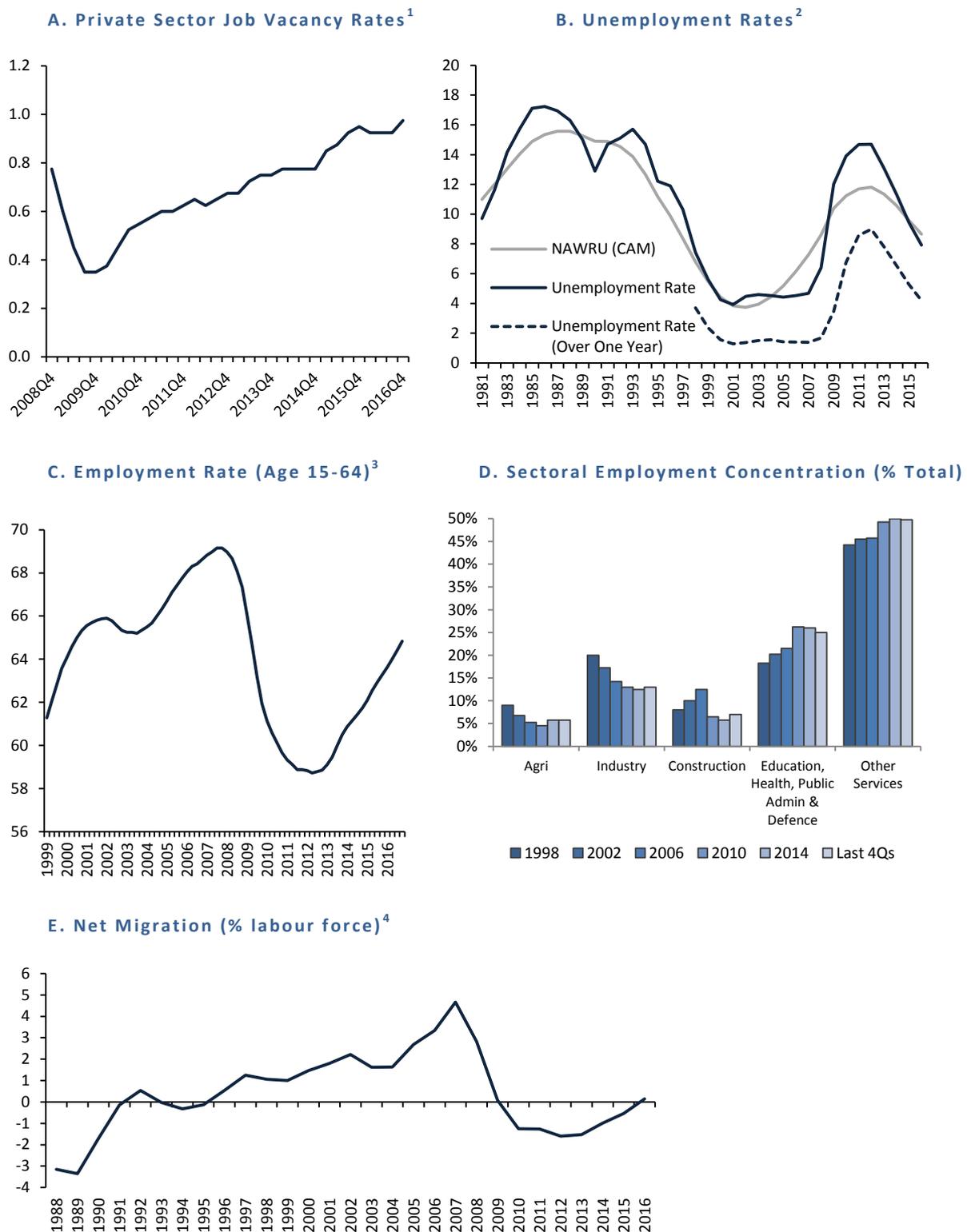
<sup>98</sup> These included assumptions related to oil prices, exchange rates, Net expenditure by central and local government on current goods and services and sources of forecasts for major trading partners.

## Appendix C: Imbalance Indicators

As previously highlighted IFAC (2015b), the Council, as part of its toolkit for examining the cyclical position of the economy use a “modular” approach. While univariate filters and other potential output measures are useful, there is a danger that they may not reflect all available economic information which may point to possible imbalances in the economy. Specifically in response to the financial crisis, Borio *et al.* (2014) developed methods of estimating potential output using financial indicators, which capture the effect of the financial sector on the business cycle. This approach can be applied to other variables which may provide useful information on the cyclical position of the economy. With this in mind, this appendix shows some potential sources of imbalances. Within each module, a number of indicators are examined.

While this modular approach ensures that many potential sources of imbalance are examined, there are difficulties in choosing/estimating weights for each of these imbalance indicators. Historical data may be a good guide to variables that explain previous business cycles, but not necessarily current or future ones. Five modules are shown here, namely the labour market, the external sector, investment indicators, credit ratios/gaps and housing indicators.

**Figure AC.1: Labour Market Indicators**  
Rates (%)



Source: CSO; European Commission; internal IFAC calculations.

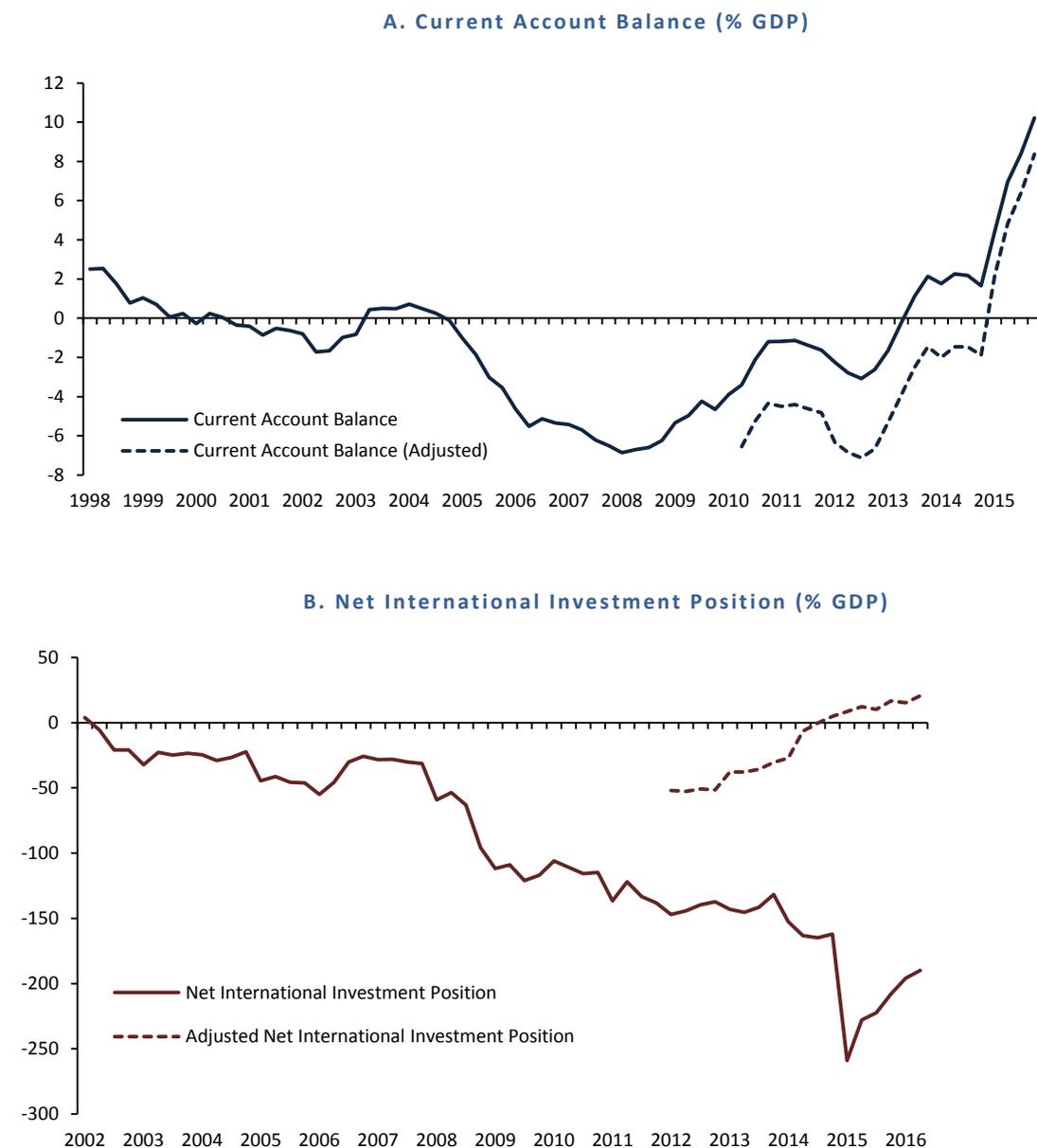
<sup>1</sup> Rates show % of vacancies + occupied jobs. Four quarter moving average of job vacancy rate shown.

<sup>2</sup> The NAWRU estimates shown are that of the European Commission as based on the Commonly Agreed Methodology.

<sup>3</sup> 4 quarter moving average shown for employment rates.

<sup>4</sup> Positive net migration indicates immigration exceeded emigration.

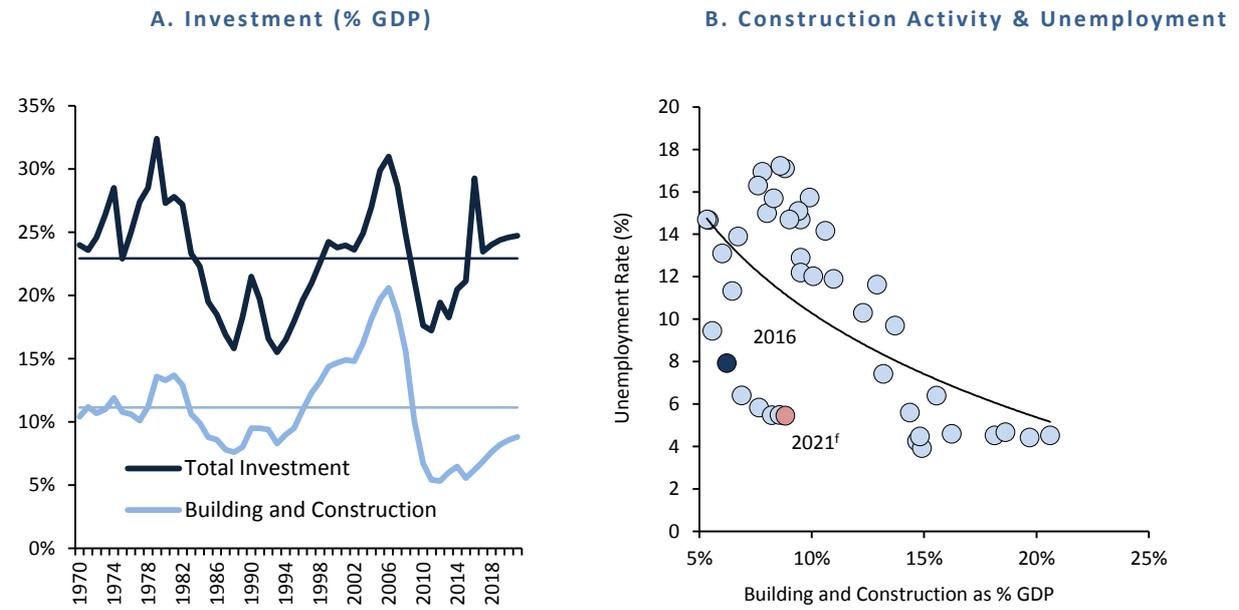
**Figure AC.2: Indicators of External Balances**  
(% GDP)



Sources: CSO; Eurostat and internal IFAC calculations.

Note: Adjusted current account balance excludes estimated impact of redomiciled PLCs. Adjusted measure of net international investment position excludes activities of the International Financial Services Centre and Non-Financial Corporations.

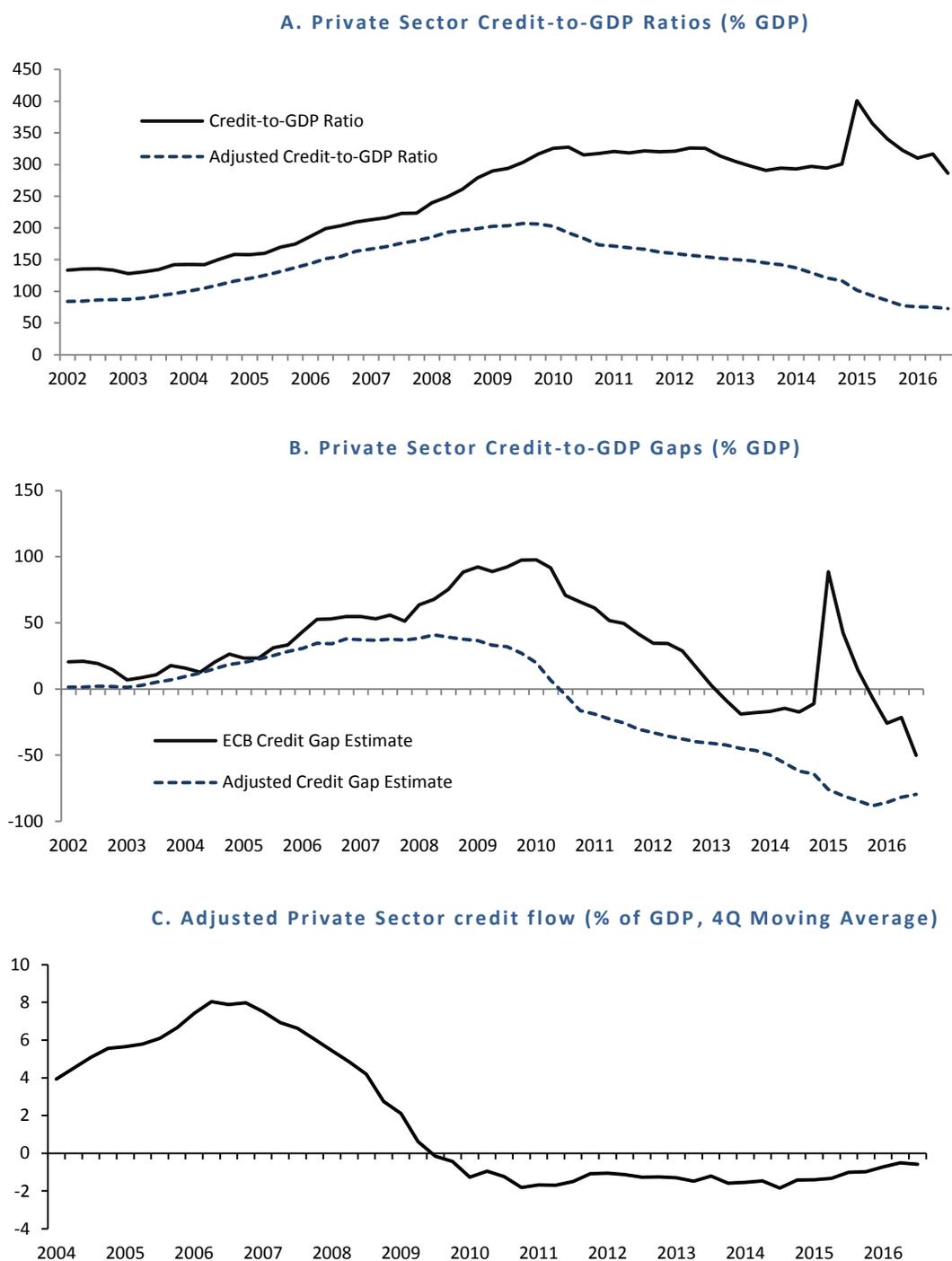
**Figure AC.3: Investment Indicators**  
(% GDP)



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

Notes: Historical averages for investment ratios for 1970-2016 shown as horizontal lines in Panel A.

**Figure AC.4: Credit Indicators**  
(% GDP)

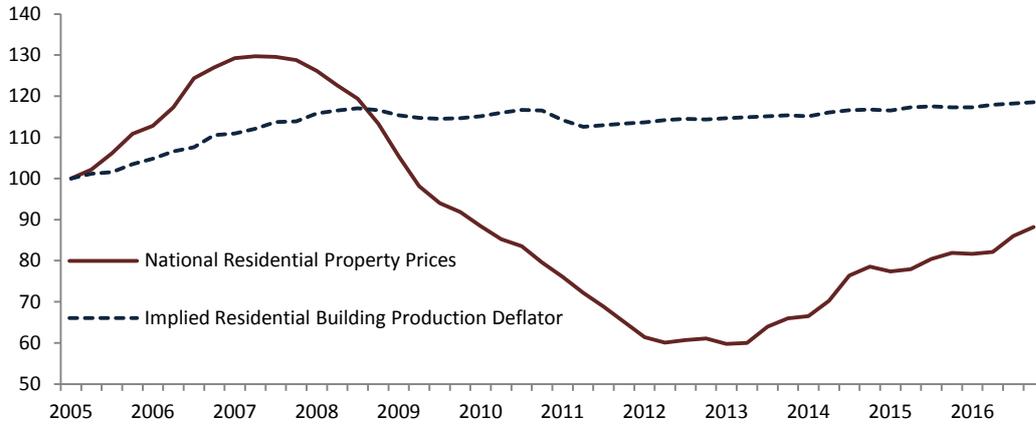


*Sources:* Central Bank of Ireland; CSO; Central Bank of Ireland Money, Credit and Banking and Quarterly Financial Accounts (transaction series used) and internal IFAC calculations.

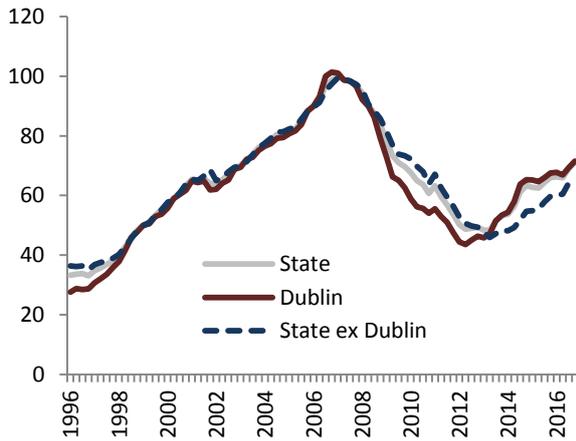
*Notes:* Adjusted ratios are constructed as Irish resident private sector enterprise credit (ex fin. intermediation) plus total loan liabilities of Irish households to adjust for the impact of multinational non-financial corporations given that associated credit is often sourced outside of Ireland (e.g., Box 6: Macro-Financial Review 2015:1, Central Bank of Ireland). A similar methodology to that in ESRB recommendation (18/06/2014) on guidance for countercyclical buffer rates is used to specify a credit ratio as:  $(\text{CREDIT}_t / (\text{GDP}_t + \text{GDP}_{t-1} + \text{GDP}_{t-2} + \text{GDP}_{t-3})) \times 100\%$ . A recursive Hodrick-Prescott filtered trend ratio is specified, with smoothing parameter  $\lambda = 400,000$  to capture the long-term trend in the behaviour of the credit-to-GDP ratio. The credit-to-GDP gap is given by:  $\text{GAP}_t = \text{RATIO}_t - \text{TREND}_t$ .

**Figure AC.5: Housing Market Indicators**

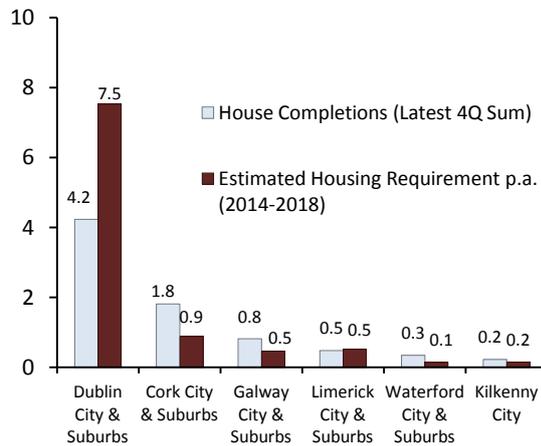
**A. Irish Residential Property: Nominal Prices and Implied Production Costs (Index: Q1 2005=100)**



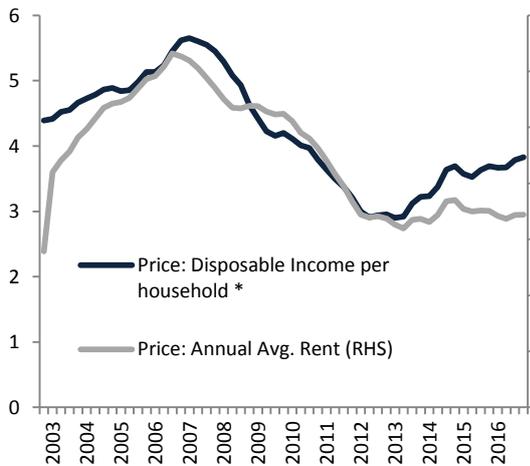
**B. Real Residential Property Prices (HICP Adjusted) Index: Q1 2007 =100**



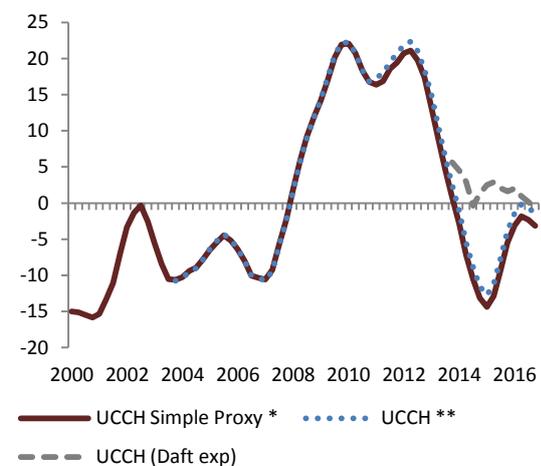
**C. Estimated Housing Requirements and Completions (000s)**



**D. Housing Valuation Ratios**



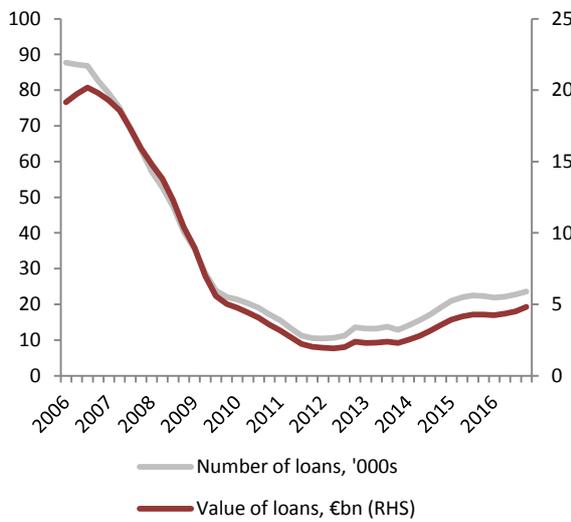
**E. User Cost of Capital for Housing (UCCH)**



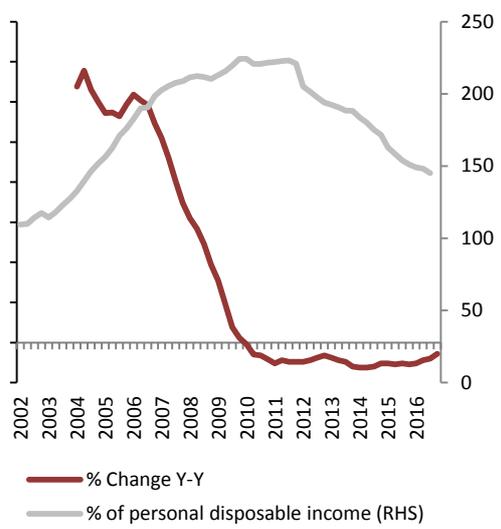
Sources: CSO, Housing agency estimates and Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.

Note: Housing stock is proxied by Long-term loans; ESA-95 basis pre-2012.

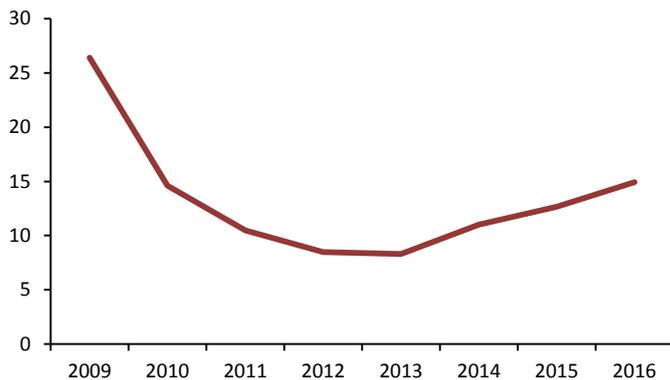
**F. Annualised Residential Mortgage lending (first-time buyer & mover purchase loans)**



**G. Loans to Irish Households for House Purchase**



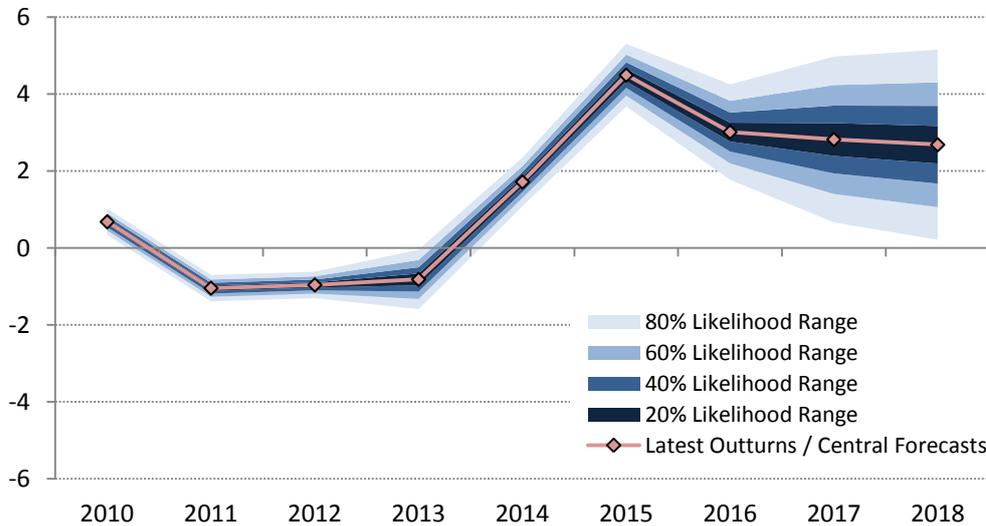
**H. Housing Completions (000s)**



Sources: Central Bank of Ireland; CSO; IBF/PwC Mortgage Market Profile; Department of Housing, Planning, Community and Local Government.

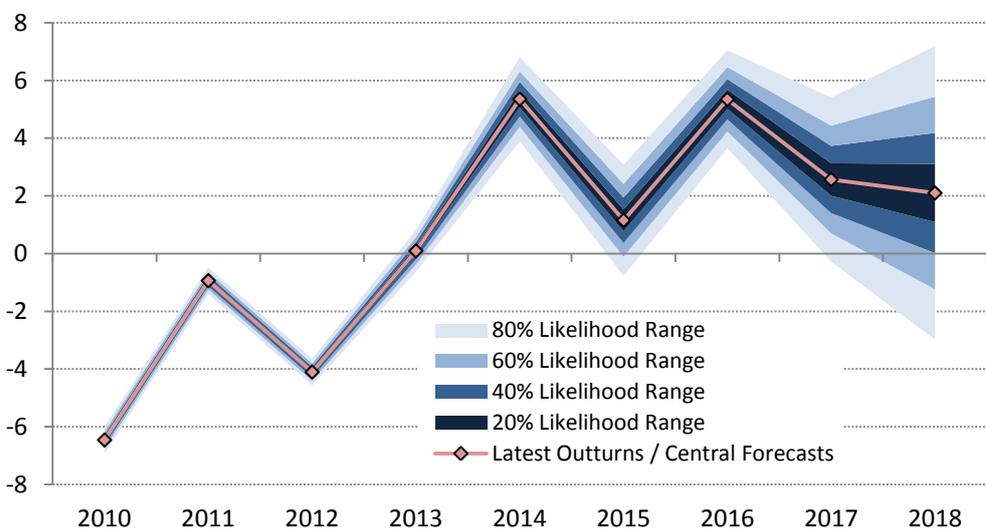
## Appendix D: Fan Charts

**Figure AD.1: Real Consumption Fan Chart**  
Percentage change (year-on-year)



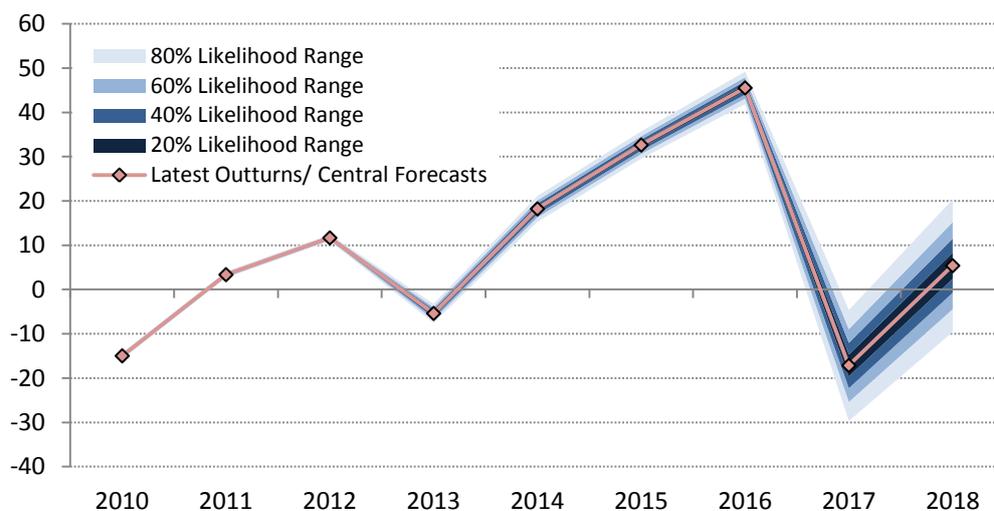
Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to real consumption data. Forecast errors based on 2000-07; 2010-15 sample.

**Figure AD.2: Real Government Consumption Fan Chart**  
Percentage change (year-on-year)



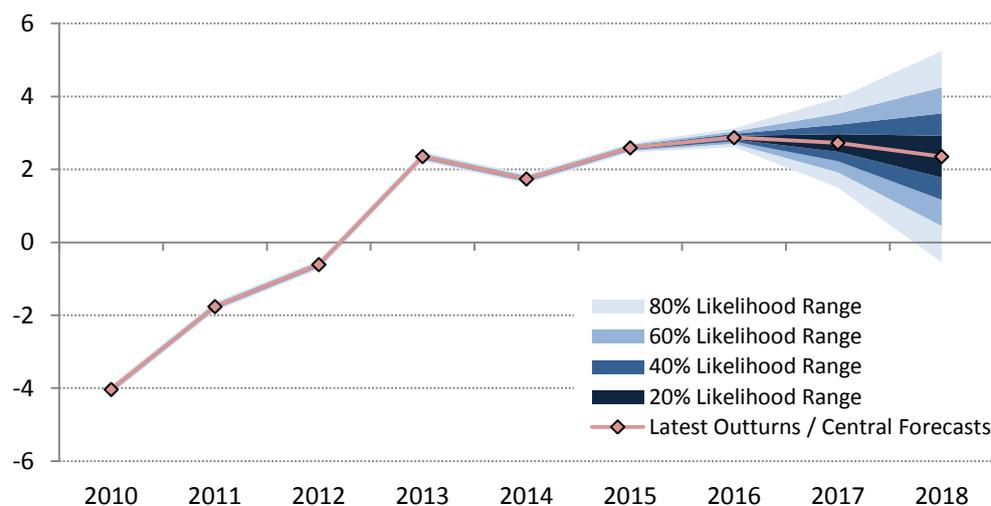
Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to government consumption data. Forecast errors based on 2000-07; 2010-15 sample.

**Figure AD.3: Real Investment Fan Chart**  
Percentage change (year-on-year)



Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to real investment data. Forecast errors based on 2000-07; 2010-15 sample.

**Figure AD.3: Employment Fan Chart**  
Percentage change (year-on-year)



Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to employment data. Forecast errors based on 2000-07; 2010-15 sample.

**Table AD.1: Forecast Errors (Root Mean Squared Errors)**

	T	T+1	T+2
<b>GDP</b>	1.3	2.2	2.5
<b>Consumption</b>	1.2	1.6	2.1
<b>Investment</b>	9.3	11.4	11.8
<b>Government</b>	1.8	3.7	3.5
<b>Employment</b>	0.5	2.0	2.5

Sources: Department of Finance & internal IFAC calculations. Root mean squared errors are calculated based on forecast errors in the period 2000-07; 2010-2015, using forecasts in various *Budget* publications.

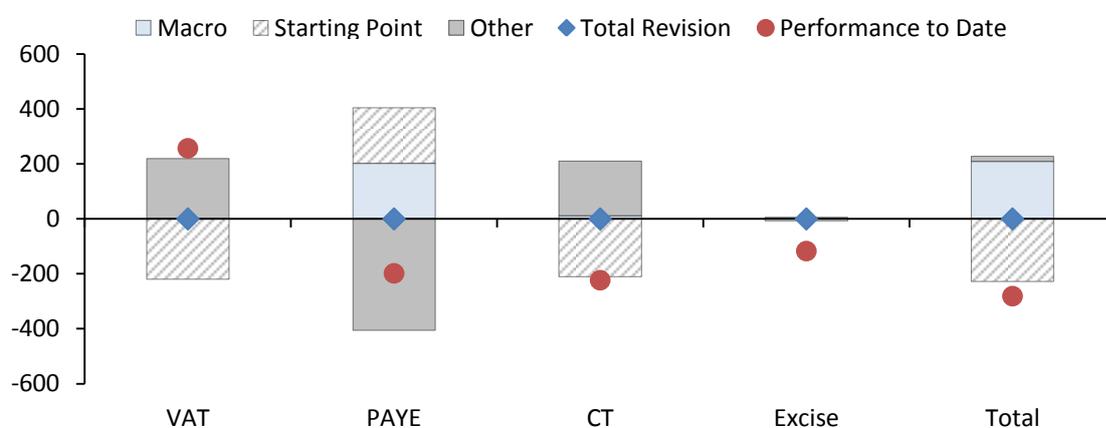
## Appendix E: Exchequer Tax Revenue Forecasts

While the headline forecasts for 2017 for the four main tax heads as outlined in *SPU 2017* remain unchanged from those in *Budget 2017*, the forecasts have been updated for changes in the macroeconomic environment. Figure AE.1 shows the revision to the four largest tax heads from the budget day forecasts to the *SPU 2017* forecasts. It disaggregates the revision into (i) an update to the economic outlook for 2017 (“macro”), (ii) confirmation of the 2016 outturn (“starting point”), (iii) an “other” source of revision which represents miscellaneous factors and Department of Finance judgement. The figure also compares the total revision relative to the performance against the *Budget 2017* profile at end-April.

Starting point error played a prominent role in three of the four main tax heads with 2016 outturn being lower than expected for Corporation Tax and VAT and higher than expected outturn for PAYE. The underperformance of Corporation Tax and VAT were both attributed to higher than expected repayments in the final quarter of 2016 and also to lower than expected inflation in the case of VAT. Judgement and other factors also play an important role for these tax heads.

**Figure AE.1: Source of Revision to 2017 Tax Forecast**

€ Millions (*SPU 2017 - Budget 2017*)



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

Note: The chart breaks down the total revision to forecast down into the macro component, a starting point component and an “other” component. Performance to date shows the tax receipts at end-April relative to profile. A positive performance to date indicates taxes are above profile.

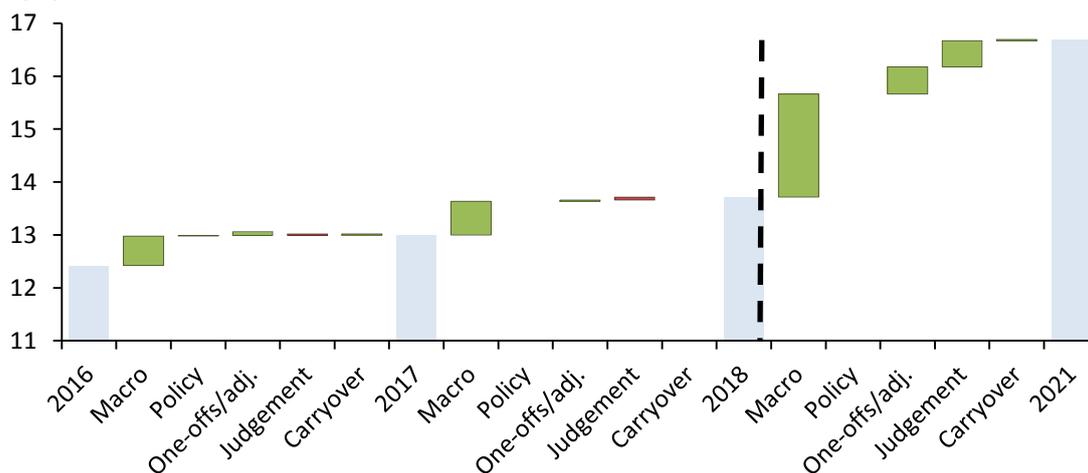
PAYE stands out among the four tax heads as although there is a positive starting point and macro driver affect it continues to underperform relative to profile. In contrast, VAT maintains an over performance for 2017 to end-April relative to the budget day profile. However, both forecasts remain unchanged from *Budget 2017*. Corporation Tax also benefits from a slight increase in the macro driver forecast for 2017. Summing across all four tax heads the total starting point error is negative, with an overall positive macro effect and some positive judgement applied keeping the total revision from *Budget 2017* at zero.

Figure AE: 2(A-D) shows the most important factors influencing the *SPU 2017* forecasts for the four main tax heads over the period 2017-2021. In each case the forecasts for 2017 and 2018 are shown separately while the forecast for 2018-2021 are shown cumulatively. The floating bars show the size of the change in taxes attributable to that source.

**Figure AE.2: A-D**

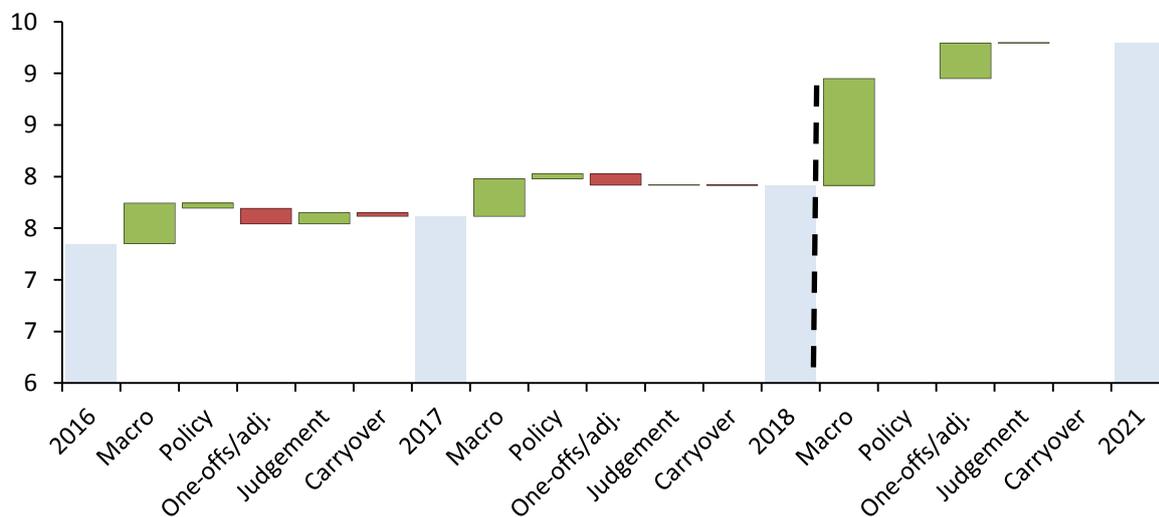
**A: VAT**

€ Billions

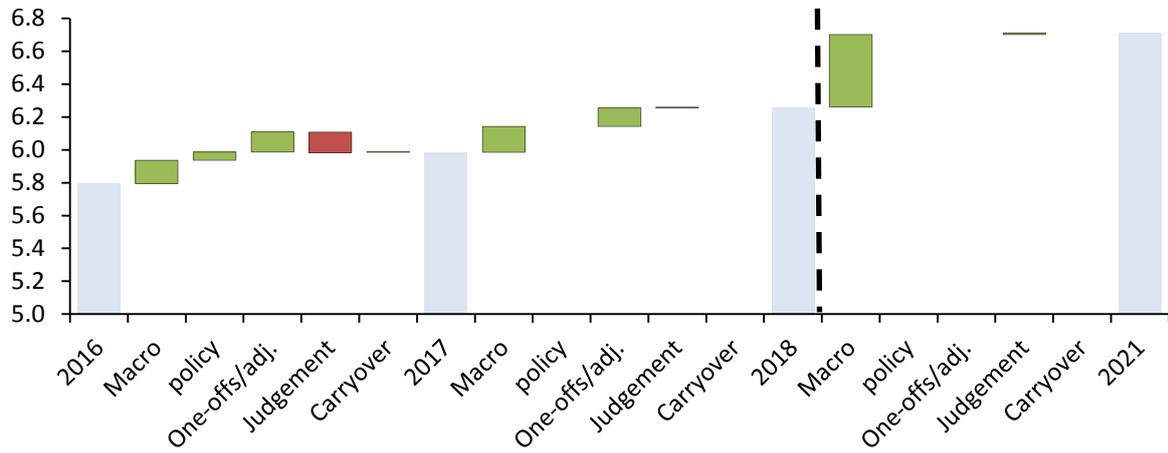


**B: Corporation Tax**

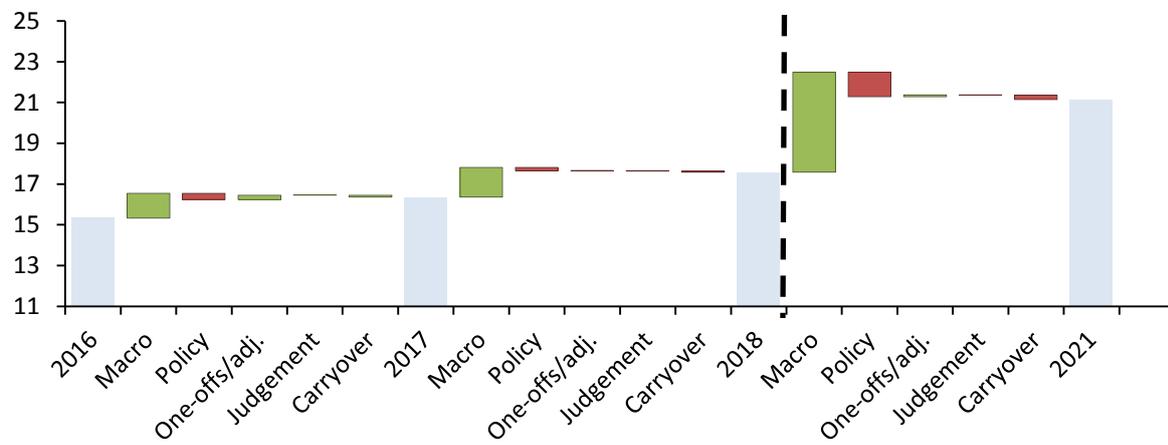
€ Billions



**C: Excise**  
€ Billions



**D: PAYE and USC**  
€ Billions



Sources: Department of Finance; and internal IFAC calculations.

## Appendix F: Additional Tables Relevant for the Fiscal Rules

Figure AF.1: Matrix for Specifying the Annual Fiscal Adjustment Towards the MTO under the *SGP*

	Condition	Required minimum annual structural balance adjustment	
		Debt below 60% of GDP and no sustainability risk	Debt above 60% or sustainability risk
Exceptionally bad times	Real growth < 0 or output gap < -4	No adjustment needed	
Very bad times	$-4 \leq \text{output gap} < -3$	0	0.25
Bad times	$-3 \leq \text{output gap} < -1.5$	0 if growth below potential, 0.25 if growth above potential	0.25 if growth below potential, 0.5 if growth above potential
Normal times	$-1.5 \leq \text{output gap} < 1.5$	0.5	> 0.5
Good times	output gap $\geq 1.5$	> 0.5 if growth below potential, $\geq 0.75$ if growth above potential	$\geq 0.75$ if growth below potential, $\geq 1$ if growth above potential

Source: *Vade Mecum* Update (EC, 2016).

Note: Requirements of > 0.5 percentage points are operationalised within EC assessments as at least 0.6 percentage points.

Figure AF.2: The Overall Assessment under the Preventive Arm

Structural Balance	Adjustment delivered	Deviation	Breach of "significance" threshold
Expenditure Benchmark			
Benchmark Respected	Compliance	Need an overall assessment (cannot lead to a significant deviation procedure)	Need an overall assessment ( <i>can</i> lead to a significant deviation procedure)
Deviation	Need an overall assessment ( <i>cannot</i> lead to a significant deviation procedure)	Need an overall assessment (cannot lead to a significant deviation procedure)	Need an overall assessment ( <i>can</i> lead to a significant deviation procedure)
Breach of "significance" threshold	Need an overall assessment ( <i>can</i> lead to a significant deviation procedure)	Need an overall assessment ( <i>can</i> lead to a significant deviation procedure)	Need an overall assessment, but strong presumption of significant deviation ( <i>can</i> lead to a significant deviation procedure)

Source: *Vade Mecum* Update (EC, 2016).

Note: The threshold for "significance" is judged to be 0.5 per cent of GDP or more for the year under consideration, or an average deviation of 0.25 per cent of GDP over two years.

## Appendix G: Summary Assessment with One-Offs not Excluded

**Table AG.1: Summary Assessment of Compliance with Rules (% GDP unless stated)**

	Code	2015	2016	2017	2018	2019	2020	2021
<b>Corrective Arm:</b>								
General Government Balance	GGB	-2.0	-0.6	-0.4	-0.1	0.1	0.6	1.0
General Government Debt	GGD	78.7	75.4	72.9	71.2	69.5	65.2	62.9
1/20th Debt Rule (Backward/Forward-looking Benchmark)		109.2	96.5	83.5	74.1	71.8	70.1	67.7
<b>Preventive Arm &amp; Domestic Budgetary Rule:<sup>1</sup></b>								
<b>Pillar I. Structural Balance Adjustment Requirement</b>								
CAM Structural Balance	SB	-1.7	-1.4	-1.1	-0.5	-0.1	0.4	1.0
Actual Change in CAM Structural Balance	$\Delta$ SB	1.9	0.3	0.2	0.6	0.4	0.6	0.6
Minimum Change in Structural Balance Required	REQ	n.a.	0.6	0.6	0.6	0.0	n.a.	n.a.
1yr Deviation (p.p.) ...negative = non-compliance		n.a.	-0.3	-0.4	0.0	n.a.	n.a.	n.a.
2yr Deviation (p.p.) ...negative = non-compliance		n.a.	n.a.	-0.35	-0.19	n.a.	n.a.	n.a.
<b>Pillar II. Expenditure Benchmark</b>								
Reference Rate of Potential Growth (% y/y)	R	n.a.	1.9	3.3	3.5	3.5	3.6	3.5
Convergence Margin (p.p.)	C	n.a.	1.8	2.0	2.4	0.0	0.0	0.0
Limit on Real Expenditure Growth <sup>3</sup> (% y/y) = $R_t - C_t$	EB	n.a.	0.1	1.3	1.1	3.5	3.6	3.5
Actual Real Expenditure Growth (% y/y)	er	5.7	-1.3	1.9	1.1	1.2	1.5	1.1
1yr Deviation (€bn) ...positive = non-compliance		n.a.	-0.9	0.4	0.0	-1.6	-1.5	-1.8
1yr Deviation (% GDP) ...positive = non-compliance		n.a.	-0.4	0.2	0.0	-0.5	-0.5	-0.5
2yr Deviation (€bn) ...positive = non-compliance		n.a.	n.a.	-0.3	0.2	-0.8	-1.6	-1.7
2yr Deviation (% GDP) ...positive = non-compliance		n.a.	n.a.	-0.10	0.08	-0.26	-0.50	-0.51
Nominal spending increase permitted before DRMs (€bn)		n.a.	1.2	1.7	1.6	3.6	3.9	4.0
<b>Relevant Macroeconomic Aggregates</b>								
Real GDP Growth (% y/y)	y	26.3	5.2	4.3	3.7	3.1	2.7	2.5
CAM Potential GDP Growth (% y/y)	y*	24.8	5.1	4.2	4.3	3.4	2.9	2.8
CAM Output Gap	OG	1.1	1.2	1.4	0.8	0.5	0.3	0.0
GDP deflator applicable (% y/y)	p	0.9	1.7	1.2	1.3	1.5	1.7	1.7

Sources: SPU 2017, EC Spring 2017 forecasts and internal IFAC calculations.

Note: The Preventive Arm and domestic Budgetary Rule assessments above examine the revenue and expenditure plans included in SPU 2017, using the Department of Finance's estimates of potential output and taking into account the Council's views on one-off/temporary measures. For the Appendix table above only, one-off items assessed to be applicable by the Council have not been excluded from total expenditure (unlike in Table 4.1). The Council's May 2017 publication, "Ex-Post Assessment of Compliance with the Domestic Budgetary Rule in 2016" (IFAC, 2017), uses a similar approach in that it does not strip out one-offs for the Expenditure Benchmark assessment, however, it uses output gap estimates from the European Commission Spring 2017 forecasts. The Expenditure Benchmark is shown as compliant as a result of the inclusion of a one-off conversion of state-owned AIB preference shares in 2015 total expenditure. As the European Commission's Spring forecasts form the basis for any ex-post assessments of compliance, these were used for the output gap estimates underpinning the structural balance in the Council's May publication.

## Glossary<sup>99</sup>

**Automatic stabilisers:** Features of the tax and spending regime which react automatically to the economic cycle and reduce its fluctuations. As a result, the budget balance in per cent of GDP tends to improve in years of high growth, and deteriorate during economic slowdowns.

**Budget balance:** The balance between total public expenditure and revenue in a specific year, with a positive balance indicating a surplus and a negative balance indicating a deficit. For the monitoring of Member State budgetary positions, the EU uses General Government aggregates.

**Cyclical component of budget balance:** That part of the change in the budget balance that follows automatically from the cyclical conditions of the economy, due to the reaction of public revenue and expenditure to changes in the output gap.

**Discretionary fiscal policy:** Change in the budget balance and in its components under the control of government. It is usually measured as the residual of the change in the balance after the exclusion of the budgetary impact of automatic stabilisers.

**Discretionary Revenue Measures (DRMs):** The estimated current year impact of any discretionary revenue raising/decreasing measures (e.g., tax increases/cuts).

**Excessive Deficit Procedure (EDP):** A procedure according to which the Commission and the Council monitor the development of national budget balances and public debt in order to assess and/or correct the risk of an excessive deficit in each Member State.

**Expenditure rules:** A subset of fiscal rules that target (a subset of) public expenditure.

**Fiscal consolidation:** An improvement in the budget balance through measures of discretionary fiscal policy, either specified by the amount of the improvement or the period over which the improvement continues.

**General Government:** As used by the EU in its process of budgetary surveillance under the *Stability and Growth Pact* and the excessive deficit procedure, the General Government sector covers national government, regional and local government, as well as social security funds. Public enterprises are excluded, as are transfers to and from the EU Budget.

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<sup>99</sup> These definitions are taken directly from the European Commission. See European Economy, Occasional Papers 151, May 2013, *Vade Mecum on the Stability and Growth Pact*.

**Maastricht reference values for public debt and deficits:** Respectively, a 60 per cent General Government debt-to-GDP ratio and a 3 per cent General Government deficit-to-GDP ratio. These thresholds are defined in a protocol to the Maastricht Treaty on European Union.

**Medium-Term Budgetary Framework:** An institutional fiscal device that lets policymakers extend the horizon for fiscal policymaking beyond the annual budgetary calendar (typically 3-5 years). Targets can be adjusted under Medium-Term Budgetary Frameworks (MTBF) either on an annual basis (flexible frameworks) or only at the end of the MTBF horizon (fixed frameworks).

**Medium-Term Budgetary Objective (MTO):** According to the reformed *Stability and Growth Pact*, stability programmes and convergence programmes present a Medium-Term Objective for the budgetary position. It is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risks to the sustainability of public finances, and is defined in structural terms.

**Minimum benchmarks:** The lowest value of the structural budget balance that provides a safety margin against the risk of breaching the Maastricht reference value for the deficit during normal cyclical fluctuations. The minimum benchmarks are estimated by the European Commission. They do not cater for other risks such as unexpected budgetary developments and interest rate shocks. They are a lower bound for the Medium-Term Budgetary Objectives (MTO).

**One-off and temporary measures:** Government transactions having a transitory budgetary effect that does not lead to a sustained change in the budgetary position.

**Output gap:** The difference between actual output and estimated potential output at any particular point in time.

**Potential GDP:** The level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build; if output falls below potential, then resources are lying idle and inflationary pressures abate.

**Primary budget balance:** The budget balance net of interest payments on General Government debt.

**Primary structural budget balance:** The structural budget balance net of interest payments.

**Pro-cyclical fiscal policy:** A fiscal stance which amplifies the economic cycle by increasing the structural primary deficit during an economic upturn, or by decreasing it in a downturn. A neutral fiscal policy keeps the cyclically-adjusted budget balance unchanged over the economic cycle but lets the automatic stabilisers work.

**Public debt:** Consolidated gross debt for the General Government sector. It includes the total nominal value of all debt owed by public institutions in the Member State, except that part of the debt which is owed to other public institutions in the same Member State.

**Significant Deviations:** “Significant deviations” are defined in the EU framework as referring to any deviation in structural balance adjustments toward MTO where the deviation is equivalent to at least 0.5 percentage points of GDP in a single year or at least 0.25 percentage points on average per year in two consecutive years. The same thresholds apply for the Expenditure Benchmark (i.e., for deviations in expenditure developments net of discretionary revenue measures impacting on the government balance). When assessed, significant deviations can lead to a Significant Deviation Procedure, which itself can result in sanctions.

**Sovereign bond spread:** The difference between risk premiums imposed by financial markets on sovereign bonds for different states. Higher risk premiums can largely stem from (i) the debt - service ratio, also reflecting the countries' ability to raise their taxes for a given level of GDP, (ii) the fiscal track record, (iii) expected future deficits, and (iv) the degree of risk aversion.

**Stability and Growth Pact (SGP):** Approved in 1997 and reformed in 2005 and 2011, the *SGP* clarifies the provisions of the Maastricht Treaty regarding the surveillance of Member State budgetary policies and the monitoring of budget deficits during the third phase of EMU. The *SGP* consists of two Council Regulations setting out legally binding provisions to be followed by the European Institutions and the Member States and two Resolutions of the European Council in Amsterdam (June 1997).

**Stability programmes:** Medium-term budgetary strategies presented by those Member States that have already adopted the Euro. They are updated annually, according to the provisions of the *Stability and Growth Pact*.

**Stock-flow adjustment:** The stock-flow adjustment (also known as the debt-deficit adjustment) ensures consistency between the net borrowing (flow) and the variation in the stock of gross debt. It includes the accumulation of financial assets, changes in the value of debt denominated in foreign currency, and remaining statistical adjustments.

**Structural budget balance:** The actual budget balance net of the cyclical component and one-off and other temporary measures. The structural balance gives a measure of the underlying trend in the budget balance.

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