Irish Fiscal Advisory Council

Fiscal Assessment Report

November 2017

ISBN 978-0-9933976-4-6

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Table of Contents

Boxes

Appendices

Foreword

The Irish Fiscal Advisory Council (IFAC) 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 (SPU) 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 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, Kevin Timoney, and Ainhoa Osés Arranz.

The Council would like to acknowledge the help of the staff of the Central Statistics Office. The Council would also like to thank Máire O' Dwyer for copy editing the report.

This report was finalised on 23 November 2017. More information on the Irish Fiscal Advisory Council can be found at www.fiscalcouncil.ie

Summary Assessment

The Council assesses the fiscal stance adopted by the Government in *Budget 2018* for next year to be conducive to prudent economic and budgetary management. The Government increased expenditure at a faster pace than the initial limit permitted under the fiscal rules by introducing revenue-raising measures to fund these initiatives. This meant that the Government followed through on their plans to keep net spending and tax plans within the available gross fiscal space for 2018 of around €1.7 billion. The Department of Finance's *Summer Economic Statement 2017* set out that plan, while the Council's *Pre-Budget 2018 Statement* recommended it be adhered to.

The Budget plans allow for a gradual pace of debt reduction; moderate increases in current expenditure; and a ramping up of public investment to rates that are among the highest in the EU, while also complying with the requirements of the fiscal rules. For the medium term (2019–2021), the general government balance is forecast to improve marginally in 2019, while projected over-compliance with the fiscal rules implies small budget surpluses in 2020 and 2021. With strong growth rates forecast and low effective interest rates on government debt, this should facilitate a steady pace of debt reduction from ratios that are still among the highest in the OECD (4th highest net-debt-to-GNI* and 5th highest net debt-to-revenue). The Council's illustrative estimate of the cost of providing today's level of public services over the forecast horizon to 2021 implies that the spending increases currently budgeted for in *Budget 2018* over 2019–2021 would fully accommodate demographic pressures and the cost of maintaining real public services and benefits. By 2021, public investment is planned to rise to ratios that – across a number of measures – would be higher than that of EU peers.

Looking to the medium term, there is a risk that the economy may experience overheating should a rapid – albeit necessary – response from the construction sector to persistent supply shortfalls arise which is not offset by countercyclical measures elsewhere. While there is much uncertainty over the exact cyclical position of the Irish economy, it would appear that any remaining output gap is relatively small. There is a possibility that overheating would occur in the years ahead if growth were to continue at elevated levels, which could occur if there was a rapid response from the

construction sector to persistent supply shortfalls. Improvements in the public finances in such circumstances might primarily reflect cyclical or transient developments. Temporary revenue inflows should be used to reduce debt at a faster pace or to build up buffers against future shocks.

There are also a number of downside risks visible over the medium-term horizon. Although a hard Brexit is the central scenario envisaged in *Budget 2018*, the impact of Brexit is highly uncertain, as is the timing of its economic effects. These effects could be more negative than currently forecast, particularly if the impact is front-loaded, which is not assumed in existing estimates. An additional risk is posed by potential future changes to tax arrangements among Ireland's trading partners. There are also important domestic risks. The housing market and the highly concentrated production base are the most pertinent.

A further risk stems from the fact that measurements of the cycle underpinning the fiscal rules have a poor record of distinguishing between cyclical and sustainable developments. The methodology used to identify a "sustainable" pace of growth for spending in the fiscal rules (the EU Commonly Agreed Methodology) has a number of known shortcomings. Foremost among these is the issue of procyclicality. This shortcoming can mean that unsustainable improvements in the public finances that primarily reflect cyclical factors are inappropriately treated as permanent and structural changes.

The Government should set out a credible plan for the medium term. A lack of clarity means that the current medium-term budgetary plans could be undermined, particularly if a procyclical pattern of budgetary increases occurs as has often been the case. There are a number of solutions that could help to ensure the current plans are made credible:

(i) make a firmer commitment to use the Expenditure Benchmark as an anchor for fiscal policy even when the Medium-Term Objective (MTO) is met;

(ii) strengthen the proposed design of the Rainy Day Fund. The Fund could serve as a useful countercyclical tool to ensure more sustainable growth and prudent management of the public finances. However, the current

proposal is not adequate to achieve the necessary countercyclical effects and is small in size. Achieving these goals within the EU fiscal rules is a difficult challenge and remains to be fully addressed.

(iii) develop the Department's toolkit for assessing the cyclical position of the economy beyond the EU's Commonly Agreed Methodology; and

(iv) adhere to a target for public investment spending over the medium term. These measures should help to alleviate known measurement issues and prevent an excessively expansionary fiscal stance from being followed as in previous cyclical upswings. It would also allow the Government to reduce high debt levels at an appropriate pace and to build up buffers against future shocks.

It is unclear whether some of the revenue-raising measures included in *Budget 2018* can be expected to have the same yield as is estimated for 2018 over the long run. For example, the expected yield from changes to stamp duty rates appears to be based on estimates made at a high point in the cycle of non-residential development and so the projected yield may prove to be relatively optimistic in terms of its long-run impact. In keeping with the spirit of the new budgetary framework, permanent expenditure increases should be funded by revenue-raising measures that can be considered sustainable over the long run.

The MTO for the public finances is expected to be achieved in 2018, based on forecasts contained in *Budget 2018*. The current MTO targets a structural deficit – that is, a budget deficit corrected for one-off items and the impact of the business cycle – of 0.5 per cent of GDP. While there have been breaches in required progress towards the MTO over 2016-2017, the expected change in the structural balance exactly meets this requirement for 2018. *Budget 2018* forecasts suggest non-compliance with the spending rule (the Expenditure Benchmark) over a two-year assessment for 2017 and 2018, with forecast spending 0.1 per cent of GDP (€0.4 billion) in breach of the two-year average for these years. This second pillar of the fiscal rules is designed to ensure spending growth remains anchored to growth in medium-term potential output and revenue. Planned breaches of the Expenditure Benchmark should be avoided.

1. Assessment of Fiscal Stance

Key Messages

- The Council assesses the fiscal stance adopted by the Government in *Budget 2018* for next year to be conducive to prudent economic and budgetary management. The Government increased expenditure at a faster pace than the initial limit permitted under the rules by introducing revenue-raising measures to fund these initiatives. This meant that the Government followed through on plans to keep existing spending and tax plans within the available gross fiscal space for 2018 of around €1.7 billion. The Department of Finance's *Summer Economic Statement 2017* set out that plan, while the Council's *Pre-Budget 2018 Statement* recommended it be adhered to.

- Looking further ahead, the budget plans allow for a gradual pace of debt reduction; moderate increases in current expenditure; and a ramping up of public investment to rates that are among the highest in the EU, while also complying with the requirements of the fiscal rules.

- Over the medium term, there is a risk that the economy may experience overheating should a rapid – albeit necessary – response from the construction sector to persistent supply shortfalls arise, which is not offset by countercyclical measures elsewhere. Reflecting the fact that improvements in the public finances in such circumstances might primarily reflect cyclical or transient developments, it would be better to use any associated revenues to reduce debt at a faster pace or to build up buffers against future shocks. This is especially important when the economy is growing strongly and when large spending commitments (e.g., for pensions) are still outstanding. Additional risks stem from the fact that the fiscal rules and cyclical measurement under the Commonly Agreed Methodology (CAM) have a poor record of distinguishing between cyclical and sustainable developments.

- The Government should set out a credible plan for the medium term. A lack of clarity on how to deal with cyclical/transient revenues means that the current medium-term budgetary plans could be undermined, particularly if a procyclical pattern of budgetary increases occurs as has often been the case. There are a number of solutions that could help to achieve this: (i) make a firmer commitment to use the Expenditure Benchmark as an anchor for fiscal policy even when the Medium Term Objective (MTO) is met; (ii) strengthen the proposed design of the Rainy Day Fund; (iii) develop the Department's toolkit for assessing the cyclical position of the economy beyond the CAM; and (iv) adhere to a target for public investment spending over the medium term. These measures should help to alleviate known measurement issues and prevent an excessively expansionary fiscal stance from being followed as in previous cyclical upswings.

Table 1.1: Summary Table

% GDP unless stated, general government basis (based on *Budget 2018* forecasts)

	2015	2016	2017	2018	2019	2020	2021
Revenue (% GNI*) [1]	40.8	38.1	39.6	39.6	39.3	39.3	39.4
Expenditure (% GNI*) [1]	42.5	39.3	40.1	39.9	39.4	38.9	38.1
Balance (% GNI*) [1]	-1.7	-1.2	-0.4	-0.3	-0.2	0.4	1.3
Interest Expenditure (% GNI*)	4.0	3.3	3.1	2.8	2.7	2.5	2.2
Primary Expenditure (% GNI*) [1]	38.5	36.1	37.0	37.0	36.8	36.4	35.8
Primary Balance (% GNI*) [1]	2.3	2.1	2.7	2.6	2.5	2.9	3.5
Real Expenditure Net of DRMs (% Change) [2]	2.9	2.5	1.6	1.2	1.6	1.9	1.6
CAM Structural Balance [3]	-2.2	-1.7	-1.1	-0.5	0.2	0.4	0.9
Change in CAM Structural Balance (p.p.) [3]	1.6	0.5	0.6	0.6	0.7	0.3	0.5
CAM Structural Primary Balance [3]	0.4	0.5	0.9	1.3	1.9	2.1	2.4
Change in CAM Structural Primary Balance (p.p.) [3]	0.3	0.1	0.4	0.4	0.6	0.1	0.3
Gross Debt	76.9	72.8	70.1	69.0	67.1	63.5	61.2
Net Debt	65.8	63.7	61.2	59.6	57.7	56.6	54.6
Gross Debt (% GNI*)	116.6	106.0	106.5	104.7	101.8	96.4	93.1
Net Debt (% GNI*)	99.8	92.8	93.1	90.5	87.5	85.9	83.0
Gross Debt (% Revenue)	285.5	276.1	268.7	264.4	259.3	245.6	236.5
Net Debt (% Revenue)	244.3	241.7	234.7	228.5	222.9	219.0	210.9
Real GDP Growth (% Change)	25.6	5.1	4.3	3.5	3.2	2.8	2.6
Nominal GDP Growth (% Change)	34.7	5.2	4.9	4.4	4.4	4.1	4.1
Nominal GDP Level (€bn)	262.0	275.6	289.1	301.8	315.1	328.0	341.5
Nominal GNI* Growth (% Change)	11.9	9.4	0.6	4.5	4.5	4.0	4.0
Nominal GNI* Level (€bn)	172.9	189.2	190.2	198.9	207.7	216.0	224.6
CAM Potential Output (% Change) [3]	23.6	5.6	4.5	4.5	4.4	3.6	3.1
CAM Output Gap (% Potential GDP) [3]	2.2	1.7	1.6	0.7	-0.5	-0.4	-0.2
Expenditure One-Offs (€m) [1]	2,111	170	178	0	0	0	0
Revenue One-Offs (€m) [1]	0	554	0	0	0	0	0
Net One-Offs (€m) [1]	-2,111	384	-178	0	0	0	0

Sources: Department of Finance (*Budget 2018*); CSO; and internal IFAC calculations.

[1] One-offs/temporary measures are removed to get a sense of the underlying fiscal position. The one-off amounts removed here are those assessed by the Council to be applicable for 2015-2016, with Department of Finance one-offs used thereafter. The main one-offs assessed by the Council to be applicable include the AIB transaction in 2015 (€2.11 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). The Department has included the cost of refunding water charges as a one-off expenditure item in its estimates for 2017 (€0.18 billion).

[2] This refers to the expenditure aggregate used for assessing the pace of growth in spending under the expenditure rule (Chapter 4) – in this case, one-offs are excluded for all years. It captures non-interest spending growth net of any discretionary revenue measures introduced (e.g., tax increases/cuts). Measures that lead to additional revenues allow equivalent increases in spending growth relative to the limit set under the fiscal rules, while measures that reduce revenues constrain the pace of spending growth.

[3] These measures are based on the output gap estimates produced under the Commonly Agreed Methodology (CAM). The CAM has a number of drawbacks that can lead to inappropriate estimates for the Irish economy (Boxes B and E).

1.1 Introduction

The 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 stance. This chapter draws on analysis in the rest of the report in assessing the fiscal stance in *Budget 2018*. 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 macroeconomic and fiscal context that serves as the backdrop to *Budget 2018*. Section 1.3 assesses the fiscal stance relevant to 2017 and 2018, while Section 1.4 discusses issues relating to the fiscal stance over the medium term.

1.2 The Macroeconomic and Fiscal Context

1.2.1 Cyclical Developments and Risks

A range of measures of economic activity suggest that the Irish economy is continuing to grow rapidly. Moreover, the pace of growth in recent years would appear to be above what is typically expected for the Irish economy and may be considered a strong cyclical rebound. The Department's forecasts show that this is set to moderate, though the Irish economy is notoriously volatile and there are risks to both the upside and downside.

Looking at indicators of economic activity that are less prone to distortions from the activities of foreign-owned multinational enterprises, it is clear that the sharp rebound in the economy is proving resilient. Figure 1.1 highlights some of these key aggregates (Chapter 2 assesses *Budget 2018*'s macroeconomic forecasts in more detail).

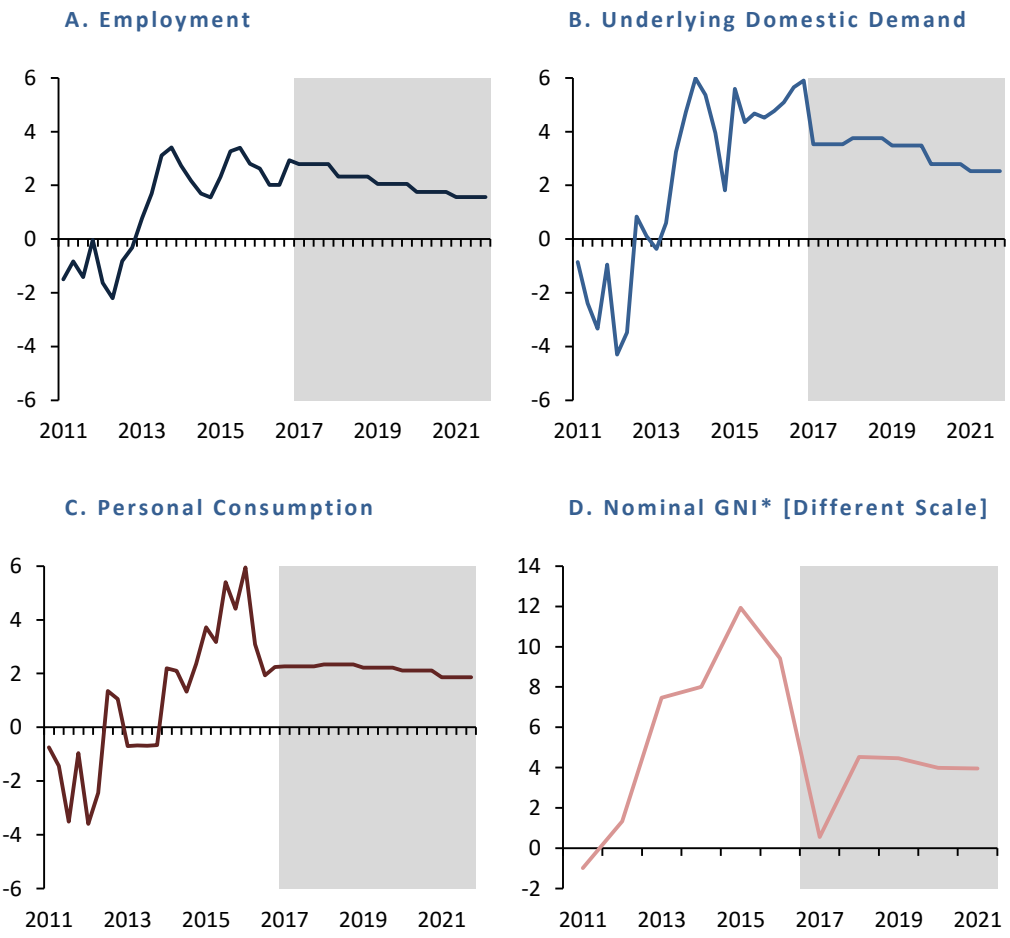
The sharp rebound in activity is evident from year-on-year growth rates for employment, underlying domestic demand and personal consumption.[1] Employment, in particular, is growing by 3 per cent year-on-year and 4.5 per cent when looking just at full-time employment. This follows the steep downturn amid the collapse of the property/credit bubble. The new modified Gross National Income measure (GNI*), which is currently only available in nominal terms, also shows the sharp rebound in recent years and the Department of Finance's forecasts show nominal growth rates averaging 4.2 per cent per annum over the period 2018 – 2021 (the Department of Finance have linked the expected slowdown in 2017 to timing effects related to volatile profit outflows).[2]

[1] Underlying domestic demand is an aggregate measure comprising consumer spending plus investment plus government consumption, and excludes investment in intangibles and aircraft, both of which have a high import content.

[2] GNI* is an aggregate that is designed to more accurately capture national income of Irish residents compared to GDP, given that GDP is prone to distortions from foreign-owned multinational enterprises. GNI* differs from actual GNI in that it excludes (i) the depreciation of foreign-owned, but Irish-resident, capital assets (specifically, intellectual property and aircraft-leasing assets) and (ii) the undistributed profits of firms that have re-domiciled to Ireland.

Each of the measures is forecast to continue to grow over the forecast period 2018–2021, albeit with growth rates moderating. Consumer spending and underlying domestic demand are expected to grow by 2.1 per cent and 3.1 per cent per annum, respectively (slower than their long-run averages and less than in recent years).[3] Employment is forecast to rise by, on average, close to 2 per cent per annum. Again, this is less than its long-run average, and represents a moderation in the pace of growth from the resurgence seen in previous years.

Figure 1.1: Indicators of Economic Activity
Volumes (unless stated), percentage change, year-on-year



Sources: CSO; and internal Irish Fiscal Advisory Council (IFAC) calculations.
Note: Budget 2018 forecasts/estimates are demarked by grey shaded regions. As forecasts are in annual average terms, quarterly growth rates are extrapolated within year and presented as being identical for each quarter in panels A, B and C. Underlying Domestic Demand strips out intangibles and aircraft investment in full as these are, in the main, imported, with little impact on real GDP.

Risks

While the Department's forecasts are for a moderation in growth from the pace evident in recent years, there are risks that growth could be faster or slower than is currently expected. In the near-

[3] The long-run averages for real annual growth in consumer spending and underlying domestic demand are 3.9 and 3.4 per cent, respectively (1996–2016), while recent years (2014–2016) have seen average growth rates of 3.2 per cent and 4.8 per cent, respectively.

term, upside risks are quite prominent. As shown in Chapter 2, several forecasting agencies have revised upwards the pace of expansion envisaged for 2018. This is notable in consumer spending forecasts for example, where the Department is forecasting growth of 2.3 per cent as compared to Central Bank of Ireland, ESRI and consensus forecasts of 2.7 per cent, 2.8 per cent and 2.8 per cent, respectively. In addition, there are upside risks in residential construction for the near-term. Price pressures associated with ongoing shortfalls in supply could ultimately lead to a very sharp supply response, which would likely manifest in an accelerated pick-up in housing completions. *Budget 2018* forecasts a steady, modest increase in completions of around 4,000 each year out to 2021, when completions are forecast to reach 35,000 units per annum. This level of annual completions is in line with estimates of what is needed to meet annual requirements for new housing. However, completions could increase more rapidly than this to meet any pent-up demand or cumulative backlog that has built up as a result of the ongoing shortfall in output.

With unemployment rates already forecast to fall to 5.5 per cent by late-2018, upside risks to domestic activity – if they materialise – could see unemployment continue to fall to lower levels. The Department views the 5.5 per cent unemployment rate as close to "full employment" (i.e., a rate of unemployment consistent with unchanged wage/price inflation).[4] While such estimates are highly uncertain, it seems plausible that a rapid expansion of labour-intensive construction activities would lead to a period of above-normal levels of economy-wide activity so that unemployment rates may fall below what would be expected in a context of low/stable inflation and absent any other imbalances.[5]

For the long term, a number of key downside risks are apparent. In particular, the range of potential outcomes to Brexit negotiations adds to uncertainties about the future trend growth rates to which the Irish economy may revert in the long run. A hard Brexit – though forming the basis for the Department's central forecast scenario – could have negative impacts that are more front-loaded, more severe, and more persistent than is assumed.[6]

[4] This view is implied by comments in *Budget 2018* regarding how the economy is approaching full employment, for instance. The Department's CAM-based estimate of the natural rate of unemployment is 5.2 per cent in 2021, but this closeness would appear to be a coincidence driven in part by the procyclicality of these estimates in the CAM framework and the fact that the forecasts of actual unemployment are close to the same level for most of the forecast years (i.e., for 2018–2021 actual unemployment averages 5.5 per cent). For a recent exploration of the interaction between wage growth and labour market conditions in the Irish context, see Linehan *et al* (2017).

[5] It is possible, for example, that full employment is now consistent with higher unemployment rates should individuals who are long-term unemployed face difficulties in returning to employment following the crisis for structural reasons or otherwise (e.g., difficulties retraining, etc.). Adding to uncertainty in this regard are arguments that factors such as globalisation, changing labour market structures, and pent-up wage deflation may have weakened the usual Phillips curve relationship, which predicts a positive response in inflation to lower unemployment rates (see Yellen, 2014; Daly, Hobijn, and Lucking, 2012; and Iakova, 2007).

[6] A hard Brexit could have impacts that are more frontloaded and more severe than is assumed, but the persistence of the impact is especially important for medium-term fiscal policy. In terms of how frontloaded the effects are, analysis by Morgenroth (2017) highlights how disintegrations can produce sharp negative impacts on trade in the years

Changes in US, UK and EU policies, particularly in relation to corporation tax, could also negatively impact on foreign direct investment (FDI) flows into Ireland. The Irish export base is highly concentrated (reflecting this, two-fifths of Irish corporation tax receipts in 2016 came from ten companies) and uncertainty about future tax policy (including a Common, Consolidated Corporate Tax Base in the EU and proposed changes to the US corporate tax regime) adds to risks concerning future investment decisions.

Other risks stem from Euro Area monetary policy, which could prove inappropriately loose for Ireland over the medium term. Accommodative monetary policy looks set to continue in the Euro Area at least in the short term, but quantitative easing is to be scaled back from next year.[7] As growth in Ireland is forecast to continue to outperform the Euro Area, there is a risk that monetary policy could be looser than is optimal for Ireland in the coming years.[8]

The Cyclical Position of the Economy

Although the exact cyclical position of the economy is highly uncertain and clear signs of overheating are not evident as yet, circumstances can change rapidly. Given the relatively strong growth rates forecast and upside risks, there is a possibility that overheating could occur over the coming years. The range of estimates used by the Council suggests an output gap that would appear to be nearly closed in 2017. Figure 1.2 shows the Council's estimates of the cyclical position of the economy (the "output gap") as compared to the official estimates presented in *Budget*

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immediately following break-ups. This would contrast with the view of a more gradual shock-adjustment where the economy then returns to a new steady-state level. In terms of severity, the labour intensity of UK demand is typically much greater than for an average Irish trading partner of Ireland reflecting, e.g., the relatively greater importance of the UK market to labour-intensive activities such as agri-foods exports (Lawless and Morgenroth, 2016). In terms of the persistence of the effects, Ireland's trend growth rate could also be negatively impacted by a hard Brexit. Estimates produced by the ESRI using COSMO present the impact on Ireland's output as a level shock (i.e., a shock where the level of output is permanently lower but growth rates are not impacted over the long run). However, one could also view a hard Brexit as representing a shock to long-run or trend growth rates. This would be consistent with the view that Irish exporters face significant challenges in diversifying to other export markets following a hard Brexit and that the openness of an economy to trade, capital and labour market flows is an important determinant of a country's long-run potential growth rate. As discussed in IFAC (2016b; 2017b), there are a number of possible channels (including trade, capital and labour market flows) through which UK potential output growth could be lowered as a result of Brexit. This could have knock-on consequences for Irish potential output growth rates. Lower potential output growth in the UK would bode poorly for the Irish economy's potential output growth if Irish exporters were unable to offset demand shortfalls by expanding into other markets and opening up to new markets can be challenging. Using gravity model approaches applied to Irish data, Lawless (2010) identifies strong negative effects on exports from geographical distance to markets, while a commonly shared language and well-developed communications infrastructures are factors found to be supportive of exports.

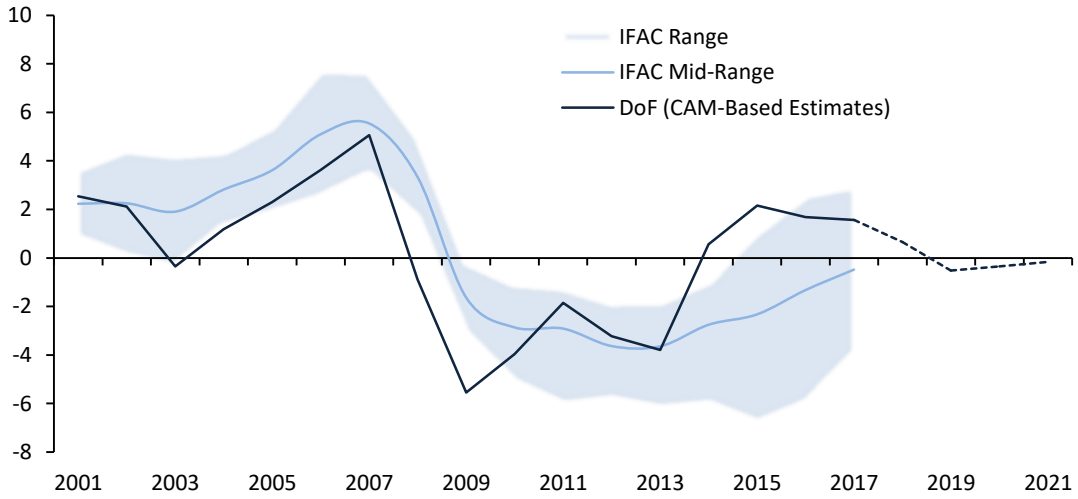
[7] The ECB announced in October that it intended to start a gradual process of withdrawal of quantitative easing. This would see it, first, halving its bond-buying programme from €60 billion per month to €30 billion per month beginning in January 2018, with purchases continuing at that pace until end-September 2018. Plans could alter depending on the ECB Governing Council's views on the path of inflation (e.g., a less favourable outlook or financial conditions inconsistent with progress towards the inflation target could alter these plans).

[8] One aspect of the previous boom that has been highlighted in subsequent research is the impact that inappropriate monetary policy can have in terms of amplifying the business cycle (e.g., Crowley and Lee, 2008), with low interest rates cited as one contributing factor in the lead-up to Ireland's crisis (Honohan, 2010). Others suggest that – in Ireland's case – the weight of blame is better placed on Irish domestic fiscal and regulatory policy (Whelan, 2013).

2018.[9] The Council's estimates focus on measures of domestic economic activity – a focus warranted by the fact that domestic activities tend to be typically more tax-rich in nature and, hence, of greater significance for the setting of appropriate fiscal policy.[10] The IFAC range for annual potential output growth rates averages 2½ to 4 per cent over the most recent five-year period (the implied mid-range is 3¼ per cent).[11]

Figure 1.2: Ireland's Output Gap Estimates

Percentage of potential output



Sources: CSO; Department of Finance (*Budget 2018*); and internal IFAC calculations.
Note: The IFAC range is produced based on 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*. Since then a number of approaches have been added to the Council's toolkit for estimating potential output. Given the distortions to standard measures like GDP and GNP and the relative importance of domestic activity to fiscal outcomes, the range currently focuses on measures produced by using measures of domestic economic activity. The Department's estimate is based on the CAM which is known to have a number of shortcomings leading to inappropriate estimates for Ireland (Boxes B and E).

The differences in the levels of the output gap since 2014 as estimated under the CAM and in IFAC's mid-range are notable. CAM estimates imply that the economy moved to a position where it was operating above-capacity from 2014 onwards, with a large positive output gap of 1.6 per cent in 2017 – a position expected to ameliorate over the forecast horizon. Applying the standard interpretation of such measures to this rather odd profile would imply that the economy is currently overheating or that "excess" employment is evident so that a large portion of the unemployed are not regarded as likely to contribute to the productive potential of the economy

[9] The output gap is a summary measure intended to provide an estimate of whether the economy is currently operating below, close to, or above its potential level. This has an important bearing on the perceived sustainability of economic developments and of tax revenues (e.g., a positive output gap might be said to indicate that the economy is overheating or that tax revenues might be temporarily higher than can be sustained).

[10] An example of this is "Domestic GVA", which tries to isolate domestic activity by ignoring sectors in the economy that are dominated by foreign-owned multinationals. Sectors are defined as being dominated by foreign owned-multinationals if they account for over 85 per cent of turnover in that sector.

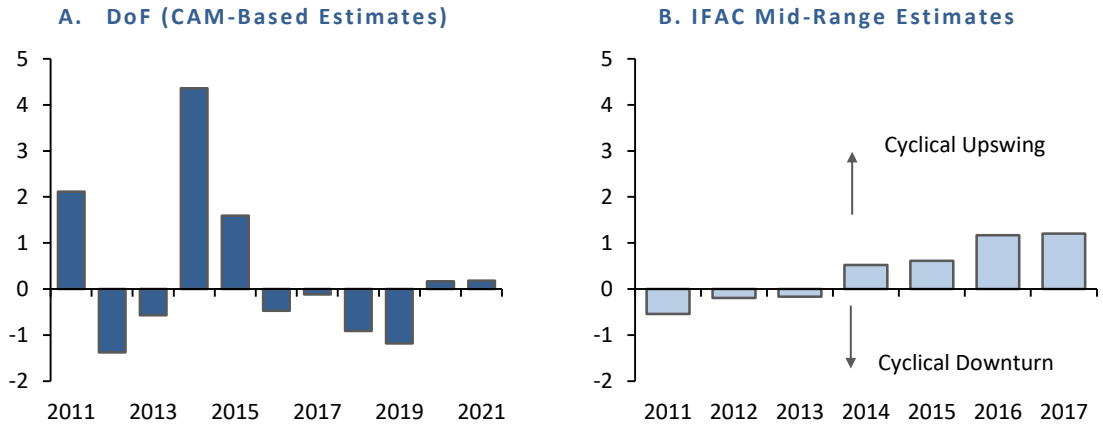
[11] Recent estimates based on simulations using the ESRI's model COSMO (McQuinn *et al*, 2017) indicate that the potential growth rate of the aggregate economy is approximately 3.3 per cent (comprising 2.4 per cent for the non-traded sector and 3.9 per cent for the traded sector)and that the Irish economy will reach its potential level by 2018.

(Darvas, 2013). However, the IFAC mid-range points to a sustained negative output gap that only began to close from 2013 onwards so that by 2017 the economy is finally close to its potential level. The implications for an appropriate fiscal policy are strikingly different.

The Council supplements its analysis of summary output gap measures with a "modular approach" to assessing imbalances in the economy. This approach is intended to help with the assessment of cyclical developments in the economy (see Chapter 2 and Appendix C). The approach involves assessing key sources of imbalances that can help to discern whether or not the economy may have departed from normal levels of output, with a view to examining these "modules" in a more systematic manner.

The view that the economy is operating close to its potential is reinforced by a number of indicators. In particular, labour market indicators suggest that conditions are tightening, though evidence of price/wage pressures is relatively limited. Similarly, aggregate investment indicators signal levels of activity gradually returning to historical norms. By comparison, housing market conditions show greater evidence of supply shortages and credit conditions are still relatively subdued.[12] On balance these indicators would reinforce the view that, while the economy may not yet be overheating, it is likely to be operating close to its potential.

Figure 1.3: Changes in the Cyclical Position of the Economy
Estimates of the change in Ireland's output gap (percentage points of potential output)



Sources: CSO; Department of Finance (*Budget 2018*); and internal IFAC calculations.
Notes: See notes to Figure 1.2. Positive changes in the output gap indicate cyclical upswings but do not give any information about the economy's position with respect to its potential level (i.e., although the output gap may be becoming relatively more positive, the economy may still be operating below its potential such that overheating may not be a concern).

Assessing the estimated change in the output gap can give a sense of how cyclical conditions are evolving over time, notwithstanding uncertainties about its current level (Figure 1.3). The

[12] The Central Bank of Ireland's latest Macro Financial Review (2017:1) shows that, while lending is increasing, year-on-year growth in credit to households and non-financial corporations remains negative as both sectors continue to deleverage. Gross new lending to SMEs, however, has been rising since early-2014, while some categories of household credit are showing positive growth, including non-mortgage credit and mortgage lending at fixed rates.

Department's official estimates based on the CAM show that the output gap has become less positive in 2016 and 2017, with this continuing in 2018 and 2019 (i.e., implying that the economy is "cooling" in relative terms). This view is implausible and does not fit with a broader assessment of economic information. The Council's view is that – notwithstanding the high degree of uncertainty involved – the recent pace of growth in the economy is more likely to imply that the output gap has been closing from a negative position. This is in contrast with the indications of CAM estimates. Consistent with this view, the IFAC mid-range estimates of the change in the output gap suggest that the output gap has become consistently less negative from 2014–2017 (Figure 1.3B). This pattern could be expected to continue, particularly if upside risks materialise.[13]

Should the recent pace of growth continue, then the economy might be expected to begin to operate above its potential soon. As Chapter 2 notes, one of the main upside risks to growth in the short- to medium-term is output from the construction sector. If the economy continues to grow rapidly, any remaining slack in the economy would be eliminated. From this position, a necessary rise in construction activity could boost growth further leading to a situation where output may exceed sustainable levels, and offsetting measures may be required.

1.2.2 Current Fiscal Context

Government Budget Balance

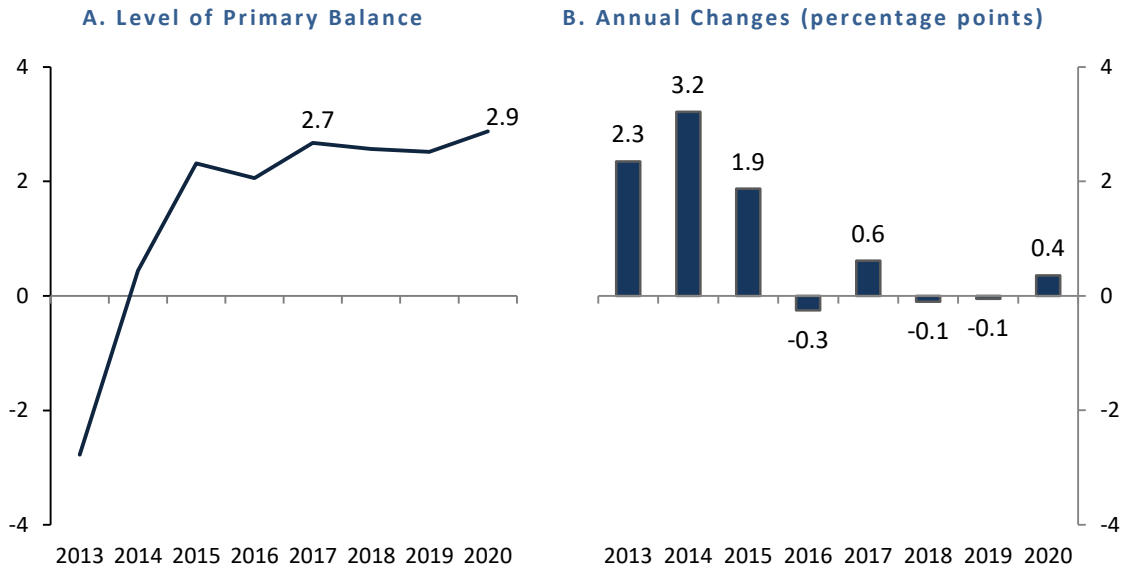
While interest and growth dynamics are important for debt developments (see Box H), a government has greater control over a third key driver: its budget balance. This represents the difference between the total annual revenue and expenditure of a government. Assessing a government's budget balance is complicated by factors such as one-off items (e.g., revenues that are unpredictable or not representative of the underlying position); the effects of the cycle (e.g., boom-time revenues); and spending outside of the government's control. With this in mind, the Council focuses on budgetary measures that may be considered useful indicators of how recent or envisaged policies will influence the fiscal stance and debt sustainability.

One useful – though not perfect – measure of the fiscal stance is the primary balance excluding one-off items. This represents the balance of general government revenue and non-interest spending where one-off items are removed. Removing interest costs may be considered useful when: (i) costs are typically the result of past decisions rather than current policies (i.e., they depend on the stock of debt, which depends on past deficits); (ii) interest costs are volatile or unpredictable – in this case the approach can provide a more stable alternative for assessing the fiscal stance (this is evident in Ireland post-crisis with sharp changes in global interest rates, Irish

[13] As the output gap estimates produced by the Council rely on variables for which no forecasts are available, estimates only run to 2017 in Figure 1.2. However, models for which forecasts are available would suggest an output gap that becomes slightly positive over the period to 2021 (using the Department's central scenario).

risk premia, and official lending); (iii) interest costs are important from an economic perspective (in Ireland's case, interest payments on government debt securities traditionally flow more to non-resident holdings than to resident holdings); and (iv) considering the inflation–interest nexus (high interest rates paid on government debt during times of high inflation may overstate the extent of the deficit that would prevail in a low-inflation environment – this matters more where real interest rates diverge from real growth rates).[14]

Figure 1.4: Changes in Primary Balance Slowing
% of GNI*, 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 (see Table 1.1).

While the path for the primary balance in the early forecast years is relatively stable, there are questions as to how realistic the planned improvements for 2019 onwards are. As a share of GNI*, the primary balance for 2017 is expected to be 2.7 per cent, and is set to remain broadly at that level for the next few years (Figure 1.6). It deteriorates marginally in 2018 and 2019 before rising to 2.9 per cent in 2020 (forecasts for 2021 show the primary balance picking up more rapidly to 3.5 per cent in 2021, but forecasts for the years 2019 onwards are predicated on the basis of unused fiscal space, which may be an unrealistic scenario – see Chapter 3).

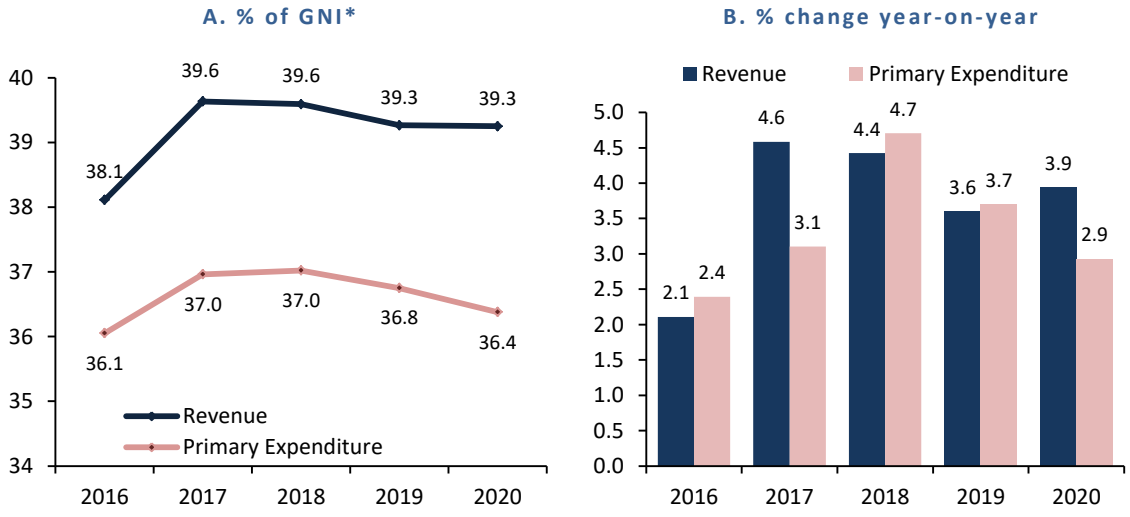
In contrast to the slow pace of improvement in the primary balance for the period 2017–2020, *Budget 2018* plans show that the overall balance improves by some 0.8 percentage points of GNI*

[14] Andritzky (2012) offers a useful international examination of holdings of government bonds based on residency. Central Bank of Ireland holdings accumulated through the ECB's Public Sector Purchase Programme have increased the domestic share of Irish Government bonds in recent years, but non-resident holdings still represented 55 per cent of total medium- and long-term debt as of end-2016. The CSO publish estimates of interest flows specifically. For 2016, they show that total interest payments were €6.2 billion, of which €3.9 billion (63 per cent) was payable to non-residents (Table 4, CSO *Government Finance Statistics*).

over the forecast horizon. This would suggest that expected interest savings equivalent to 0.6 percentage points of GNI* would be used to fund additional expenditure. With interest rates already at multi-century lows, the use of such a large a proportion of these savings to fund additional expenditure raises questions about its sustainability.

An improving underlying fiscal position is suggested by estimates of the change in the CAM-based structural primary balance, but these are prone to mismeasurement. The CAM suggests that cyclical deteriorations in coming years will imply a primary balance that is improving by more than the unadjusted measure when accounted for the cycle. The CAM-based structural measure rises by an average of +0.4 percentage points each year over 2017–2020 (Table 1.1). This is clearly a surprising indication and is largely the result of the CAM's implicit view that the economy was already overheating between 2014 and 2017, but will experience a cyclical downturn in coming years – a view completely at odds with what is implied by other indicators (Section 1.2.1). A more plausible path for the period after 2018 – assuming that the Department's forecasts for average real GDP growth of 3 per cent per annum materialise – would be that the economy experiences a very moderate cyclical upswing in future years. This would imply that a more appropriate measure of the structural primary balance would look more like the unadjusted measure (i.e., showing limited improvements out to 2020), in effect assuming that the economy remains close to potential.

Figure 1.5: Government Revenue and Primary Expenditure
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.

For the period 2017–2020, *Budget 2018* plans show revenue growth broadly in line with growth in nominal GNI*, while non-interest spending growth is marginally slower. As a result, non-interest expenditure falls from 37 per cent of GNI* in 2017 to 36.4 per cent in 2020, while revenue levels

average close to 39.5 per cent of GNI* (2017–2020). Importantly, the plans are predicated on the suggestion that spending growth will broadly keep pace with revenue growth for 2017–2019, but will slow to a pace below revenue growth thereafter (Chapter 3).

The lower primary expenditure levels in 2019–2021 reflect unused gross fiscal space as assumed in the budgetary projections (Chapters 3 and 4). This is partly explained by allocations to the Rainy Day Fund, but also by unrealistically low forecasts for certain areas of spending (Chapter 3).

It is worth questioning just how realistic the expenditure forecasts are for later years. The Government has previously indicated a policy of minimum compliance with the fiscal rules, but *Budget 2018* forecasts would appear to imply an additional unused fiscal space in 2019, 2020 and 2021 of just over €1 billion per annum, separate to the Rainy Day Fund allocations. Setting aside some unused fiscal space is a sensible approach when there are reasons to believe that the rules may allow overly procyclical budgetary increases, but a credible plan is needed to ensure that such increases do not occur. There has been a consistent pattern of upward revisions to expenditure ceilings in recent years, while plans for the Rainy Day Fund have already been scaled back (Box A). This might suggest that even minimum compliance could be a stretch to assume, let alone the *Budget 2018* plans for over-compliance.

Government Debt

A legacy of the crisis is that Ireland's debt burden is still comparatively high, with this burden understated by standard comparisons against GDP. Ireland's government debt levels, when set against a more comparable measure of national income like GNI*, would suggest that debt was among the highest in the OECD as of end-2016 (Figure 1.6). On this basis, Ireland's net debt burden ranks as the fourth highest in the OECD with only Portugal, Italy and Japan showing higher net debt burdens.[15] While the GNI* measure is not available for other countries, a similar picture emerges when it is compared against alternative ratios like net debt as a percentage of total general government revenue (Ireland's ratio is fifth highest in the OECD).[16] On this basis, Ireland's net debt burden is just over 240 per cent of annual government revenue as of end-2016.

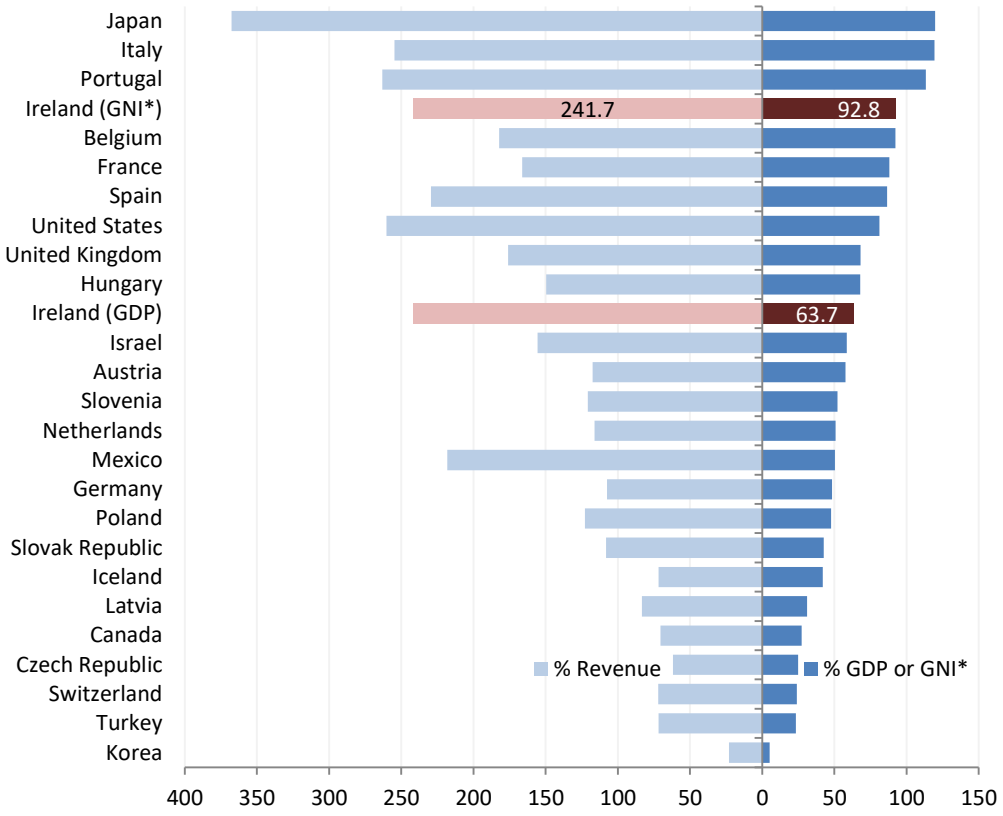
Under the Government's current plans, Ireland's net debt levels are expected to decline at a steady pace. Figure 1.7 highlights the steep rise in debt ratios for Ireland over the crisis period as sudden losses in transient revenue streams associated with the property/credit bubble materialised and as costly banking support measures were introduced. It also shows the projected path for net debt to

[15] Note that net debt data are not available for Greece.

[16] Debt-to-revenue ratios are somewhat problematic as the ratios capture actual tax revenue rather than the size of the potential tax base. Nevertheless, the ratios based on government revenue are likely to give a more informative and transparent picture of changes in the fiscal position over time than are those based on distorted GDP data, and such ratios are on a like-for-like basis when comparing with other countries.

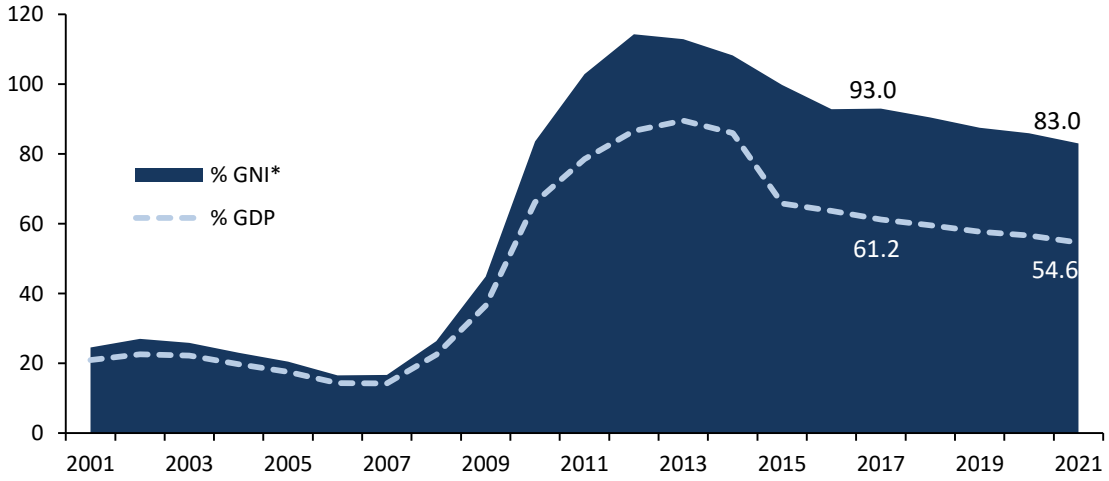
2021 under the plans outlined in *Budget 2018*. The *Budget 2018* plans would suggest that net debt levels will fall steadily from 93 per cent of GNI* at end-2017 to 83 per cent by end-2021.

Figure 1.6: OECD Countries Net Government Debt (Top 25 Countries)
End-2016 net general government debt as % revenue (LHS); and as % GDP or GNI* (RHS)



Sources: CSO; Eurostat; IMF World Economic Outlook (October 2017) and internal IFAC calculations.
Note: CSO data are used for Ireland; IMF data for Turkey, Switzerland, Canada, Korea, Iceland, Mexico, Israel, US, and Japan, while Eurostat data are used for remaining countries.

Figure 1.7: Ireland's Net Government Debt Levels
% GNI* and % GDP, General Government basis



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

The Government has identified a medium-term debt ratio target of 45 or 55 per cent of GDP as a basis for steering fiscal policy. Such targets – if well specified, time-bound, and set against an appropriate denominator – can be useful. However, the Government's target does not meet any of these criteria. It is set against the distorted GDP denominator, which *Budget 2018* acknowledges has less information content for Ireland.[17] It is predicated on vaguely specified time commitments, which potentially would only be met over a very long period (e.g., *SPU 2017* applied the target for the "mid-to-late 2020s", while *Budget 2018* suggests the 45 per cent target will apply "once the major capital projects have been completed").[18] It is not clear if the targets are levels to be achieved (hard targets) but not exceeded (ceilings) or whether these will account for cyclical developments in any way. Furthermore, there does not appear to be a very strong commitment to the debt target. Within the space of six months, the targets have already been revised up to 55 per cent (*Budget 2018*) from an original 45 per cent target (*SPU 2017* and *Budget 2017*).

More importantly, the level of the proposed 55 per cent target cannot be considered low or particularly prudent. IFAC (2017b) showed that using 2016 data, a 55 per cent debt-to-GDP target would be broadly equivalent to an 80 per cent debt-to-GNI* ratio (similarly, a 45 per cent debt-to-GDP ratio would equate to over 65 per cent of GNI*). This is still high, compared with pre-crisis levels when debt-to-GNI* ratios were closer to 20-25 per cent, and when compared with international norms.

The 55 per cent target appears to be anchored in terms of *SGP* commitments (which are specified as a percentage of GDP). The argument follows that, while a ceiling for the debt ratio in the *SGP* is set as 60 per cent of GDP, a 55 per cent ratio is more prudent because it is 5 percentage points lower than this. These arguments do not withstand much scrutiny, given the GDP distortions already specified. The Department acknowledges in *Budget 2018* that GNI* "more accurately reflects the income standards of Irish residents than GDP", yet the distorted GDP denominator is still used as the basis for setting the Government's debt targets.

There are additional reasons why a prudent debt ceiling for Ireland – even if more appropriately defined in terms of GNI* – might be lower than the 60 per cent ceiling in the *SGP*. First, the ceiling is exactly that – a maximum ceiling, not a target – so that staying close to this does not necessarily represent a prudent approach. Second, as Box H shows, Ireland has a volatile history in terms of its debt dynamics, which would argue for setting a debt ceiling below the *SGP* limits (these are

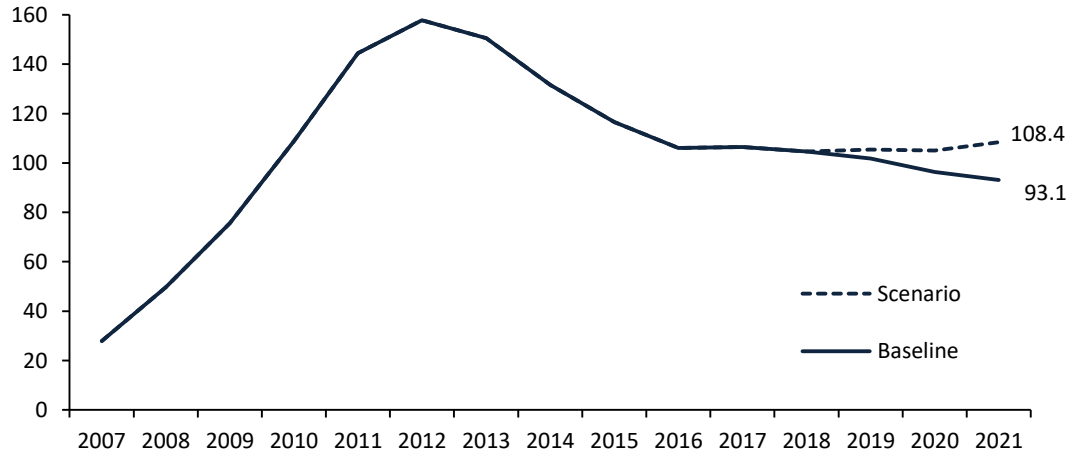
[17] The use of GDP as a denominator could become increasingly less meaningful over time should a continued onshoring of intellectual property products further inflate its level in coming years, especially when associated activities tend to be less tax-rich in nature.

[18] The Department's *Annual Report on Public Debt in Ireland June 2017* sets out some long-term debt forecasts, but it is not clear that these are intended as targets.

primarily set with larger EU Member States in mind).[19] Third, additional considerations might lead one to conclude that an appropriate debt level is more prudent when account is taken of the government's wider balance sheet, long-term expenditure pressures and pension commitments.

The steady pace of debt reduction in *Budget 2018* is broadly appropriate, but there are risks to the trajectory, particularly from growth. In considering the appropriate fiscal stance for the coming period, it is important to bear in mind the sensitivity of the debt trajectory to alternative assumptions. One scenario could see a sharp and sustained reduction in growth rates relative to *Budget 2018* forecasts from 2019 onwards. This could happen if 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, reducing Corporation Tax receipts and output. Assuming a typical forecast error for each of the years 2019, 2020 and 2021, the debt-to-GNI* ratio could stagnate at high levels, rising from 106.5 per cent at end-2017 to 108.4 per cent by end-2021, in the absence of any policy response. This compares to a fall to the 93.1 per cent ratio implied by budget figures. In a situation where debt is already at high levels, the impact of such shocks on creditworthiness can be more pronounced. There are also upside risks, and one scenario is that overheating could occur in coming years. In such a scenario, it would be wiser to use any additional cyclical revenues to reduce debt at a faster pace or to build up buffers against future shocks. The Rainy Day Fund could have a useful role in supporting this (Box A).

Figure 1.8: Illustrative Shock Scenario from 2019 Onwards
Gross Debt as % of GNI*, general government basis



Sources: CSO; Department of Finance (*Budget 2018*); 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 (–2 p.p. relative to baseline growth rates) in each of the years 2019, 2020 and 2021. Nominal GNI* is assumed to have an elasticity with respect to nominal GDP of 1.0, which is applied only to the deviation in nominal GDP from its baseline. The pace of debt reduction from 2011–2016 is distorted by the liquidation of the IBRC such that lower liabilities were measured on the government's balance sheet.

[19] As Box H shows, while larger Member States tend to have interest-growth differentials where half of the observations are within a range of less than two percentage points, Ireland's span over a much wider range of 8 percentage points.

1.3 Assessment of the Fiscal Stance in 2017 and 2018

Given the macroeconomic and fiscal context, this section assesses the fiscal stance adopted in *Budget 2018*.

The Council assesses the fiscal stance adopted by the Government in *Budget 2018* for next year to be conducive to prudent economic and budgetary management. As recommended in the Council's *Pre-Budget 2018 Statement*, the Government followed through on plans to keep net spending and tax plans within the available gross fiscal space for 2018 of around €1.7 billion. This was consistent with the Department's initial estimates of the available scope for tax and spending changes in 2018 if the fiscal rules were fully met (i.e., the "gross fiscal space"). The estimate of €1.7 billion was based on the required 0.6 percentage point-of-GDP improvement in the structural balance as Ireland moves towards its medium-term budgetary objective.

As Table 1.2 shows, the Government increased expenditure at a faster pace than the initial limit permitted under the rules by introducing revenue-raising measures to fund these initiatives. Starting with the €1.7 billion gross fiscal space that was first estimated as available in the *SES 2017*, the nominal resources available for new measures in 2018 were reduced to €0.65 billion once a number of non-budget-day measures were accounted for. These included measures already committed to by the Government (−€0.9 billion), carryover costs from *Budget 2017* (−€0.65 billion), and offsetting revenues arising from not indexing tax bands and credits (+€0.5 billion).

Table 1.2: Gross Fiscal Space and Budgetary Measures
€ billions

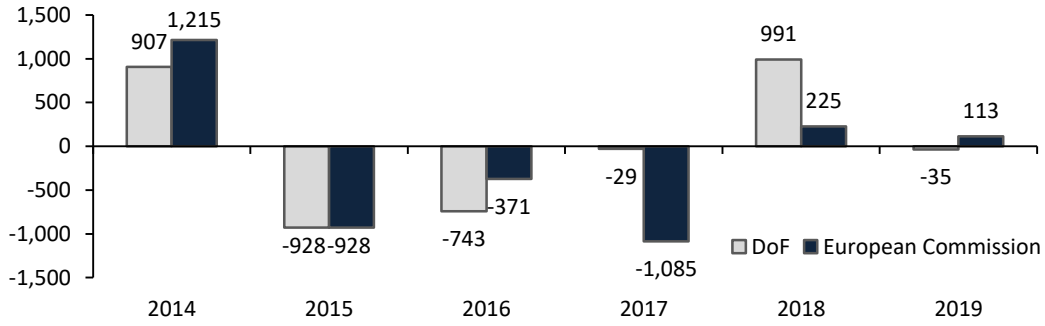
	Yield	Cost	Total
Starting Point			
Gross Fiscal Space			1.7
Pre-Committed Spending		-0.9	
Carryover Costs of *Budget 2017*		-0.65	
Non-Indexation of Tax System	+0.5		
Nominal Resources for New Measures Prior to Budget 2018			***0.65***
Budget Package			
New Current Expenditure		-0.87	
New Capital Expenditure		-0.22	
USC		-0.18	
Income Tax		-0.16	
Stamps	+0.38		
Corporation Tax	+0.15		
Compliance	+0.10		
Other	+0.20		
Total Budget 2018 Package	***+0.83***	***-1.43***	***-0.60***

Sources: Department of Finance (*Budget 2018*); and internal IFAC calculations.

On budget day, €1.1 billion of spending measures were introduced (€0.87 billion current spending and €0.22 billion capital spending) along with €0.34 billion of tax cuts.[20] These measures were offset by €0.83 billion of discretionary revenue-raising measures. This meant a net package of €0.6 billion as compared to the original estimated scope of €0.65 billion for new measures prior to the Budget (IFAC 2017b).

At face value, the Budget appears broadly consistent with initial plans for tax and spending changes, but there may be some questions over the quality of revenue-raising measures introduced under the Budget (Box F). The discretionary revenue-raising measures introduced in *Budget 2018* marked a departure from recent budgets where tax cuts outweighed revenue-raising measures (Figure 1.9). For 2018, the Department estimates the impact of discretionary revenue measures at close to €1 billion (0.5 per cent of GNI*) when non-indexation of the tax system is included. However, there are uncertainties around projected yields and the accuracy of these costings has an important bearing on compliance with the fiscal rules and the actual fiscal stance.[21]

Figure 1.9: Estimated Impact of Current Discretionary Revenue Measures
€ million



Sources: Department of Finance (*Budget 2018*); and European Commission (Autumn 2017).

There are questions over whether some of the revenue-raising measures introduced in *Budget 2018* will be able to deliver the anticipated revenue gains, particularly over the longer term. Revenue-raising measures should reflect estimated yields that can be considered sustainable over the long run so that these can be expected to support long-lasting expenditure increases. This would also be in keeping with the spirit of the new budgetary framework. However as Box F notes,

[20] These amounts include the impact of the new public sector pay agreement (Table 9, Economic and Fiscal Outlook, *Budget 2018)*.

[21] European Commission (2017b) estimates indicate a much lower impact at just €0.2 billion or 0.1 per cent of GNI*. Some €0.5 billion of the difference is attributable to non-indexation amounts not (yet) included by the Commission, while the remainder relates to different views about the impact of various discretionary revenue measures. As noted in the Commission's assessment of the *Stability Programme Update 2017*, differences in the appraisal of the discretionary revenue measures were related to fact that "the stability programme includes, among them, the non-indexation of income tax bands". While the initial Commission assessments of the expenditure benchmark in spring 2017 did not reflect the additional revenues linked to the continued non-indexation of income tax bands, a subsequent overall assessment did. It is expected that, while the Autumn 2017 estimates do not currently capture these additional revenues associated with non-indexation of the tax system for 2018, the overall assessment will again include them in much the same way that the spring assessment did.

the yield from the increase appears to have been estimated at a high point in the cycle. This casts doubt on whether or not the measure will yield the anticipated receipts on an ongoing basis. In particular, the Government should take care to avoid building an increased reliance on transient or cyclical revenue streams given the lessons of the last crisis.

Following the budget, there is a risk that the fiscal rules could still be breached in 2017 and 2018, albeit current plans suggest that any breach is unlikely to be by a sufficient margin to risk potential sanctions. Unexpected savings in certain departments mean that limited over-runs together with public sector wage increases in 2017 are unlikely to lead to a breach of the fiscal rules that is sufficient to trigger potential sanctions. For 2018, given that budget plans are consistent with the required adjustment in the structural balance as estimated in the *SES 2017*, the risks of a breach in the fiscal rules are relatively limited though questions over the sustainability of some revenue-raising measures introduced in the Budget are important in this context (Chapter 3 and 4).

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

There are greater challenges in terms of setting and executing an appropriate fiscal stance over the medium-term. The budget plans allow for a gradual pace of debt reduction; moderate increases in current expenditure; and a ramping up of public investment to rates among the highest in the EU, while also complying with the requirements of the fiscal rules. An important milestone in attaining the Medium-Term Objective of a structural deficit of 0.5 per cent of GDP also looks within reach for 2018. However, key challenges face the Government as Ireland recovers from its latest fiscal crisis.

High debt levels and risks to the growth trajectory suggest that complacency should be avoided. Debt levels are still among the highest in the OECD and there are notable risks to the growth trajectory outlined in *Budget 2018* plans. A harder-than-expected Brexit and tax policy-related risks could negatively impact on long-term growth rates making debt reduction more difficult over the long term. Upside risks are also evident depending on the response of the residential construction sector to persistent supply shortfalls in housing. The resulting employment and income growth would be expected to add substantially to cyclical tax revenues. It may be necessary to counteract any resultant overheating through offsetting measures elsewhere. The Government should be conscious that revenues from an expansion in housing output to above-normal levels (i.e., where upside risks to housing completions relative to the central scenario in *Budget 2018* materialise) would likely be transient in nature.

The budgetary plans for 2019–2021 show a degree of over-compliance with the spending rule, which it would be sensible to stick to (Chapter 3). The only explicit commitment for the medium term has been one of minimum compliance with the fiscal rules.[22] This coupled with a pattern of

[22] *Budget 2017* noted that: "the medium-term fiscal projections outlined here reflect the Government's stated policy intention to use of available fiscal space". It also stated that forecasts would be updated to reflect changes in estimates

overruns and breaches of the fiscal rules in recent years could – if continued – undermine the current budget plans. The current fiscal context and outlook underline the need to restore the capacity to withstand future shocks and to ensure that the economy does not overheat, thus avoiding repeats of past policy mistakes. Given the risk of overheating and the fact that the Budget plans are consistent with ramping up capital spending, meeting demographic and price pressures, and achieving other budgetary aims, it would be wise to refrain from adjusting budgetary plans upwards to a substantial degree over the medium term. A better use of resources from any cyclical upswing or favourable revenue conditions, such as strong corporation tax receipts, would be to use revenues to build buffers (as in the Rainy Day Fund) or to reduce debt at a faster pace.

Avoiding a return to procyclical fiscal policy is paramount over the medium term. To mitigate this risk, a number of steps should be taken. First, the Government should make a firmer commitment to following the spending rule; second, the Department should develop its toolkit for assessing the cyclical position of the economy beyond the CAM; third, the proposed design of the Rainy Day Fund should be strengthened; and fourth, a proposed investment rule should be pursued.

i. **The Government should make a firmer commitment to following the spending rule (the Expenditure Benchmark) after the MTO is reached.** The Expenditure Benchmark is designed to ensure that spending growth does not follow a procyclical pattern. While it is meant to be consistent with the structural balance rule, differences in its calculation provide some safeguards around measurement issues. In particular, since the rule uses a ten-year average of potential output growth rates to determine "sustainable" real expenditure growth rates, this leaves it less exposed to annual volatility in CAM-based estimates of the output gap (which determine structural balance estimates).

   However, following the Expenditure Benchmark is not a panacea. While the spending rule is less susceptible to measurement issues compared to the structural balance, it could still imply an inappropriately loose fiscal stance for later years. As such other initiatives are also required.

ii. **The Department should develop its toolkit for assessing the cyclical position of the economy beyond the CAM.** The CAM is the method that is used to set a "sustainable" pace of growth for expenditure in the fiscal rules (net of any discretionary revenue measures) and to identify the underlying balance, abstracting from temporary or cyclical factors (the structural balance). However, there are known issues with procyclicality underpinning the

of the available fiscal space: "aggregate expenditure forecasts now include the planned level of Government expenditure out to 2021…based on the current economic forecasts and the existing estimates of available fiscal space. As we move forward, the economic forecasts will vary and estimates of fiscal space will change as the relevant economic indicators used in the calculation change. As this happens, the fiscal forecasts for both revenue and expenditure will change too."

CAM (Boxes B and E). Given that future improvements in the public finances might primarily reflect cyclical factors, there is a risk that any cyclical upswing could feed through to higher estimates of potential growth in a procyclical fashion (i.e., with estimates unduly chasing revisions to outturns/forecasts as the cycle evolves). To help ensure that temporary or cyclical revenues are recognised as such, the Department should develop its toolkit for assessing the cyclical position of the economy in keeping with its recent commitments.[23]

iii. **The proposed design of the Rainy Day Fund should be strengthened.** Pressures to increase government spending and cut taxes in an unsustainable manner might be expected in future years. Current budgetary plans look set to deal with a lot of known pressures; however, the procyclicality of the fiscal rules could result in an excessively loose fiscal stance being permitted while compliance with the fiscal rules is observed. Future pressure to loosen the fiscal stance further relative to current plans could be mitigated by allocating cyclical or transient revenues to other purposes and the Rainy Day Fund represents a useful tool for achieving this.

As Box A argues, the proposed design of the Rainy Day Fund can be strengthened in a number of ways. If the fund is to function meaningfully, annual allocations should give some consideration to cyclical conditions, while upper limits on allocations should not be imposed. Furthermore, the Department should engage with the European Commission further on developing a sensible basis for how the Rainy Day Fund can operate in conjunction with fiscal rules. The proposal suggests availing of one-offs, the unusual events clause and the structural reforms/investment clauses. These triggers, applicable only to very specific circumstances, may not prove effective in allowing the withdrawal of resources from the Rainy Day Fund as and when these resources are needed.

iv. **Adhering to a target for public investment spending over the medium term would provide a sensible approach for guiding fiscal policy.** As Box G shows, public investment spending has been an area of government spending that has exhibited a markedly procyclical pattern in recent decades and it is set to ramp up again quite rapidly in coming years. Adhering to a targeted ratio of expenditure to GNI* (as suggested in the *Review of the Capital Plan 2016–2021*) would help to prevent forced cuts to public investment in future downturns and excessive expansions in good times.

[23] IFAC Endorsement Letter April 2017: http://www.fiscalcouncil.ie/wp-content/uploads/2017/04/IFAC-Endorsement-Letter-04-04-2017-accessible.pdf

Box A: Rainy Day Fund

This box discusses the Government's planned Rainy Day Fund. The Council assess that the Rainy Day Fund could be a potentially very useful countercyclical tool to ensure more sustainable growth and prudent management of the public finances. It welcomes the publication of a Consultation Paper on how the Fund might operate (Department of Finance, 2017d). Yet key issues have still not been addressed adequately, and the Fund envisaged in the Consultation Paper appears to be have been scaled back from initial plans. The Council identifies three key issues still to be addressed: (i) countercyclicality; (ii) interaction with the fiscal rules; and (iii) governance procedures.[24]

(i) Countercyclicality

The fund envisaged by the Department of Finance does not appear to function as a countercyclical tool for fiscal policy (i.e., it does not act in a manner that would lessen past tendencies to ramp up spending and cut taxes during a cyclical upturn). The paper appears to indicate that part of the reason for this is that the *SGP* is "for the most part, designed to smooth 'normal' cyclical conditions". However, as Boxes B and E emphasise, there are good reasons to suggest that the *SGP* will fail to identify the cycle accurately and an additional tool is needed to manage the public finances in a manner that would help to avoid any procyclical bias evident in the fiscal rules.

Rather than responding to cyclical developments, it would appear that the fund, as proposed, would be set with pre-determined allocation limits that are applicable for a pre-determined period of time. Allocations are set at a maximum of €500 million annually over the three-year period 2019–2021 and there is no clear basis for how allocations are expected to vary within this limit. The Consultation Paper notes that the fund will be used to address "only specific events or shocks rather than the impact of the cycle". This runs contrary to the original purpose of the fund and it would contribute little to improving fiscal policy when the State already holds large reserves of liquid assets.

The prospect of a cap on total cumulative allocations to the fund is also outlined. This, again, would appear to be inconsistent with the idea of a countercyclical tool. If, for example, an upturn is strong and persists over a prolonged period of time, then allocations to the fund should be allowed to expand accordingly without constraints on its capacity to dampen the boom–bust cycle. Correspondingly, if a cyclical downturn were to ensue, then having pre-committed to making allocations to the fund would not be wise, nor would it be consistent with the principle of counteracting the cycle.

Plans for the fund have already exhibited a procyclical pattern whereby proposed allocations have been reduced as economic prospects have improved. Allocations to the Rainy Day Fund have been twice scaled back from original plans. As part of *Summer Economic Statement 2016* and *Budget 2017*, it was announced that €1 billion annual allocations would be made in 2019, 2020 and 2021. Yet the *Summer Economic Statement 2017* noted that these allocations would be halved to €500 million. Following this, *Budget 2018* noted that the €500 million allocations would instead be a maximum limit rather than a target for annual allocations. Over this time, real GDP growth forecasts produced by the Department of Finance for 2017 and 2018 have been revised upwards by 0.8 and 0.1 percentage points, respectively, such that – all else equal – the cyclical position of the economy would be more positive than assessed when the Rainy Day Fund was first proposed. Moreover, risks to the macroeconomic outlook are now assessed by the Department as broadly balanced, whereas at the time of *Budget 2017* they were viewed as firmly tilted to the downside. Against the backdrop of these reduced allocations, a decision was taken in *Budget 2018* to move €1.5 billion of existing liquid assets held by the Ireland Strategic Investment Fund to the Rainy Day Fund.

The Council is of the view that annual allocations to be made to the fund should give some consideration to cyclical conditions and that upper limits on allocations should not be imposed if it

[24] Many of these issues were highlighted by the Council prior to budget day in its *Pre-Budget 2018 Statement* (IFAC, 2017c).

is to function meaningfully. An example would be to link contributions to measures that track the underlying performance of the economy such as labour market data (Box B of IFAC, 2016b); underlying domestic demand; and/or wage inflation. Distortions are common in Irish economic data, and any single measure is unlikely to prove consistent and sensible basis for calibrating annual allocations to a countercyclical fund. A role for external monitoring could be considered in terms of the timing of allocations. One option would be to include a provision that suggests that allocations should be made to the fund whenever unemployment is below the Department's estimate of what is consistent with full employment (e.g., a non-CAM-based NAWRU estimate) with an explanation being required when this is not pursued.

Restricting the countercyclical nature of the fund runs the risk that transient revenues could – as in previous crises – be used to fund long-lasting expenditure increases. This is a possibility that is exacerbated by the procyclicality of the estimates of Irish potential output underpinning the fiscal rules (Box B) – an issue which a well-designed Rainy Day Fund can serve to mitigate.

(ii) Interaction with the Fiscal Rules

A key aspect of the Rainy Day Fund that still needs to be addressed is how it might interact with the fiscal rules. The Consultation Paper notes that withdrawals from the fund could be complicated by the fact that increasing spending funded by drawing on resources built up in the fund could ultimately breach the domestic and EU fiscal rules. For instance, the spending rule (the Expenditure Benchmark) sets a limit on real spending growth net of interest costs and new tax measures, while the domestic government expenditure ceilings are designed to set ceilings for aggregate departmental spending. Using the fund to increase spending over and above what is already permitted under the rules or ceilings could lead to breaches of the fiscal rules – especially if budgetary plans are set on the basis of assumed minimum compliance.

More options should be considered for how withdrawals from the Rainy Day Fund can operate without running the risk of breaching the fiscal rules. The Consultation Paper notes that the unusual event clause, the one-off classification, and the structural reform/investment clauses are avenues that could be used to enable withdrawals while still complying with the rules. These flexibilities are not designed for such mechanisms; they may not permit the envisaged scope for temporary departures from the rules; and the procedures governing when the clauses may be triggered may not be sufficiently well-defined to suit the purposes intended. A better approach would be to engage with the European Commission on means through which the rules could be adapted to ensure that Member States employing tools such as the Rainy Day Fund are not treated in a punitive manner.

(iii) Governance Procedures

Specific procedures governing how the Rainy Day Fund is to operate should be examined in more detail. As noted in the Consultation Paper, there is a risk that if resources are not properly safeguarded, these could be used to fund ongoing expenditure overruns. The safeguards which will be put in place to prevent such actions need to be robust and key to this process will be defining the reasons for which resources may be drawn from the fund.

In addition, greater consideration should be given to whether other structural issues (such as addressing the accrued liability of public service occupational pensions) will also be addressed by this fund or by other funds.

Box B: "Strong and Stable" – The Procyclicality of the CAM

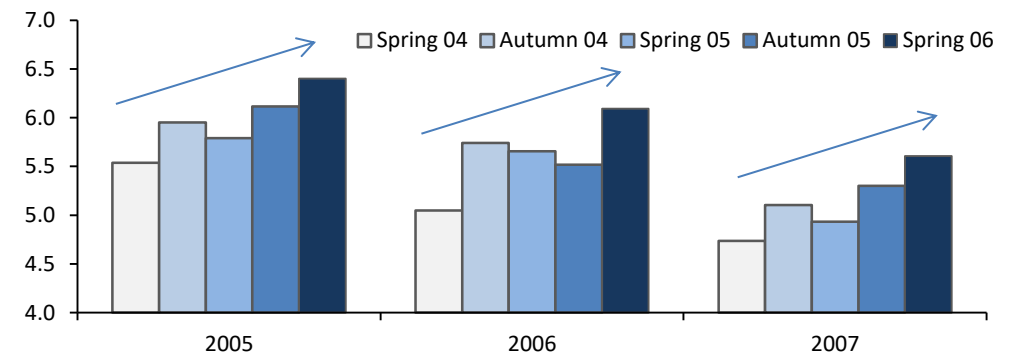
This box highlights how the Commonly Agreed Methodology (CAM) used to estimate potential output for Ireland is prone to producing estimates that are very much procyclical (i.e., where estimates increase as cyclical recoveries ensue, and decline as downturns take hold).

This procyclicality is partly an issue caused by the methodology as applied to Ireland, but can also be a feature evident in many approaches to estimating potential output.[25] It is partly exacerbated by the regional nature of the Irish economy. In particular, sizeable labour market flows into and out of the country through migration can result in periods of self-reinforcing growth.[26]

One way to demonstrate the procyclical nature of CAM estimates for Ireland is through the nature of revisions to estimates. Figure B1 shows the estimates of potential output for each of the years 2005, 2006, and 2007 as estimated in real-time over a number of forecast exercises (these exercises run from *Spring 2004* to *Spring 2006*). The estimates evolve in a way that moves procyclically (i.e., such that revisions to potential output estimates chase upward revisions to actual growth rates as the cycle improves). This is in part a consequence of (i) newly available "first" estimates of real GDP; (ii) new forecasts of real GDP for years ahead; and (iii) revisions to historical real GDP estimates.

Figure B1: Upward Revisions to Potential Output Growth Rate Estimates

Percentage Change, Year-on-Year



Sources: European Commission (CIRCA); and internal IFAC calculations.

Table B1 shows that this procyclicality is driven by expanding contributions from the net capital stock and from labour inputs. As the property/credit bubble took hold in the mid-2000s, rising construction activity contributed to greater levels of capital accumulation, while falling unemployment rates and rising participation rates led to greater contributions from the labour market. Both features led to rising estimates of potential output growth as the estimates failed to sufficiently account for what would ultimately prove to be transient developments.

Looking more closely at the determinants of labour inputs to potential output over the same expansionary period (2005-2007), we see that all of these inputs evolve in a way that contributes to higher estimates of potential output growth rates (Table B2). The estimated natural rate of unemployment in 2005 (the "NAWRU") falls by half a percentage point between the *Spring 2004* and *Spring 2006* vintages. As such, the view of "full employment" as implied by the CAM becomes

[25] The European Commission also acknowledges issues with procyclicality in the same Production Function (PF) approach. Mc Morrow *et al* (2015), for instance, note that "revisions to the PF's output gap estimates in the pre-crisis period were roughly five times greater than those of the post-crisis, 2009–2014, period…a particularly humbling statistic given that one of the EU's primary motivations in 2002 for moving away from the HP filter to the PF approach was the expectation of reduced levels of procyclicality (especially in the upswing stage of cycles)". For useful explorations of the procyclicality issue in a wider context, see Borio *et al* (2014); Heimberger and Kapeller (2017); and Kuusi (2017).

[26] There is a tendency for Ireland to demonstrate characteristics more like those of a regional economy than a typical national economy. This is in part a reflection of its small and open nature. Behaviours such as periods of self-reinforcing growth may be evidenced, for example, when inward migration supports scale economies and incomes, thus attracting further inward flows.

one that is consistent with much lower unemployment rates than initially implied by the method. In addition, the expected trend participation rate for the labour force in 2005 rises by 2.7 percentage points over the successive forecast rounds, while the working age population is seen to grow at a pace that is 1.2 percentage points faster than first estimated. While the latter reflects newer historical information and population projections, the trend participation rates and NAWRU estimates are unobservable variables where procyclicality is in part a feature of the estimation process.

Table B1: Revisions to Contributions to Potential Output Growth Rates

Changes in contributions, percentage points of potential output growth rates (*Spring 2006* minus *Spring 2004* forecast exercise)

	Labour	Capital Stock	TFP
2005	0.2	1.0	-0.4
2006	0.4	1.1	-0.5
2007	0.3	1.1	-0.5

Sources: European Commission (CIRCA); and internal IFAC calculations.
Notes: TFP refers to the estimated contribution from growth in trend Total Factor Productivity.

Table B2: Revisions to Labour Input Determinants

Changes in percentage points (*Spring 2006* minus *Spring 2004* forecast exercise)

	NAWRU (% Labour Force)	Working Age Population (% change year-on-year)	Trend Participation Rates (% working age population)
2005	-0.5	1.2	2.7
2006	-0.2	1.3	3.0
2007	0.0	1.0	3.2

Sources: European Commission (CIRCA); and internal IFAC calculations.
Notes: Changes show revisions for each year's estimates between the *Spring 2004* vintage and the *Spring 2006* forecast exercise.

The problem of procyclicality suggests that potential output estimates under the CAM could evolve in future years in a way that is unduly determined by actual real GDP outturns. Upside risks to many of the determinants of potential output estimates are foreseeable in the near future. One plausible scenario for the coming years might see a sharper-than-expected construction recovery take hold as pent-up demand in housing supply is addressed. Should this scenario materialise, it could well see even higher estimates of potential output growth as measured under the CAM compared to the central scenario in *Budget 2018*. This could arise if increased labour force participation, higher inward migration flows and stronger capital accumulation arise in response to stronger residential construction activity.

How potential output growth rates evolve over time will be important for the reference rates that determine "sustainable" growth rates for government spending under the spending rule (the Expenditure Benchmark). The Department's forecasts envisage Ireland's medium-term annual growth rate as tending towards 2½ per cent by 2021 – an estimate that is largely influenced by the modelled impact of a hard Brexit on long-run growth rates. This compares to the reference rate implied by a ten-year average of potential output estimates produced under the CAM of 3.8 per cent for 2021. An issue arises if a gap of this size were to persist and if all of the space allowed under the spending rule were to be availed of. Such a policy could result in a divergence emerging over time between "sustainable" spending levels (as informed by CAM-based estimates) and "actually sustainable" spending levels (as more appropriately measured).

2. Endorsement and Assessment of the Macroeconomic Forecasts

Key Messages

- The Council endorsed the *Budget 2018* macroeconomic forecasts for 2017 and 2018. Taking into account the uncertainties and judgements involved, it was satisfied that these forecasts were within an endorsable range. The forecasts imply continued strong growth this year, with growth moderating in later years.
- While there is much uncertainty over the exact cyclical position of the Irish economy, it would appear that any remaining output gap is relatively small. Given that the economy is likely to be close to its potential level of output, there is a possibility that overheating would occur in the years ahead if growth was to continue at elevated levels. While a rapid response from the construction sector to persistent supply shortfalls would be welcome, this could also contribute to overheating if other sectors of the economy also continue to grow strongly.
- By contrast, the profile of the output gap produced using the Commonly Agreed Methodology (CAM) in *Budget 2018* is implausible, showing a strong positive output gap for 2017, which becomes negative in 2019-2021. This would imply that the economy is to turn from a position of overheating in 2017 and 2018 to one where there is slack in the economy. This runs counter to *Budget 2018* forecasts that the labour market will continue to tighten over 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 an expansion of the Department of Finance's current toolkit to include measures of the output gap that reflect their own views of the supply side.
- While near-term macroeconomic prospects look favourable, there are a number of downside risks visible over the medium-term horizon. Although a hard Brexit is the central scenario envisaged in *Budget 2018*, the impact of Brexit is highly uncertain as is the timing of the economic effects. These effects could be more negative than assumed, particularly if the impact is front-loaded, which cannot be assessed from the existing estimates. Additional risks include potential future changes to tax arrangements among Ireland's trading partners. There are also important domestic risks. The housing market and the highly concentrated production base are the most pertinent. *Budget 2018* notes that risks to the short-term outlook are "broadly balanced", an assessment the Council shares.

2.1 Introduction

The Council's ninth endorsement exercise covered the macroeconomic projections in *Budget 2018*. The endorsement exercise covers the forecasts for 2017 and 2018. The timeline for the endorsement process is detailed in Appendix A.

To support the endorsement and assessment functions, the Council has continued to develop and update its own suite of models used for both short-term and medium-term forecasting. These are important tools for assessing the cyclical position of the economy, as well as for understanding the economy's medium-term supply-side potential. Box D documents a new approach to forecasting goods exports, utilising monthly trade data rather than National Accounts aggregates. Additional work on producing alternative estimates of the supply side is also ongoing (Chapter 1).

Section 2.2 outlines the endorsement process as it applied to the *Budget 2018* forecasts. Section 2.3 discusses the *Budget 2018* forecasts and puts these in context relative to the forecasts of other agencies. Section 2.4 provides an assessment of the risks surrounding the economic outlook and potential economic imbalances. Three boxes are included: the first (Box C) examines different estimates of the savings rate in Ireland, the second (Box D) describes a new approach to modelling goods exports; and the third (Box E) considers problems with the Commonly Agreed Methodology (CAM) as applied to Ireland.

2.2 Endorsement of the *Budget 2018* Projections

This section details the ninth endorsement exercise undertaken by the Council, covering the macroeconomic forecasts in *Budget 2018*, outlining the Council's considerations around the time of the endorsement, and the process itself. Data available at that time may differ from that available for the purposes of this assessment.

The Council endorsed the *Budget 2018* macroeconomic projections for 2017 and 2018, 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.

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 the assessment by the Council. In relation to medium-term projections, both the Council and the Department have noted that the Commonly Agreed Methodology (CAM) is unsuitable for Ireland. While judging the methodology itself to be unsuitable (see Box E), the correct application of the CAM was verified by the Council.

Second, in terms of the pattern of errors in Department of Finance forecasts, the Council has found no systematic pattern in recent forecast errors. The Council will continue to monitor the composition and accuracy of the forecasts. While there have been some large forecast errors in recent years, these have not been systematic and reflect the highly volatile nature of the Irish economy (Conroy, 2015).

Third, comparisons with the full set of Benchmark projections (Appendix B) showed some deviation from the Department's forecasts in 2017 and 2018. The Department's estimates for growth were assessed to be within an endorsable range, despite being lower than the IFAC Benchmark projections for both 2017 and 2018. In terms of composition, the Council's Benchmark projections suggest a larger contribution to growth from net exports in 2017 and 2018 than do the forecasts of the Department of Finance, leading to a higher forecast of overall growth.

The forecasts endorsed by the Council and those published in *Budget 2018* differ slightly because the forecast for the personal consumption deflator is slightly stronger next year, driven by increases in excise duties announced in the Budget. On the face of it, this means that the *Budget 2018* forecasts imply no substantive macroeconomic impact from the policy measures undertaken on budget day. A feature of *Budget 2018* was that increased spending was largely funded by revenue-raising measures. There may be reasons to believe that some of the specific revenue-raising measures in the Budget may not significantly reduce domestic demand, and hence the overall budgetary package may have a more expansionary macroeconomic impact than would otherwise be the case. For example, changes to deductions for capital allowances for intangible assets is expected to yield €150m in 2018, but this revenue-raising measure seems unlikely to significantly alter domestic demand.

2.3 An Assessment of the Macroeconomic Forecasts in *Budget 2018*

2.3.1 Macroeconomic Context

Outturn data indicate that the impressive growth performance of the Irish economy continued in 2016, with growth estimated at 5.1 per cent for GDP and 9.6 per cent for GNP.[27] While there is still significant uncertainty over what measures of activity should be used, it is clear that there has been a rapid recovery in the Irish economy over the past few years. Looking at domestic Gross Value Added (GVA), for example, which should provide a better measure of what is happening in the domestic economy, it can be seen that there has been real growth averaging over 5 per cent from 2013 to 2016.[28] Looking beyond National Accounts metrics, employment is a reliable indicator of the progress of the economy, and there has been annual growth averaging 2.6 per cent for the past

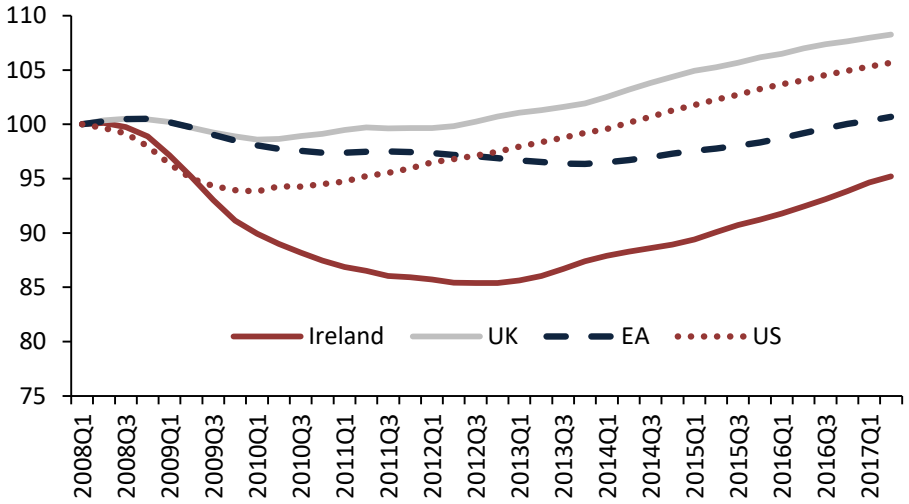
[27] Preliminary estimates suggest growth of 5.4 per cent (GDP) and 2.6 per cent (GNP) in the first half of 2017 compared to the same period in 2016.

[28] This excludes the sectors of the economy dominated by multinational enterprises.

four years. Figure 2.1 shows employment in Ireland, the US, the UK and the Euro Area since 2008. Despite impressive employment growth in the past four years, employment in Ireland is still less than its pre-crisis peak unlike the UK, the US and the Euro Area.[29]

Figure 2.1: Employment Developments, International Comparison

Index (2008Q1 = 100)



Source: Eurostat; CSO; US Bureau of Labor Statistics; and Internal IFAC calculations.
Note: A four-quarter moving average is taken for each of the series.

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 estimates of external demand have been revised down over the past year.[30] Changing forecasts for the UK have been mainly responsible for the revisions shown. The strongest projections came prior to the UK referendum on EU membership (March 2016). The more recent sets of projections show weaker external demand growth in the medium term. Projections for imports into the UK have been revised down more significantly, which implies weaker external demand for Irish exports.

Looking at the high-frequency indicators available so far this year, a positive picture of the Irish economy emerges. Retail sales (excluding motor trades) have been positive (+7.7 per cent year-on-year in September). Tax returns also give an indication of activity and demand. Tax revenue for the first ten months is 6.2 per cent higher than for the same period last year, with all the major tax heads showing growth.[31]

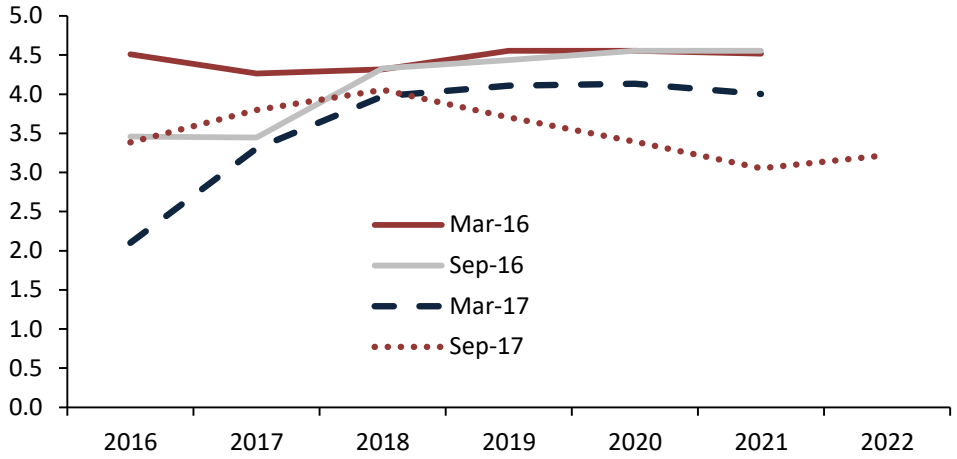
[29] Employment excluding construction has risen just above its pre-crisis peak (2008Q2).

[30] These are the estimates compiled by IFAC which are used for the Benchmark projections.

[31] If these estimates were to be adjusted for recent tax policy changes, the growth in tax revenues would be expected to be higher.

Figure 2.2: Vintages of External Demand Growth Projections

% change (year-on-year)



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

2.3.2 *Budget 2018* Short-Term Forecasts, 2017-2018

This section describes the main aspects of the expenditure-side forecasts in *Budget 2018* for 2017 and 2018. Some of the key expenditure components are discussed below, including consumption, investment, government consumption and exports.

The *Budget 2018* forecasts project that the strong **personal consumption** growth seen in recent years is expected to moderate in 2017 and 2018 (see Table 2.1 for a summary of *Budget 2018* forecasts). The *Budget 2018* forecasts are based on an anticipated upward revision to services consumption for the first half of this year. This appears to be a plausible assumption, as it would bring services consumption into closer alignment with recent employment and income data. In addition, a pattern of upward revisions to services consumption has been evident in recent years. The high-frequency data on retail sales are broadly supportive of a positive outlook for consumption, particularly when the weaker motor trade data are excluded.[32] Given new data, it is no longer clear that there is still a large upside risk to consumer spending growth from reduced household savings ratios as had been previously thought (Box C). The approach taken in *Budget 2018* forecasts is for nominal consumption and nominal income to grow at the same rate, hence keeping the savings rate constant over time.

[32] The weak new car sales is thought to be driven by substitution to second-hand imported cars, particularly after the appreciation of the euro against sterling.

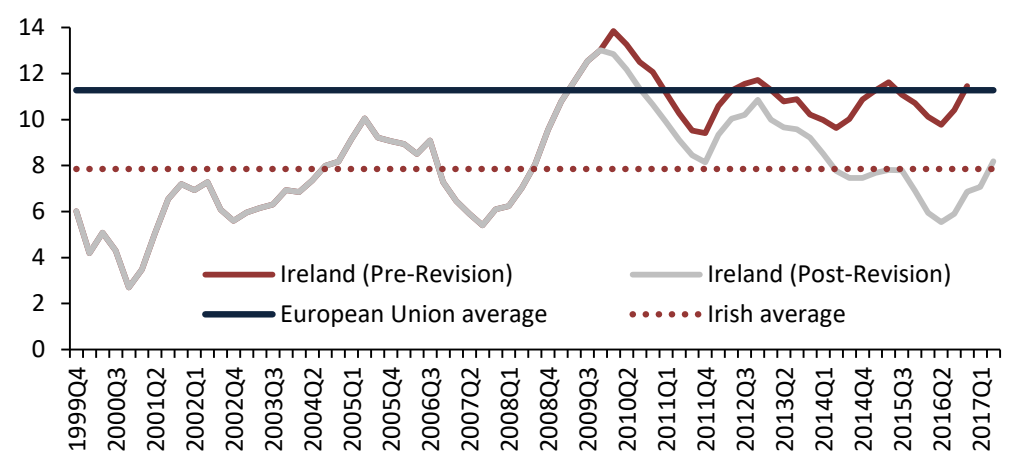
Box C: Challenges in assessing the equilibrium household savings rate in Ireland

This box shows how different data sources give a strikingly different picture of the household savings rate in Ireland and, hence, have very different implications for future consumer-spending developments.

Savings rates of the household sector are a key indicator for examination when forecasting consumption, particularly in the medium term. If the savings rate is low (relative to an estimated/assumed equilibrium), then one might expect consumption to grow more slowly than income, hence leading to an increased savings rate. By contrast, if the savings rate is very high, this would suggest that there is scope for consumption growth to outstrip income growth for a period.[33] In addition, significant departures in the savings rate from expected norms may point towards temporary imbalances that could be expected to correct over time.

Figure C1: Savings Rate

% of personal disposable income, four-quarter moving average



Sources: CSO, Eurostat.

Notes: The pre-revision data are from the 2016Q4 release of the Institutional Sector Accounts (12/4/17). The post-revision data uses the latest release (2017Q2, released on 13/10/17). Irish and European Union averages are calculated using data from 1999Q1 to 2007Q4 and 2013Q1 to 2016Q4.

Different data sources can be used to look at the savings behaviour of Irish households. The CSO's Non-Financial Institutional Sector Accounts (ISA) provide both quarterly and annual data on the income, consumption and savings of the household sector.[34] Estimates are prone to change as new data becomes available. For example the series for, gross disposable income of households was revised down significantly for the period 2014 – 2016.[35] This in turn reduced savings (as consumption was not significantly revised) and hence reduces the savings rate. From Figure C1 above, it is evident that without the recent revision to the CSO data, Ireland would be quite close to the EU average savings rate and above the Irish historical average (both averages

[33] This would be consistent with the permanent income hypothesis. If consumers believe income will grow strongly in future they will increase consumption now (in anticipation of these increases), hence the savings rate is low now, but increases in future as income grows at a faster pace than consumption.

[34] This refers to sectors S.14 + S.15 in the ISA accounts. This includes Households and Non-Profit Institutions Serving Households (NPISH). The NPISH sector is quite small and hence should not have a material impact. A fully integrated set of annual financial accounts are produced by CSO. These financial accounts are balanced with the non-financial ones to produce a more comprehensive picture of the macroeconomy.

[35] The 2017Q1 release (2/8/17) first reflected the revised disposable income figures. Most of the decrease in gross disposable income is attributable to a downward revision of value added by the household sector of almost €4bn.

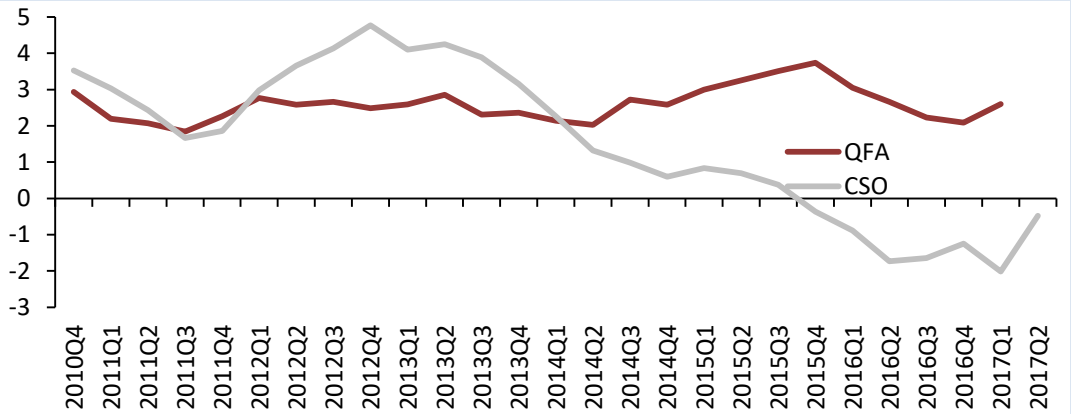
are calculated over the sample 1999Q1 to 2016Q4, excluding the period most affected by the financial crisis: 2008 to 2012). The revised CSO data paints a much different picture, with the savings rate trending downwards for much of the last four years and now lying around 8 per cent, slightly above Irish historical norms but below the EU historical average.

Irish and EU historical averages here are shown to give some sense of an equilibrium savings rate.[36] However, there may be good reason to believe that the Irish equilibrium savings rate has changed recently. In particular, the introduction of macroprudential regulations by the Central Bank of Ireland may have led to an upward structural shift in savings rates of households to reflect changes in deposit requirements for home purchases.

Given the differing implications of the revised and unrevised savings rate estimates, it is worth examining which pattern fits with other data sources available. The Quarterly Financial Accounts (QFA) are produced by the Central Bank of Ireland and provide information on the assets and liabilities of the household sector. Using this dataset one can calculate an estimate of net lending/borrowing of the household sector. A somewhat comparable net lending/borrowing series is also available from the non-financial sector accounts produced by CSO. Figure C2 shows the two series. From the QFA series, it would appear that the household sector is a net lender (adding to net assets) and has been a net saver of €2–€3 billion in annualised terms since 2011. By contrast, looking at the revised ISA series, this would suggest that the household sector has become a net borrower in recent times. Indeed the trend in household investment, mainly in property has increased in the period 2014–2016. Such an increase would normally be associated with an increase in borrowing by the household sector.[37]

Figure C2: Net Lending (+)/Borrowing (-) of the Household Sector

€ billions, four-quarter sum



Sources: CSO, Central Bank of Ireland and Internal IFAC calculations.

Two contrasting pictures are presented. The QFA data would appear to be more in line with the unrevised ISA data and the higher savings rate shown in Figure C1. Using the QFA data from the Central Bank of Ireland, the household sector would appear to be a net lender. Furthermore, these data would suggest that savings rates are closer to European averages and well above Irish historical norms. By contrast, the integrated financial and non-financial data produced by the CSO would suggest that the household sector has been a net borrower since 2015Q4, with a savings rate that has been broadly trending downwards and is below European averages.

If the savings rate is indeed low and the household sector is a net borrower, then any further fall in the savings rate could be interpreted as a warning indicator of potential imbalances. A lower savings rate may also imply that weaker consumption growth could be expected in future

[36] These averages are merely shown as a rough guide. Demographics, pension contributions/enrolment, rates of home ownership and interest rates all affect savings rates and vary substantially both over time and across countries.

[37] More generally, the annual financial and non-financial sector accounts produced by the CSO draw on all of the current available data to produce a coherent and consistent set of accounts for Ireland.

years, if the savings rate moves back towards historical norms. If the QFA data are correct, however, stronger consumption growth might be expected in future years, should the savings rate revert to historical norms.

Recent data on headline **investment** growth have been subject to large movements related to intangible assets. These investments are mostly imported and hence have little impact on overall GDP. With this in mind, underlying investment, which excludes investment in aircraft and intangible assets, is a more informative indicator. Underlying investment grew strongly last year, with underlying machinery and equipment, and building and construction both contributing significantly. *Budget 2018* 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. Investment in underlying machinery and equipment has been quite volatile in recent times, with a number of large projects thought to be responsible.

Table 2.1: *Budget 2018* Macroeconomic Forecasts (to 2018)
Percentage Change in Volumes Unless Otherwise Stated

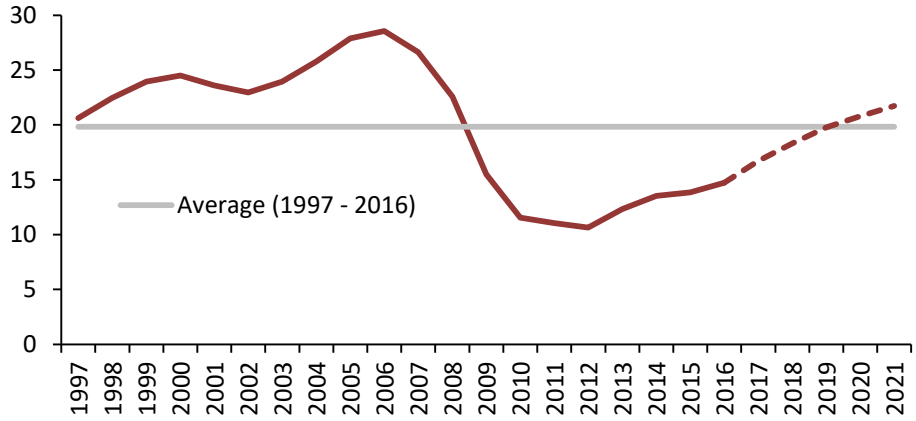
	2016*	2017**	2018**
GDP	5.1	4.3	3.5
GDP Deflator	0.0	0.5	0.9
Nominal GDP	5.2	4.9	4.4
GNP	9.6	0.0	3.3
Nominal GNI*	9.4	0.6	4.5
Personal Consumption	3.3	2.3	2.3
Investment	61.2	-3.7	6.1
Underlying Investment	13.6	9.6	10.0
Government Expenditure on Goods and Services	5.3	2.0	2.0
Exports	4.6	3.5	4.8
Imports	16.4	-1.0	5.5
Stock Changes (p.p. Contribution)	0.1	-0.6	0.1
Current Account (% of GDP)	3.3	3.0	2.0
Trade Balance (% of GDP)	22.0	25.3	24.2
Employment	2.9	2.8	2.3
Unemployment Rate (%)	7.9	6.3	5.7
Inflation (HICP, %)	-0.2	0.2	0.8
Nominal GDP (€ billions)	275.6	289.1	301.8

Sources: CSO and *Budget 2018.*
Notes: * Denotes latest outturns from the CSO. ** Denotes *Budget 2018* forecasts.

In previous *Fiscal Assessment Reports* (IFAC 2016a), 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 has become 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 GNI*. 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, but below the ratio in all of the years 1998–2008.

Figure 2.3: Underlying Investment
Percentage of GNI*



Sources: CSO, *Budget 2018;* and Internal IFAC calculations.
Note: Underlying investment excludes investment in aircraft and intangibles. GNI* is assumed to grow at the same rate as GNP, the dashed line represents *Budget 2018* forecasts.

Government consumption grew faster than *Budget 2017* forecasts for 2016, with growth of 5.3 per cent. *Budget 2018* forecasts slower growth in 2017 and 2018 (2.0 per cent) and was not revised in light of increased expenditure announced on budget day.

Forecasting **exports** has proven difficult in recent times. Goods exports recorded in the National Accounts have diverged substantially from those recorded in the external trade data in recent years, largely due to developments in contract manufacturing (see Box D). For the first half of 2017, goods exports in the National Accounts have declined, while those recorded in the monthly trade data have increased by 7.4 per cent relative to the same period in 2016.

On the services side, growth has been very strong for the past number of years (averaging over 10 per cent per annum since 2010) and has continued in the first half of this year. *Budget 2018* forecasts strong services growth for this year, slowing significantly next year (12 per cent in 2017 followed by 5.5 per cent in 2018). Given the scale of service exports, this has a significant impact on GDP growth forecasts. By way of illustration, if the 2018 service export growth was 10 per cent rather than 5.5 per cent, then GDP growth would be 1.5 percentage points higher.[38] While a moderation in service exports growth (as forecast in *Budget 2018*) would bring it into closer alignment with measures of external demand, it has been much stronger than external demand for some time now, and this may well continue. The diverging recent performance of goods and

[38] This scenario assumes that service imports grow by an additional 2.25 percentage points in response to the additional 4.5 percentage points of growth in service exports.

services exports shows the value in forecasting these series separately rather than simply forecasting aggregate exports.

Box D: Modelling Goods Exports

This box sets out a new approach to forecasting goods exports using customs data to avoid recent problems related to contract manufacturing. There are two estimates of goods exports produced by the CSO. The monthly trade (or "customs") data records the value and volume of goods imported into and exported out of Ireland.[39] The Quarterly National Accounts (QNA) and Balance of Payments (BoP) also record the exports and imports of goods in to and out of Ireland. The levels recorded in the QNA/BoP differ from those recorded in the monthly trade data as adjustments are applied to the trade data to bring the data to national accounting standards.[40] The CSO (2015) has previously noted that the reasons for adjustments to the monthly trade series usually relate to the recognition of changes in economic ownership. As well as occurring due to contract manufacturing, such adjustments may take place due to the recording of merchanting activities and due to conceptual adjustments relating to the valuation of goods, such as in cases where certain exports may be undervalued.

Due to these adjustments, goods exports in the QNA have diverged substantially from those seen in the customs data, the latter giving a better sense of the goods being produced in Ireland for export. Prior to 2015, contract manufacturing activities were of a much smaller scale and had been largely GNP-neutral. In some instances, contract manufacturing would be GDP neutral due to imports of royalties (payment for the use of intellectual property). Even when these imports did not occur, outward profit flows (from foreign-owned multinational enterprises) would mean that GNP would not be impacted by contract manufacturing. In 2015, contract manufacturing made a large positive contribution to GDP (and GNP) growth, as the huge increase in these activities was not fully offset by increased services imports (or profit outflows). By contrast, contract manufacturing has acted as a drag on goods exports recorded in the National Accounts in 2016 and in the first half of 2017.

The diverging performance of goods exports recorded in the trade data and the National Accounts poses a dilemma for forecasters. If one is trying to forecast underlying activity in the Irish economy, then one might want to focus on drivers of customs exports, rather than the National Accounts measure which may be distorted by activities of multinational enterprises that have relatively less impact on incomes, employment and taxes. In Conroy and Casey (2017) the National Accounts measure of goods exports are modelled, with a dummy variable used to account for the level shift in goods exports that occurred in 2015. However, given that the divergence between the national accounts and the customs data has continued since that level shift, the focus may need to shift to the customs data.

With this in mind, an error correction model is estimated for customs goods exports (volumes) using standard predictors such as external demand and competitiveness. The dependent variable in the short-run equation is the log-difference in goods exports (i.e. $\Delta Ln(XG_t) = Ln(XG_t) - Ln(XG_{t-4})$). Column (1) in Table D1 shows the long-run relationship between goods exports and external demand and competitiveness. Column (2)

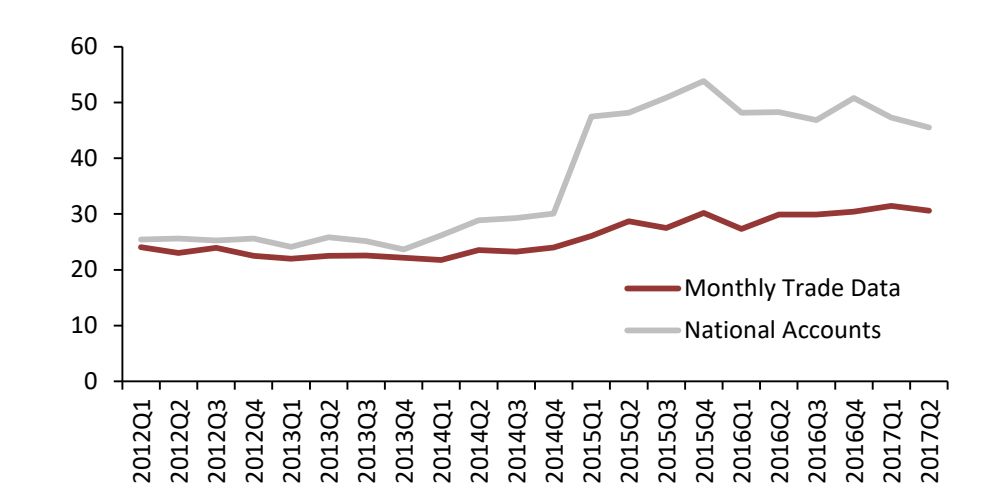
[39] Details on the methodology employed by the CSO can be found here:
http://www.cso.ie/en/media/csoie/methods/externaltrade/explanatorynotes2015.pdf

[40] See CSO information note on contract manufacturing
http://www.cso.ie/en/media/csoie/methods/balanceofinternationalpayments/ContractManufacturingInformationNotice.pdf

shows estimates of the short-run relationship, with the short-run impacts of the two explanatory variables, as well as the error correction coefficient.

Figure D1: Goods Exports

€ billion, current prices



Sources: CSO.

As one would expect, external demand for Irish goods exports is positively associated with customs goods exports both in the long-run and short-run. Competitiveness is captured here by the Real Effective Exchange Rate (REER_t). The error correction coefficient is negative as one would expect, and implies a fast pace of correction when customs goods exports deviate from the long-run equilibrium relationship estimated in column (1).

Table D1: Long-run (1) and short-run (2) equations.

Percentage change (year-on-year)

	(1)	(2)
	$Ln(XG_t)$	$\Delta Ln(XG_t)$
Constant	1.27*	0.03**
$\mathrm{Ln(Demand_t)}$	0.57**	
$\mathrm{Ln(REER_t)}$	-0.15*	
$\mathrm{\Delta Ln(Demand_t)}$		0.16
$\mathrm{\Delta Ln(REER_t)}$		-0.14
ECM		-0.49**
R^2	0.54	0.39
Sample	1998Q1 – 2017Q2 (78)	1999Q1 – 2017Q2 (74)

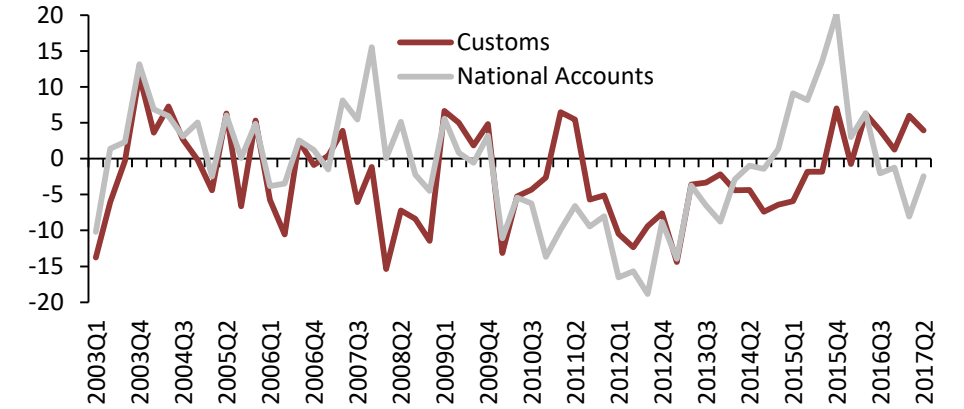
Statistical significance: ** 5 per cent; * 10 per cent

While the quarterly movements of customs goods exports may be quite large and difficult to model, the new model provides a better fit than does the corresponding model for goods exports as measured in the National Accounts. The mean absolute error using the new model is 5.7 percentage points, while the mean absolute error using the National Accounts-based model is 6.4 percentage points.[41]

[41] Both models are assessed from 2003Q1 on, as the "missing trader" fraud artificially increased goods exports in the early 2000s. Exports of electrical machinery, appliances etc. (SITC 77) fell by more than half in 2003 after the fraudulent activities were detected.

Figure D2: Customs goods exports and National Accounts models

Residuals, percentage point error in forecasting year-on-year growth

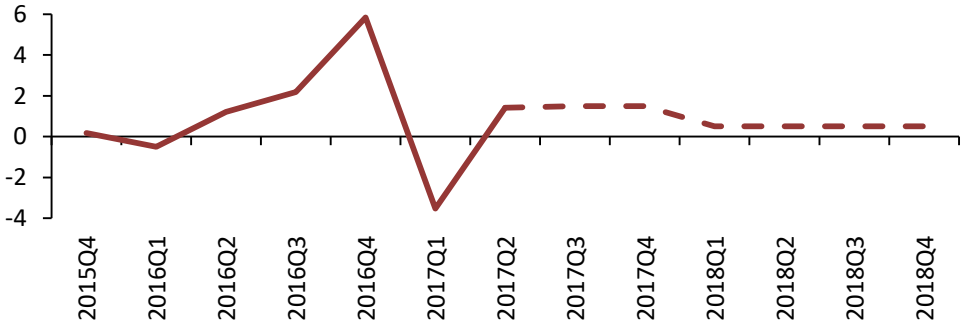


Sources: CSO and internal IFAC calculations.

Budget 2018 forecasts real **GDP** growth of 4.3 per cent this year, followed by a 3.5 per cent expansion in 2018. These forecasts are almost unchanged from *SPU 2017*, although the composition of growth has changed (see below). The carryover for 2017 now stands at 3.1 per cent, reflecting the momentum present in the economy.[42] Taken at face value, the *Budget 2018* forecasts imply that a quarter-on-quarter growth rate of 1.5 per cent would be needed in the remaining two-quarters to be consistent with the Department's 4.3 per cent forecast for annual GDP growth in 2017.[43] A significant slowdown in quarterly growth is implied for 2018, with only 0.5 per cent quarter-on-quarter growth required to achieve 3.5 per cent annual growth.[44]

Figure 2.4: Real GDP Growth Rates

Percentage change (quarter-on-quarter, seasonally adjusted)



Source: CSO; *Budget 2018*; and Internal IFAC calculations.
Notes: Solid line represents historical outturns; dashed line represents *Budget 2018* forecasts.

[42] The carryover for 2017 refers to the growth rate that would be observed in 2017 if seasonally adjusted real GDP remained unchanged at its Q2 2017 level for the second half of this year.

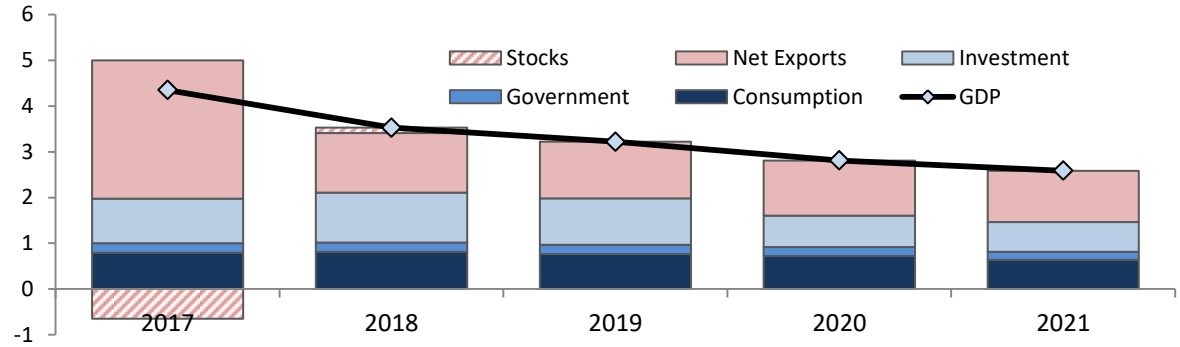
[43] If the revisions to services consumption anticipated in *Budget 2018* were to materialise and boost GDP in the first half of 2017 then slightly lower quarter-on-quarter growth (approximately 0.1 percentage points) would be required to achieve 4.3 per cent annual growth.

[44] *Budget 2018* documentation included a box on revisions to quarterly data and the role they can play when producing forecasts of the Irish economy. While noting that the Irish quarterly data are heavily revised and volatile, the box also noted that "carryover analysis and implied quarterly profiles can, in principle, be useful tools to inform short-term forecasts."

Figure 2.5 shows the underlying contributions to GDP growth in *Budget 2018* forecasts. 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 from 2019 to 2021 are due to steadily declining contributions from both underlying net exports and underlying domestic demand. The declining net export contributions in the later years reflect weaker external demand for Irish exports, largely due to the assumed impact of Brexit. The smaller domestic demand contributions are driven by underlying investment and to a lesser extent, consumption.

Figure 2.5: *Budget 2018* Underlying Contributions

Percentage Point Contributions to Real GDP growth

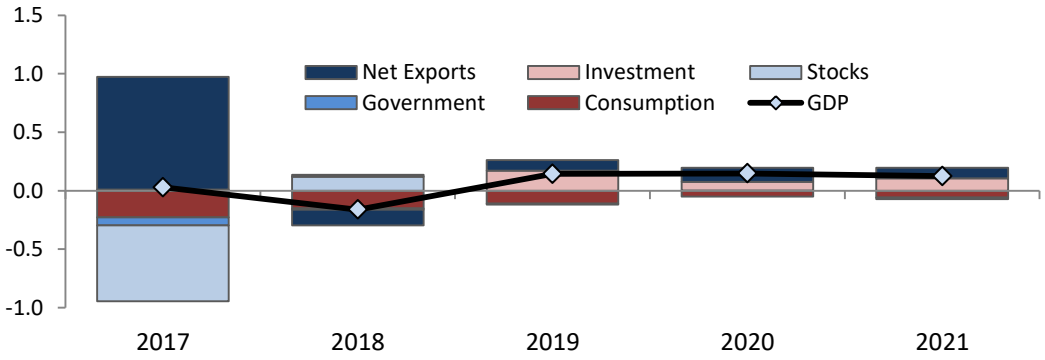


Sources: Budget 2018; CSO; and internal IFAC calculations.
Note: Underlying investment and net exports strip out intangibles and aircraft purchases in full as these are, in the main, imported, with little impact on real GDP.

The forecasts for GDP growth are largely unchanged since *SPU 2017*. However, there have been changes in the composition of growth (Figure 2.6). Compared to *SPU 2017*, the contribution from underlying net exports has been revised up for this year, with downward revisions to the contributions from consumption, government and stocks offsetting this. From 2018 on, the contribution underlying investment has been revised up, reflecting an upward revision to forecast housing completions.

Figure 2.6: Changes in the Underlying Contributions to GDP Growth: *Budget 2018* vs *SPU 2017*

Percentage Point Contributions, *Budget 2018* Forecasts Less *SPU 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.

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 2.2 shows that the slowdown in growth from 2017 to 2018 is driven by a smaller contribution from underlying net exports, with an increased contribution from underlying domestic demand not large enough to offset this. Thereafter, domestic and external contributions decline steadily out to 2021. Domestic demand makes the bulk of the contributions to growth from next year on, with consumption and investment mainly responsible.

Table 2.2: Real GDP Growth Forecasts and Underlying Contributions
Percentage Change, Unless Otherwise Stated

	2017	2018	2019	2020	2021
Real GDP Growth	4.3	3.5	3.2	2.8	2.6
Domestic Demand (p.p.) [1]	1.3	2.2	2.0	1.6	1.5
Net Exports (p.p.) [1]	3.0	1.3	1.2	1.2	1.1

Sources: Budget 2018.
[1] 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.

Real **GNP** is forecast not to grow at all this year, diverging significantly from GDP growth. This reflects the assumption that net factor flows are to grow very strongly this year. While net factor flows have shown significant growth in the first half of this year, the forecasts of the Department imply exceptionally fast growth in the second half of this year (for the second half of 2017, quarter-on-quarter growth of 4 per cent on average would be required to meet the Department's forecasts in real terms). While GNP may not be a particularly important or informative indicator at the moment, forecasts of GNP are currently being used to generate forecast values of GNI*.[45] After this year, GNP is forecast to grow at similar rates to GDP.

2.3.3 *Budget 2018* Medium-Term Forecasts, 2019-2021

The forecasts published in *Budget 2018* cover the period 2017–2021. While not a legal requirement, it has been established practice that the forecasts of the Department extend to five-years ahead (t+5), which in this case would be 2022. This is the first occasion since *Budget 2015* on which forecasts have not extended out to five-years ahead. As medium-term forecasts are a key input into fiscal policy and identifying potential imbalances, the Council would welcome a return to forecasting out to t+5.

In terms of the supply-side forecasts, there have been substantial revisions to estimates of potential output growth and the output gap in *Budget 2018* relative to *SPU 2017* (Table 2.3 and Figure 2.7). CAM-based forecasts of potential output growth for 2019-2021 have been revised up significantly. As the estimates of real GDP growth are relatively unchanged, this leads to a very

[45] This assumes that the following four items are unchanged: EU taxes/subsidies, factor income of re-domiciled PLCs, depreciation on research & development-related intellectual property (IP) imports, and depreciation on aircraft for leasing.

different picture of the output gap for these years. Box E below notes some of the many shortcomings of the CAM as applied to Ireland and Box B highlights the procyclical nature of CAM estimates. Due to these shortcomings, CAM-based estimates of potential output can give poor insights as to where the Irish economy is in terms of the business cycle.

Looking at a range of imbalance indicators and alternative models of potential output, it seems unlikely that there is significant overheating in the Irish economy as suggested by output gap estimates published with *Budget 2018* (see Chapter 1 for IFAC's range of estimates for the output gap). Even ignoring the starting point of 2017, the direction of change in the output gap over the forecast horizon seems implausible. The *Budget 2018* estimates imply that the economy will be growing at well below its potential rate in 2018 and 2019, before growing faster than the potential rate again in 2020 and 2021, leading to a small negative output gap. A more plausible path for the output gap would be one that continues to approach zero from below, possibly becoming more positive in coming years as the labour market tightens, wage and price pressures grow and savings decline. This would be more likely if the recent strong growth were to continue (see Section 2.4.2 on imbalances).

Table 2.3: Medium-Term Supply-Side Forecasts

Percentage change unless otherwise stated

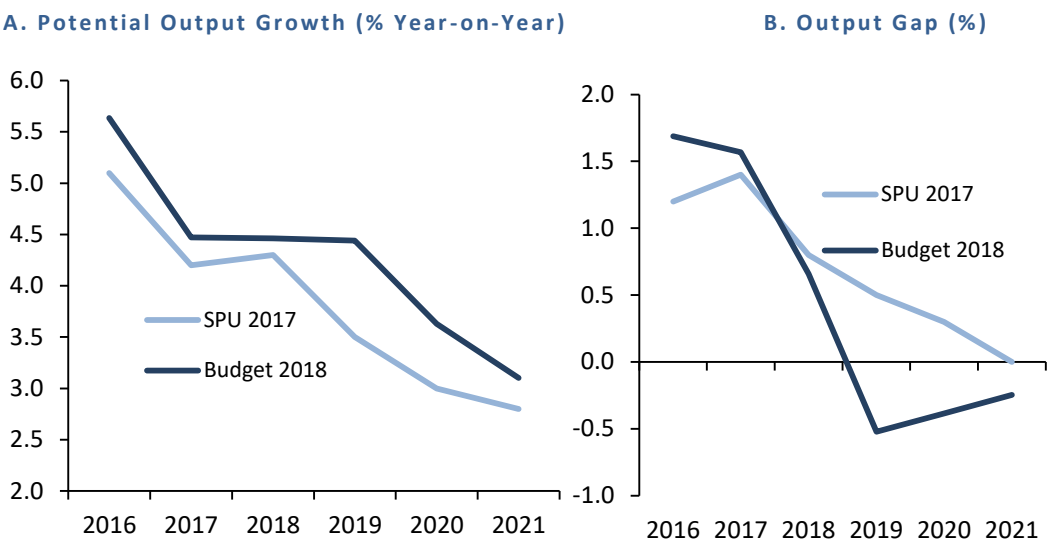
		2016	2017	2018	2019	2020	2021
Budget 2018	Real GDP Growth	5.1	4.3	3.5	3.2	3.8	3.3
	Potential GDP Growth	5.6	4.5	4.5	4.4	3.6	3.1
	Output Gap (% Potential GDP)	1.7	1.6	0.7	-0.5	-0.4	-0.2
SPU 2017	Real GDP Growth	5.2	4.3	3.7	3.2	2.8	2.5
	Potential GDP Growth	5.1	4.2	4.3	3.5	3.0	2.8
	Output Gap (% Potential GDP)	1.2	1.4	0.8	0.5	0.3	0.0

Source: CSO and Department of Finance.
Note: Supply-side real GDP growth rates are not the same as those shown for the demand-side.

The supply-side real GDP growth rates shown in Table 2.3 for 2020 and 2021 are not the same as those shown for the demand-side (Figures 2.5 and 2.6 and Table 2.2 use the demand-side forecasts). This is due to the way mechanical closure under the CAM operates. Forecasts for actual output are adjusted so that the output gap closes in year t+5 (2022). In this case this means that the supply-side forecasts of actual real GDP are higher than the demand-side forecasts so that the output gap closes from below zero. The demand-side forecasts reflect the views of the Department on growth prospects in the later years.

As a result of procyclicality in the CAM (Box B and Box E), estimates of potential output tend to track actual GDP quite closely, rather than providing robust estimates of potential which may deviate significantly from actual output.[46]

Figure 2.7: Vintages of Medium-Term Projections



Sources: Budget 2018 and *SPU 2017*.

The procyclical nature of CAM estimates can result in misleading signals being given regarding the cyclical position of the economy, particularly in real-time (Box B, Chapter 1). This is particularly problematic as CAM-based estimates are used for official measures of the structural balance and, hence, can give misleading signals for policymakers. Recognising these shortcomings, previous Fiscal Assessment Reports have highlighted the need for alternative supply-side methodologies to be developed by the Department, rather than reliance being placed on the CAM almost exclusively for projections and for officially published estimates of the cyclical position of the economy.

External conditions are projected to deteriorate in the later forecast years, mainly due to the assumed impact of Brexit. The Department is currently assuming a hard Brexit, where a World Trade Organisation-based tariff regime comes into effect from 2019. While there is uncertainty surrounding what form Brexit may take, the timing is also uncertain, with the possibility of transitional arrangements delaying the main economic impacts until 2021. As highlighted in IFAC (2017a), the impact is highly uncertain and could be more severe than assumed. This reflects the complexity in quantifying the impact of such an event. In addition, model-based estimates (such as those using COSMO) tend to show the economy gradually adjusting to the shock and reaching a new steady-state level (Bergin *et al*, 2016). It may be more likely in this case that the impact of such

[46] This means that as the economy experiences a cyclical upturn, estimates of potential growth rise, while in a downturn the reverse process is evident. In addition, the regional nature of the Irish economy makes self-reinforcing growth dynamics more likely. Previous experience has shown how inward migration can occur in periods of strong growth, further boosting potential growth in these periods.

a shock would be more sudden, with a sharp front-loading of the negative impact when the shock occurs. As noted in IFAC (2017a), COSMO estimates assume that the impact on the Irish labour market from a shock to UK output is equivalent to that of an average trading partner. Given that Irish exports to the UK may be more labour-intensive than average, this may underestimate the medium-term impact of a hard Brexit on the Irish economy.

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, with additional indicators incorporated into output gap equations as proposed by Borio *et al* (2014).[47] For further discussion of imbalances see Section 2.4.2.

Box E: Problems with the Commonly Agreed Methodology as applied to Ireland

This box sets out some of the problems that arise from using the Commonly Agreed Methodology (CAM) for estimating potential output in Ireland. The unsuitability of the CAM has been highlighted in previous *Fiscal Assessment Reports* and has been highlighted by the Department going back as far as 2003 (Department of Finance, 2003) and by Bergin and FitzGerald (2014).

The CAM uses a production function approach, whereby potential output is driven by capital, labour and technological progress. While production function approaches are standard in the literature, there are alternative methods to estimate potential output, with univariate and multivariate filters also popular. The basic structure of the CAM production function is shown in equation (1) below.

$$Y = L^{\alpha}K^{1-\alpha}TFP \qquad (1)$$

where Y = potential output; L = trend labour inputs; K = net capital stock; and TFP is Trend Factor Productivity; with the elasticities of output to labour and capital determined by α. The exponents on labour and capital (α and 1-α) represent the respective factor shares. The fact that they sum to one reflects the constant returns to scale assumption.

The specific application of the production function methodology leads to questionable estimates for Ireland. Some of these aspects are discussed below:

(1) The natural rate of unemployment (NAWRU): Labour inputs are key to the production function approach and one of the most important aspects of this is the estimate of the NAWRU, which represents the long-run equilibrium unemployment rate consistent with keeping inflation constant.[48,49] While structural changes in the labour market can lead to changes in the NAWRU, the NAWRU itself would be expected to be reasonably stable over time. Figure E1 below shows how CAM-based estimates of the NAWRU vary greatly from year to year and appear to track actual unemployment quite closely.

[47] See Box A, Fiscal Assessment Report, November 2015.

[48] NAWRU stands for the Non-Accelerating Wage Rate of Unemployment.

[49] Labour inputs have an output elasticity of 2/3 (corresponding to α = 2/3 in (1) above).

As labour inputs make a substantial component of potential output, NAWRU estimates being quite close to actual unemployment rates contributes to potential output growth mirroring growth of actual output, as outlined below.

(2) Net Capital Stock: The assumption under the CAM is that when at its potential, output is consistent with full use of the existing capital stock. Recent distortions to the capital stock data cause difficulties for Ireland. In recent years there have been substantial levels of investment recorded in the National Accounts in the form of investment in intangible assets. In addition, there have been large reclassifications of balance sheets (in 2015) which further boost the level of the capital stock. Such developments contribute positively to potential output estimates as measured under the CAM (this approach was adopted to help prevent distortions to estimates of the output gap in 2015), though their contribution to the labour market, to domestic incomes, and to government revenues are less relevant than are other activities. A more appropriate approach might be to use a modified capital stock that excludes some of the capital assets which do not generate income or employment for Irish residents. Prior to the crisis, large additions to the capital stock were made via the housing sector. Because of the assumption highlighted above, these increases contributed to stronger potential output growth even though these investment levels proved unproductive.

(3) Total Factor Productivity: The third element of the production function is Total Factor Productivity (TFP). Historical estimates are obtained as a residual (often referred to as the Solow residual), after assuming output elasticities of labour and capital inputs of 2/3 and 1/3 respectively.[50] Naturally, if the other production function inputs (capital stock and labour) are poorly measured, then the quality of TFP estimates will also suffer as it is a residual. The TFP series is de-trended using a Kalman filter, which draws on information from a capacity utilisation series for the manufacturing sector.[51] This is particularly problematic for Ireland, as the capacity utilisation series was discontinued in 2008.

(4) Mechanical closure: Some applications of the CAM (not all, as this is optional) involve enforced closure of the output gap over the medium term. In effect, this approach sees the output gap closed in three equal parts from its starting position in year t+2 to year t+5 (e.g., by 2022 in the *Budget 2018* forecasts). This is an approach used by the Department of Finance in its own application of the CAM. Forecasters often assume that growth reverts to trend levels in the medium term given uncertainties about longer-horizon developments and the transient nature of demand shocks. Yet there may be good reasons to suggest that output may fall short of or even overshoot potential levels for a sustained period of time. One scenario that the Council has considered plausible over the medium-term is that persistent supply shortfalls in the residential sector could lead to a period of above-normal output that lasts beyond the very near term (IFAC, 2017b).

(5) Use of GDP: While GDP is used as the standard measure of national output across the EU, this is problematic for Ireland. GDP has been considered to be 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. In 2015, a level shift was observed, with both GDP and GNP boosted by a dramatic rise in net exports that resulted from

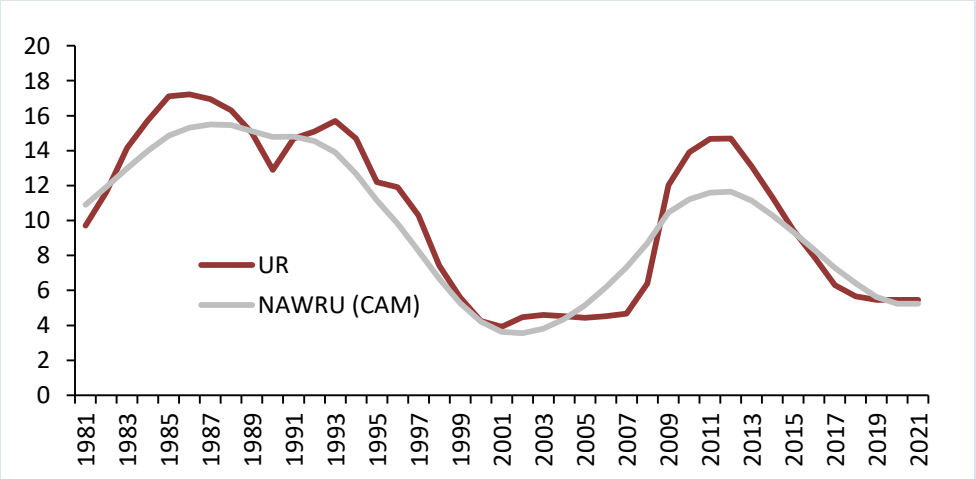
[50] Given that the labour share (as a percentage of GNI*) is currently less than 50 per cent, a 2/3 output elasticity on labour seems high.

[51] Using a Kalman filter rather than a HP filter is thought to be advantageous as it is less susceptible to end-point bias.

corporate restructuring. In 2014, the adoption of new international standards for national accounting saw both measures boosted by the recognition of investment in R&D. 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 employment or domestic incomes, 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 the potential output of the Irish economy. An alternative metric (which has been used for IFAC estimates of potential output) that could be more appropriate is domestic GVA. This excludes output from the multinational-dominated sectors of the economy and gives a better indication of the cyclical position of the domestic economy.

Figure E1: NAWRU and the Unemployment Rate (UR)

Percentage of labour force.



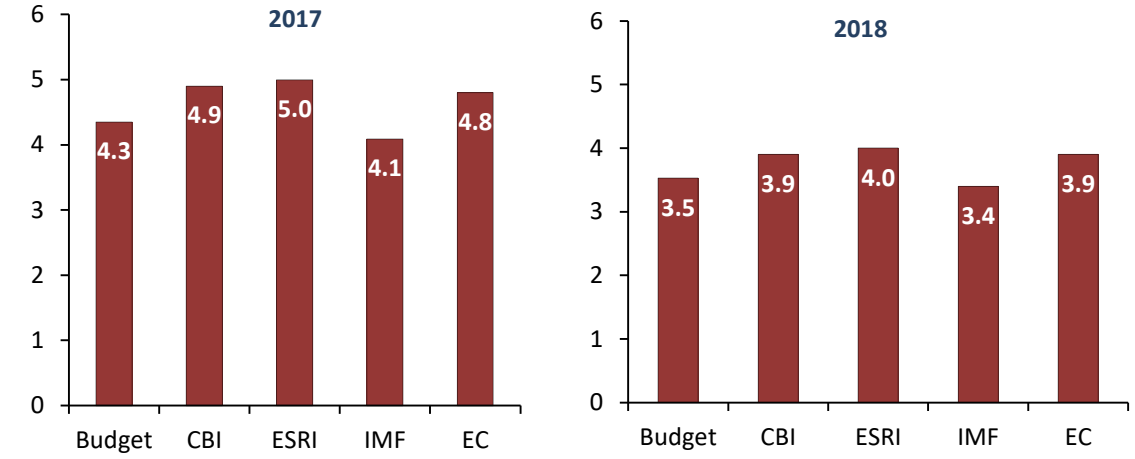
Sources: CSO and *Budget 2018*.

2.3.5 Forecasts of Other Agencies

Most forecasting agencies envisage strong real GDP growth in 2017, with more moderate rates of growth next year (Figure 2.8). For both this year and next year, the forecasts of the Department are lower than those of all agencies shown apart from the IMF. Interestingly, all agencies apart from the Department of Finance have significantly upgraded their forecasts for 2017 and 2018 in recent rounds (Figure 2.9).

Figure 2.8: Real GDP Growth Forecasts

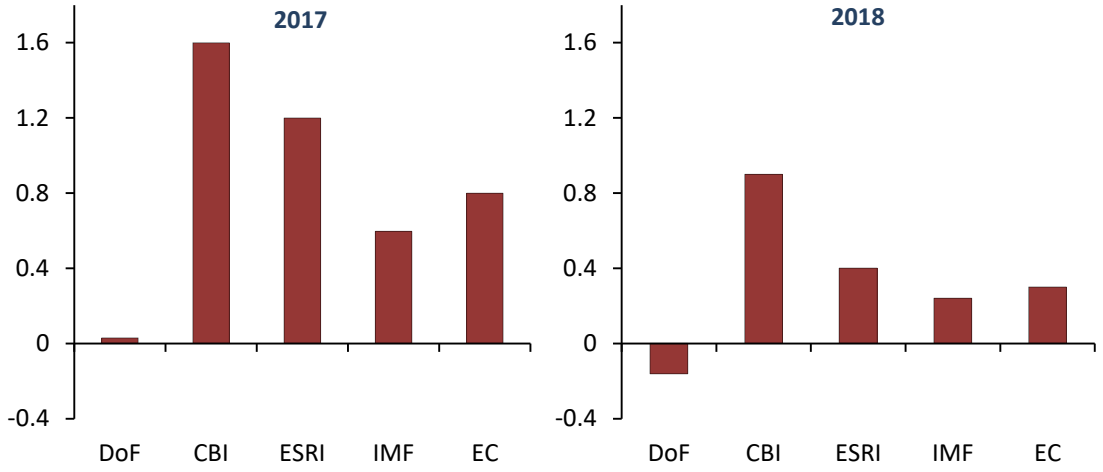
Percentage, year-on-year



Sources: Budget 2018; ESRI *(Quarterly Economic Commentary, Autumn 2017);* IMF *(World Economic Outlook, October 2017);* Central Bank *Quarterly Bulletin, October 2017;* and European Commission (*European Economic Forecast, November 2017).*

Figure 2.9: Changes in Real GDP Growth Forecasts

Latest Forecasts – Spring Vintages



Sources: Budget 2018; SPU 2017; ESRI *(Quarterly Economic Commentary, Spring 2017 and Autumn 2017);* IMF *(World Economic Outlook, April 2017 and October 2017);* Central Bank *Quarterly Bulletin, April 2017 and October 2017;* and European Commission (*European Economic Forecast, May 2017 and November 2017).*

Taking the four agencies other than the Department, their forecasts have been revised up by an average of 1 percentage point for 2017 and 0.5 of a percentage point for 2018, partially reflecting lower initial forecasts. By contrast, the forecasts of the Department are unchanged for 2017 and revised down by 0.2 per cent for 2018.

2.4 Risks and Imbalances

2.4.1 Risks

While forecasts of the Irish economy remain relatively positive, substantial risks surround this central scenario. The recovery in the economy since 2012 has been aided by largely 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. The last twelve months have seen some reversals of these trends, with weaker external demand and a significant appreciation of the euro against sterling and the dollar. Given the open nature of the Irish economy, changes to the external environment could have a sizeable impact on the economy.

Table 2.4 below shows the macroeconomic risks identified in *Budget 2018,* along with the Department's assessments of relative likelihoods and impacts. This table also includes comments from IFAC on each of the risks identified. Two additional risks, which were not included in *Budget 2018*, are also added here, with the Council's assessment of the respective likelihoods and impacts. Overall, the *Budget 2018* risk matrix presents a comprehensive list of the main macroeconomic risks. "Overheating" was added to the Department's risk matrix in *Budget 2018*, having not been included in previous risk assessments. Based on the Council's assessment of the current cyclical position of the economy discussed above, the inclusion of this risk by the Department is warranted and timely. *Budget 2018* notes that "having been tilted to the downside in the spring set of forecasts, short-term risks now appear broadly balanced, with both upside and downside risks". The Council also assesses risks to be more balanced, with substantial upside and downside risks to growth forecasts in the short-term.

Table 2.4: Assessing *Budget 2018* Risk Matrix

Risk	Likelihood	Impact	IFAC Comment
Exchange Rate Re-Alignment	H	H	Since the middle of last year, the euro has appreciated significantly against sterling and the dollar. While exchange rates could become more or less favourable in the coming years, increased volatility could be damaging to Irish firms.
"Hard Brexit"	M	H	A WTO-style arrangement would appear to have the most significant economic implications for both the UK and its trading partners. This scenario could have significant implications for medium-term growth prospects in Ireland. 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, rather that the event itself will occur. In addition the shock may be more sudden, severe and persistent than current model-based estimates would suggest.
External Demand Shock	M	H	Ireland has 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 impact of geopolitical tensions may be limited, second-round impacts could be more significant, particularly if global trade is disrupted.
De-globalisation	L	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. World trade growth normally surpasses GDP growth, but grew at the same rate in 2015 and 2016. OECD forecasts suggest trade growth will pick up somewhat in 2017 and 2018.

Risk	Likelihood	Impact	IFAC Comment
Loss of Competitiveness	M	H	Given the extremely open nature of the Irish economy, any losses in competitiveness could have significant growth implications. There are several possible sources that could lead to an erosion of competitiveness, with both domestic (wage pressures, commercial property inflation) and external (exchange rates) sources possible.
Housing Supply Pressures	H	M	The lack of a supply response to the excess demand in the property market has seen a continued 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 would be welcome and 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, presuming other sectors continue to grow strongly. Labour mobility may also be adversely affected by the shortage of housing supply.
Concentrated Production Base	L	H	Ireland's production base is quite concentrated in a small number of sectors. As a result 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. Normalisation of monetary policy will also have to be managed carefully.
Policy Uncertainty around tax policy in the US and EU	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.
Overheating Economy	M	M	As discussed extensively above, overheating could occur in the Irish economy in the coming years, even without significant credit growth. As the economy now appears to be close to its potential level, strong growth in future years could see the economy overheat.
Inappropriate Monetary Policy (IFAC Risk)	M	H	A risk which is not identified in *Budget 2018* is that monetary policy could become more inappropriate for Ireland. While there have been some upward revisions to projections for output and inflation in the Euro area, accommodative monetary policy looks set to continue at least in the short-term, albeit that quantitative easing is to be scaled back from next year.[52] 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 is for Ireland in the coming years. The last crisis showed the impact that inappropriate monetary policy can have in amplifying the business cycle.
Inappropriate Domestic Policy (IFAC Risk)	M	M	With monetary policy set by the European Central Bank (ECB), Ireland has fewer levers for managing the domestic economy. There are two main domestic policy tools. Given the current cyclical position of the economy and forecasts of strong growth rates, fiscal and macroprudential policy may need to play an active role in preventing overheating in the economy.

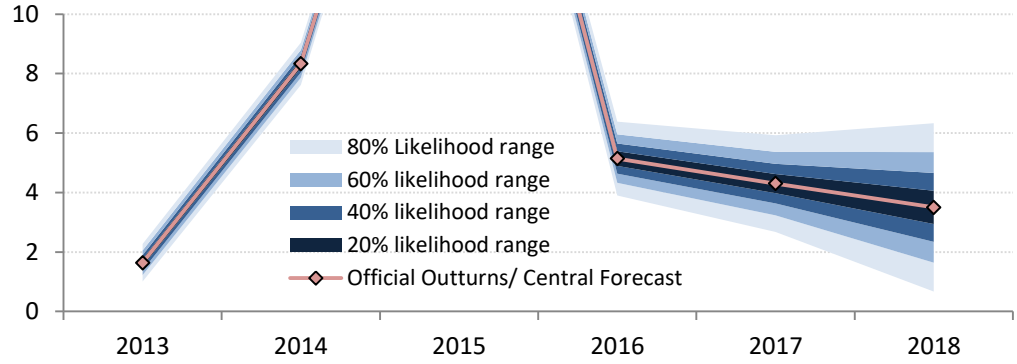
Note: Likelihood and impacts from *Budget 2018*: H= High; M = Medium; L = Low.

[52] Forecasts for inflation have been revised up but remain below the 2 per cent target level in 2017 and 2018. Output growth is forecast to be 2.1 per cent this year, falling to 1.9 per cent next year (IMF *World Economic Outlook, October 2017*).

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 having a tendency towards large revisions to historic data. Figure 2.10 shows historic data and *Budget 2018* forecasts with fans based on historical revisions and forecast errors.

Figure 2.10: Real GDP Fan Chart Based on *Budget 2018* 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 vertical axis is truncated to make the 2017 and 2018 forecasts legible.

2.4.2 Imbalances

With a realistic prospect of overheating occurring in the years ahead, it is worth considering how overheating or imbalances could look in an Irish context. Overheating in this case refers to a situation where the economy is producing a level of output above what can be sustainably produced. Ideally, cyclical fluctuations around this sustainable level would be captured by estimates of potential output and the output gap. In line with the modular approach adopted by the Council (Box A *November 2015 FAR*, IFAC 2015), this section looks at a number of different indicators which could act as warning signals of economic imbalance, which can be a manifestation of the cycle. In each case, the usefulness/rationale for examining the indicator is given, as well as what the latest values would suggest for the cyclical position of the economy. Four broad modules are examined in Appendix C, namely the labour market, external balances, investment/housing, and credit conditions.

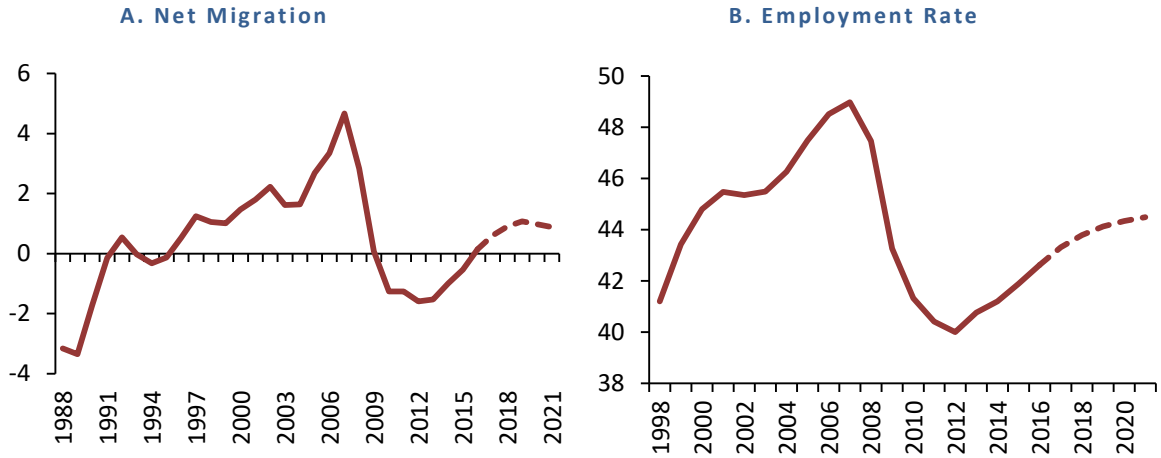
Labour Market

As a small open economy, competitiveness is a key component to Ireland's economic growth. Upward wage or general price pressures could erode competitiveness gains achieved in recent years and provide a signal of an economy that is exceeding sustainable levels of output. Consumer price inflation measured by CPI, HICP or core HICP remains low and has not accelerated recently. Wage growth, having been just above 1 per cent in 2014 and 2015, accelerated moderately through 2016. While there are some signs of wage growth picking up, there do not yet appear to be significant price pressures apparent across the Irish economy. If construction activity remains

subdued and house prices and rents continue to increase, this could have negative competitiveness implications also.

Figure 2.11: Net Migration and Employment Rates

Percentage of labour force (A); Percentage of population (B)



Sources: CSO; *Budget 2018* and internal Irish Fiscal Advisory Council (IFAC) calculations.
Note: Dashed line indicates forecasts from *Budget 2018* for 2018-2021. Revised migration data are used here (including the 2017 outturn), although this was not available in time to be used in this forecast round.

The labour market is another area to be examined when looking for potential signs of overheating. Previous experience has shown that Ireland has a very elastic labour supply, particularly through the migration channel. In the 2000s there was large-scale inward migration, which further supported strong employment growth. This alleviated inflationary pressures even as unemployment rates had already fallen to low levels. Large migration flows into Ireland could indicate that overheating is occurring in the labour market, as strong demand for labour results in a supply response. Figure 2.11 shows net migration flows including the Department's latest forecasts. Stable net inward migration flows of less than one per cent of the labour force are expected in later years, well below that seen in the run up to the last crisis. However, if the upward trend seen over the past few years were to continue, this could point towards sustainability concerns in the labour market.

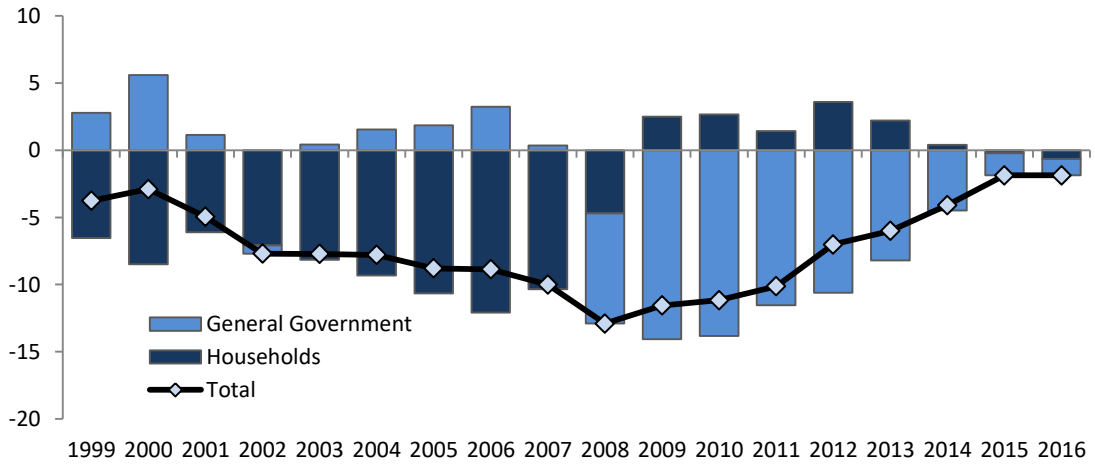
When thinking about unemployment rates in the context of economic imbalances or cyclical developments, the NAWRU is a key consideration. This describes the unemployment rate that is estimated to be consistent with stable wage inflation. If the unemployment rate were to fall below the NAWRU, one would expect inflationary pressures to build. As the NAWRU is not actually observed, it must be estimated, and estimates of the NAWRU for Ireland vary greatly (see Figure D1). Forecasts from *Budget 2018* project the unemployment rate falling to around 5½ per cent in 2019 and remaining stable at that level to the end of the forecast horizon. If the unemployment rate were to fall to much lower levels and below the NAWRU, this could indicate that overheating is occurring, with associated upward pressure on wages and prices. Looking at employment rates, Figure 2.11 (B) shows that they remain (and are forecast to remain) well below pre-crisis highs.

However, this fall has been driven by younger cohorts (see Figure AC.1.F for employment rates by age) who may have been attracted to the labour market by the booming construction sector in the mid-2000s.[53] If one were to see the overall employment rate continue to increase towards pre-crisis peaks then there may be cause to question the sustainability of this.

External Balances

Ordinarily, the current account of the balance of payments would be an important indicator when looking for signs of imbalance in an economy. However, recent distortions to Irish data have made it very difficult to assess the underlying position of the current account. The headline current account balance for 2016 indicates a surplus of almost 5 per cent of GNI*. By contrast, using a modified measure of the current account (using the same adjustments as used for GNI*) would indicate a substantial deficit (Figure AC.2.A). An alternative approach is to make the adjustments as per GNI*, but to also adjust for the R&D service imports of foreign-owned multinational enterprises and the acquisitions of intellectual property and aircraft for leasing. This gives the adjusted current account shown in Figure AC.2.A. Using this metric, the adjusted current account moved into a small surplus last year. Given the difficulty in arriving at an appropriate measure for the current account, it is unlikely to give reliable signals of potential imbalances in the Irish economy.

Figure 2.12: Net Lending/Net Borrowing of Households and General Government
Percentage of GNI*



Sources: CSO; Central Bank of Ireland and internal IFAC calculations.
Note: General government balance excluding one-offs is used here. Household net lending/borrowing refers to financial assets transactions less financial liabilities transactions from the Quarterly Financial Accounts.

An alternative approach that can be taken is to examine the current account balance from the bottom-up, rather than from the top down. This can be broken into three broad sectors: the household sector, the corporate sector, and the government sector. Figure 2.12 shows the savings behaviour of the government and household sectors as a percentage of GNI*. For the government

[53] By contrast, the employment rate for 35 -44 year olds, 55-59 year olds and 60-64 year olds are all above pre-crisis levels.

sector, the metric used is the general government balance excluding one-offs. For the household sector, net borrowing/lending from the CSO's Institutional Sector Accounts is used. As shown in Box C, a different picture of net lending/saving of the household sector emerges if looking at the QFA data. It can be seen from this chart that the household sector ran significant deficits in the lead up to the financial crisis. After the onset of the crisis, as households attempted to deleverage, they became net savers again (with small net borrowings emerging in 2015 and 2016). The picture for the government sector shows the opposite pattern, with surpluses prior to the crisis, followed by large deficits after the crisis, which have been steadily declining over the past six years. Taking the two sectors together, a large net borrowing position has unwound in recent years.

The corporate sector is much more difficult to examine, given the influence of multinational activities here. One way to do so is to examine credit advanced to Irish resident private sector enterprises. Looking at the total or the total excluding financial intermediation activities, one can see that significant deleveraging has occurred recently (Figure AC.4.D in the imbalances Appendix C).[54] Credit advanced as a percentage of GNI* has fallen rapidly recently, with both series at their lowest levels relative to GNI* since the credit series started in 2003. Looking at new credit advanced to Irish resident SMEs, there has been steady growth over the past three years.[55] Overall, the three main sectors examined here – household, government and corporate – do not appear to be showing obvious signs of imbalance.[56] In addition, the adjusted net international investment position currently shows a surplus (Figure AC.2.B). However, this could change rapidly and needs to be monitored closely.

Investment/Housing Indicators

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 GNI*, 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.

Estimates of the number of housing completions needed to meet demand due to demographics, obsolescence and new-household formation vary widely, but all estimates point towards a recent

[54] This covers credit institutions resident in the Republic of Ireland, the full listing of which is available at: https://www.centralbank.ie/docs/default-source/statistics/data-and-analysis/credit-and-banking-statistics/bank-balance-sheets/credit-institutions-resident-in-the-republic-of-ireland.pdf

[55] This time series only starts in 2010 so it is difficult to ascertain how this level of lending compares to historical levels.

[56] Taking into account the difficulties in examining the corporate sector and the uncertainties surrounding the savings rate, which appears to be at or above the Irish average.

shortfall in completions. This is likely to have created significant pent-up demand.[57] Given that there has been a limited supply response so far, there may be some structural factors hindering supply.[58] If these factors were to ease, there could be a rapid increase in completions. *Budget 2018* forecasts a steady, modest increase in completions of around 4,000 each year out to 2021, when completions are forecast to reach 35,000 per annum.[59]

If the economy continues to grow rapidly, any remaining slack in the economy would be eliminated. From this position, if there were to be an increase in construction activity – which would be welcome – this would positively impact on growth and potentially lead to output exceeding sustainable levels. In order to avoid this scenario, other sectors of the economy may need to grow at more moderate rates than is currently the case.

Credit Conditions

The last time overheating was evident in the Irish economy private sector credit played a major role. The strengthening of microprudential regulation and recently introduced macroprudential rules mean that overheating is less likely to be driven by excess household credit growth. That is not to say that overheating can only occur if there is an excessive expansion in credit. There is also the possibility that excessive credit in the corporate sector could play a role, particularly as the current macroprudential rules have little impact on this sector. In addition, credit coming from outside the State and regulatory control of the Central Bank could play a role. Looking at credit indicators, both private sector measures suggest credit is weak relative to trend as a share of GDP, while there are significant differences between the adjusted and unadjusted credit-to-GDP levels (Figure AC.4.A).[60] The adjusted credit-to-GDP level has continued to fall, reflecting continued deleveraging by Irish households and firms.

Concluding Assessment of Risks/Imbalances

On balance the indicators of imbalances explored above would reinforce the view that, while the economy may not yet be overheating, it is likely to be operating close to its potential. The indicators would suggest that the short-term outlook for the Irish economy looks positive, however, significant risks remain. As a small open economy, Ireland remains exposed to changes in external conditions. Exchange rates, the monetary policy stance of the ECB and trading partner growth are all key inputs into Irish growth prospects. Risks to the forecasts may be balanced in the

[57] 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.

[58] While prices remain well below pre-crisis peaks, costs have not fallen substantially, which may be preventing a large-scale response also (see Figure AC.3.C).

[59] For example, in the period 2003-2006, completions increased by almost 9,000 per annum on average. While this ultimately proved to be unsustainable, it does show how quickly activity can accelerate.

[60] The adjusted series excludes firms engaged in financial intermediation activities, and only includes Irish resident private sector enterprises as well as households.

short-term, with upside risks stemming from the response of the housing market in particular. As noted above it is possible that the impact of a hard Brexit may be underestimated. The impact of Brexit is a key consideration for Ireland's trend growth rate, which informs the setting of appropriate fiscal policy.

3. Assessment of Budgetary Forecasts

Key Messages

- *Budget 2018* increased spending relative to earlier forecasts, and financed this with a number of discretionary revenue-raising measures. The general government balance (excluding one-off items) for 2017 is estimated at -0.4 per cent of GNI*, an improvement of 0.8 percentage points relative to 2016. For 2018, the *Budget 2018* forecasts show the balance largely unchanged, rising to –0.3 per cent of GNI*.

- For 2018, the Department's forecasts show broadly no change in the primary balance (the balance excluding interest payments) following a pattern of slower improvements in this measure in recent years. Growth in general government revenue (excluding one-off items) is forecast at 4.4 per cent in 2018, while non-interest spending growth is expected at 4.7 per cent (excluding one-off items).

- It is unclear whether the estimated yield from revenue-raising measures included in *Budget 2018* can be expected to have the same yield over the long run. For example, estimates of the yield from changes to stamp duty rates appear to be based on an estimation at a high point in the cycle of non-residential development and so the assumptions may be relatively optimistic in terms of their long-run impact. In keeping with the spirit of the new budgetary framework, permanent expenditure increases should be funded by revenue-raising measures that can be considered sustainable over the long run.

- For the medium term (2019-2021), the government balance is forecast to improve marginally in 2019, while over-complying with the fiscal rules. Continued projected over-compliance implies small budget surpluses in 2020 and 2021. However, given these projections are based on not using all available fiscal space, they may overstate the budget balance.

- The Council's illustrative estimate of the cost of providing today's level of public services over the forecast horizon to 2021 – the "Stand-Still" scenario – implies that the spending increases currently budgeted for in *Budget 2018* over 2019–2021 would fully accommodate demographic pressures and the cost of maintaining real public services and benefits.

3.1 Introduction

This chapter assesses the latest set of budgetary forecasts produced by the Department of Finance in *Budget 2018*. Section 3.2 examines the estimates for 2017, Section 3.3 assesses the Budget forecasts for 2018, and Section 3.4 analyses the medium-term forecasts for 2019–2021. Section 3.5 provides an assessment of the fiscal risks.

Table 3.1 summarises the main budgetary aggregates for 2016–2021 and includes *Budget 2018* plans. It shows a slowdown in the improvement in the general government balance relative to previous forecasts, with the balance now forecast to return to surplus only in 2020. Reflecting falling interest costs, the primary balance shows very limited annual improvements until the last two years of the forecast horizon (2020 and 2021).

Table 3.1: *Budget 2018* Fiscal Outturns for 2016 and Forecasts (2017-2021)
% of GNI*, unless otherwise stated

	2016	2017	2018	2019	2020	2021
General Government Balance, € billions	-1.9	-1.0	-0.5	-0.3	0.8	2.9
General government Balance	-1.0	-0.5	-0.3	-0.2	0.4	1.3
General Government Balance, excl. one-off items [1]	-1.2	-0.4	-0.3	-0.2	0.4	1.3
Primary Balance	2.3	2.6	2.6	2.5	2.9	3.5
Primary Balance excl. one-off items [1]	2.1	2.7	2.6	2.5	2.9	3.5
Total Revenue, € billions	72.6	75.4	78.7	81.6	84.8	88.4
Total Revenue excl. one-off items, [1] € billions	72.1	75.4	78.7	81.6	84.8	88.4
Total Revenue excl. one-off items growth y/y[1]	2.1	4.6	4.4	3.6	3.9	4.3
Total Revenue excl. one-off items [1]	38.1	39.6	39.6	39.3	39.3	39.4
Total Expenditure, € billions	74.6	76.4	79.3	81.9	84.0	85.5
Total Expenditure excl. one-off items [1] € billions	74.4	76.2	79.3	81.9	84.0	85.5
Total Expenditure excl. one-off items growth y/y[1]	1.3	2.5	4.0	3.3	2.5	1.9
Total Expenditure excl. one-off items [1]	39.3	40.1	39.9	39.4	38.9	38.1
Interest Expenditure € billions	6.2	5.9	5.6	5.6	5.4	5.0
Primary Expenditure, € billions	68.4	70.5	73.6	76.3	78.6	80.5
Primary Expenditure growth y/y	-0.5	3.1	4.4	3.7	2.9	2.4
Primary Expenditure excl. one-off items [1] € billions	68.2	70.3	73.6	76.3	78.6	80.5
Primary Expenditure excl. one-off items [1] growth y/y	2.4	3.1	4.7	3.7	2.9	2.4
Primary Expenditure excl. one-off items [1]	36.1	37.0	37.0	36.8	36.4	35.8
Nominal GNI* Growth %	9.4	0.6	4.5	4.5	4.0	4.0

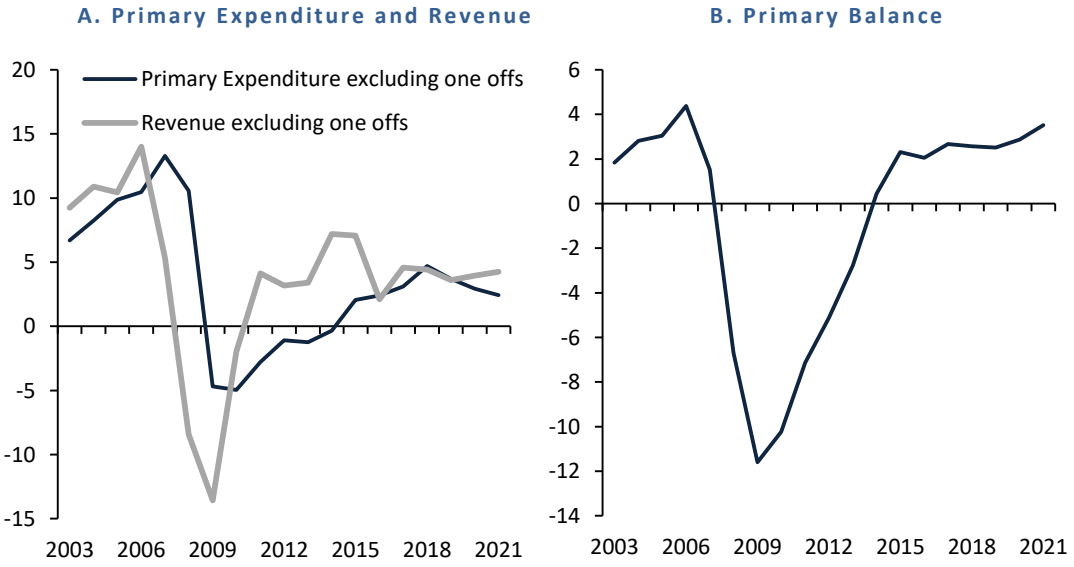
Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: [1]One-off items/temporary measures are as assessed by the Council to be applicable, as per Table 1.1, Chapter 1. These one-offs are removed from variables to get a sense of the underlying fiscal position.

The forecasts published in *Budget 2018* cover the period 2018-2021, with estimates provided for 2017. Although not formally required, the Department had established a practice of publishing five-year-ahead forecasts, which in this case would be out to 2022. As medium-term forecasts are key

for setting the public finances on a sustainable path, the Council would welcome a return to forecasting on this horizon.

Following relatively high and ultimately unsustainable growth pre-crisis, and considerable consolidation of expenditure during the crisis, primary expenditure is expected to grow at a more sustainable average annual rate of 3.4 per cent over the period 2018–2021, albeit that this hinges on slowing expenditure growth in the later years of the forecast horizon, which may not be realistic (Figure 3.1A). General government revenues also grew considerably pre-crisis, and fell from 2008 before returning to positive growth in 2011. Revenue is expected to grow over the period 2018–2021 by 4.1 per cent per annum. With the average pace of revenue growth exceeding primary expenditure growth, the primary balance is expected to improve in the later years of the forecast period (2020 and 2021), although remaining broadly flat in the near term (2018–2019) as shown in Figure 3.1B.

Figure 3.1: Primary Expenditure, Total Revenue and the Primary Balance
Percentage change year-on-year (Panel A); % of GNI * (Panel B)



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Data are adjusted to exclude one-offs (as in Table 1.1).

3.2 Estimates for 2017

3.2.1 General Government Balance 2017

Budget 2018 estimates that the general government balance for 2017 will be marginally better than previously expected (€0.2 billion higher relative to *SPU 2017* forecasts). The improvement reflects higher-than-expected revenues (+€0.2 billion), and a broadly unchanged estimate of overall spending. Stronger current taxes and social contributions offset a fall in other revenues due to the suspension of water charges, while on the expenditure side public sector pay increases are offset

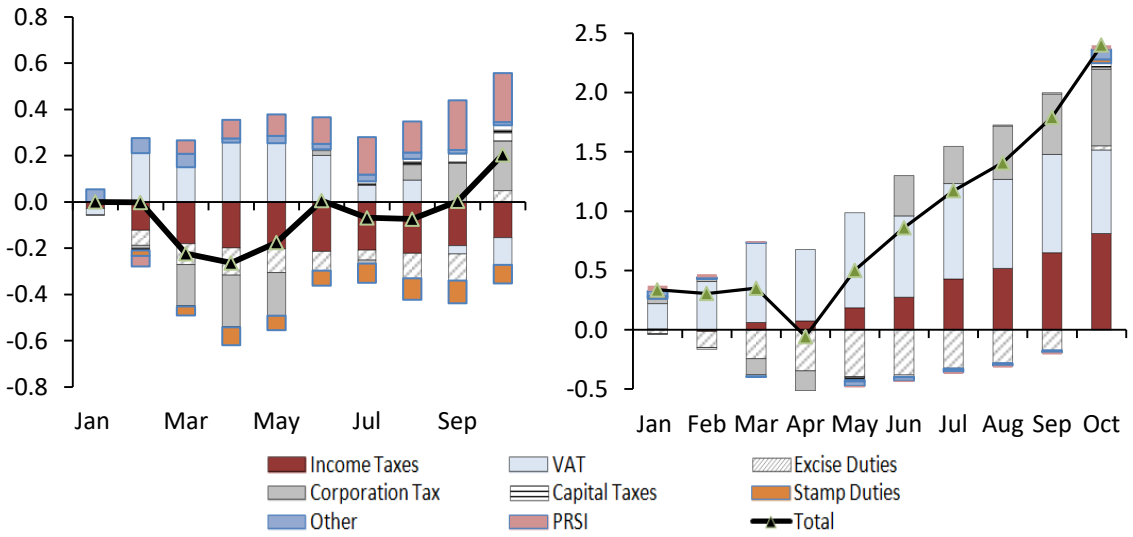
by decreases in intermediate consumption. Excluding one-off items, the deficit is estimated to be 0.4 per cent of GNI* in 2017.[61]

3.2.2 Revenue 2017

Exchequer taxes are estimated at €50.6 billion for 2017 in *Budget 2018,* unchanged from *SPU 2017* forecasts, while PRSI contributions are expected to reach €9.4 billion. Overall, strong receipts are expected for the end of the year with Exchequer tax revenues forecast to increase by roughly €2.8 billion (5.8 per cent) from 2016 levels. Figure 3.2A shows that receipts including PRSI are €0.2 billion over profile in the year to October. Figure 3.2B compares the performance to October with the 2016 outturns. Among individual tax heads, corporation tax is playing an increasingly important role in terms of the cumulative over-performance relative to forecasts for 2017, while the lower-than-expected income tax receipts are being offset by above-target PRSI contributions.

Figure 3.2A: Tax and PRSI Performance
Cumulative Outturn-Profile (2017), €billion

Figure 3.2B: Tax Revenue 2016-2017
Cumulative change year-on-year, €billion

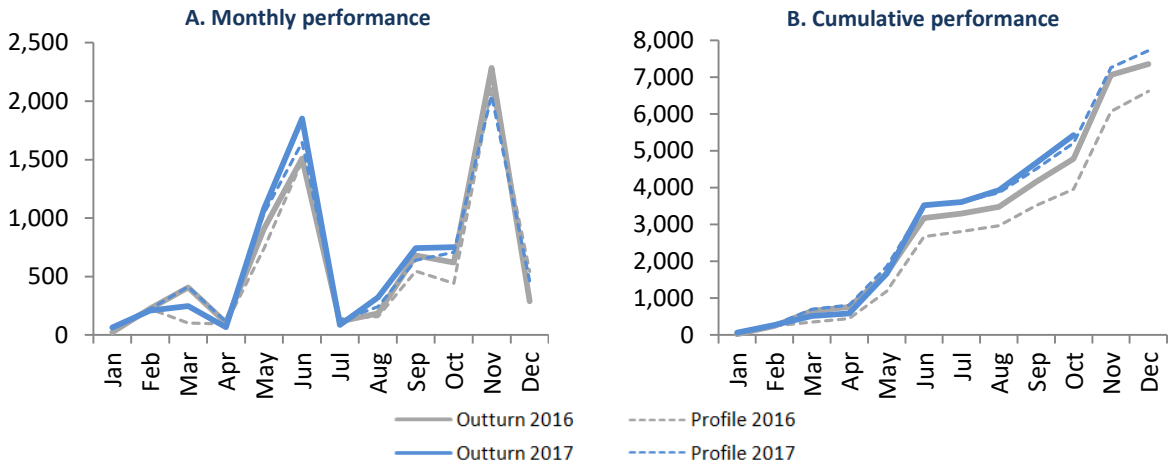


Sources: Department of Finance; and internal IFAC calculations.

Corporation tax receipts have surpassed *Budget 2017* forecasts to end-October by 4.1 per cent on a cumulative basis. The higher-than-expected tax receipts to date support the upward revision of this tax head in *Budget 2018* compared to *SPU 2017* (€250 million). This mainly reflects an outperformance in June, yielding roughly €1,853 million receipts, €205 million over profile (Figure 3.2A). The expectation of a sustained over-performance relates to the strong correlation between June and November receipts, the latter being an important corporation tax month, with receipts expected to account for more than one-quarter of all annual receipts. In particular, from the total €7.7 billion corporation tax receipts forecast for the whole year, €2.1 billion are projected to be paid in November (Figure 3.3).

[61] One-offs are those identified by the Council as being applicable and may differ from those used by the Department..

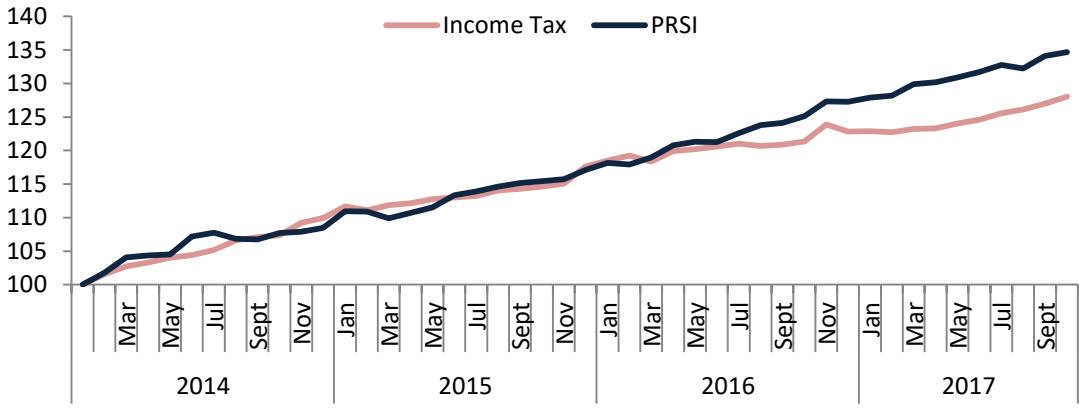
Figure 3.3: Corporation Tax Receipts and Profiles for 2016-2017
€ million



Source: Department of Finance.

Income tax receipts have been lower-than-expected to end-October, with receipts €153 million below expectations. A number of factors have contributed to these lower-than-expected receipts, namely those related to unearned sources of income (DIRT and Life Assurance Exit Tax) and Universal Social Charge (USC). A mis-estimation of the impact of USC reductions introduced in *Budget 2017* may explain some underperformance for the year so far. There are several possible reasons for this: (i) the overall impact of cuts to USC adopted in previous budgets could have been larger than estimated; (ii) the responsiveness of USC revenues to increasing incomes might have been overestimated (Acheson *et al* (2017) find that the elasticity of USC revenue is lower than was initially assumed); (iii) the split between the impact of previous USC reductions on employed and self-employed may have been mis-allocated so that the shortfall to October partly reflects timing issues with respect to when self-employed receipts are filed (mainly in November). Box F covers these issues in more detail.

Figure 3.4: Income Tax and PRSI
Index of 12-month rolling sums of Income Tax and PRSI, January 2014=100



Sources: Department of Finance; and internal IFAC calculations.

It is important to highlight the sustained over-performance of **PRSI** (2.8 per cent over profile in October on a cumulative basis). Figure 3.4 reflects the predominance of PRSI growth, which is outstripping income tax growth since mid-2016.

Looking at the other main taxes, the performance to date has been mixed: **VAT** over-performed in the first half of the year, but is now expected to come more in line with expectations. This is partly due to higher-than-expected repayments in recent months following lower-than-expected repayments in the earlier months. However, receipts to end-October are slightly below profile. **Excise duties** have underperformed to end-September and the Department do not expect them to recover by the end of this year. This has led to a strong downward revision for estimated receipts (€250 million) relative to the *SPU 2017* estimates. However, excise duty receipts have been strongly ahead of profile in October, with yields being 29 per cent higher than expected for the month.

Appendix D outlines the relevant factors impacting *Budget 2018* forecasts for the four main tax heads (VAT, Corporation Tax, Excise Duties and Income tax disaggregated by PAYE and USC). For 2017, the respective macro drivers of each tax head have all had positive impacts on receipts, especially PAYE, reflecting the strong labour market data. Policy-driven effects had a negative influence on USC and PAYE receipts. Other factors, including judgement as defined in Hannon (2014), lead to higher forecasts of VAT and corporation tax and lower forecasts of excise duties.[62]

3.2.3 Expenditure 2017

General government primary expenditure is expected to grow by 3.1 per cent (€2.1 billion) in 2017. The largest expenditure increase is in compensation of employees (5.6 per cent or €1.1 billion), with smaller increases in gross fixed capital formation (8.6 per cent or €0.4 billion) and intermediate consumption (4.2 per cent, €0.4 billion). Public sector pay increases and increased recruitment have boosted growth in compensation of employees, while plans to gradually increase public investment spending from relatively low levels contribute to gross fixed capital formation increases.

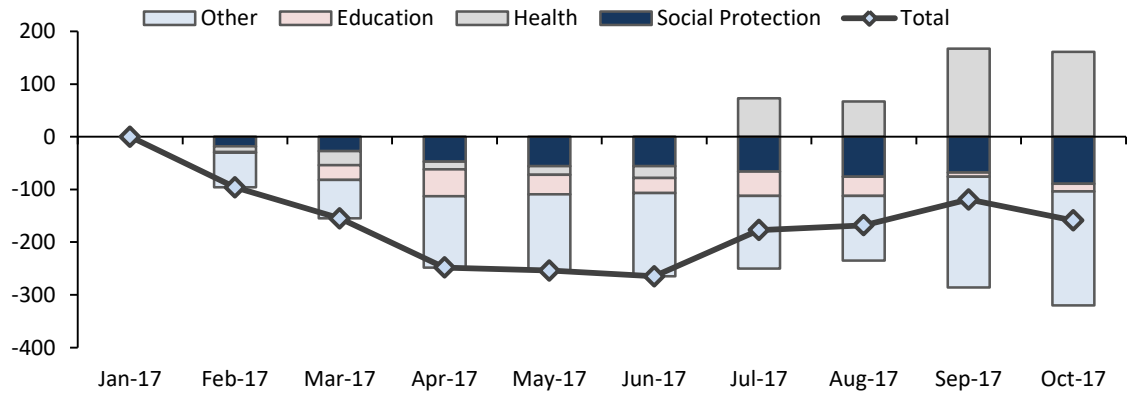
In terms of Exchequer spending, gross voted current expenditure has remained below the *Budget 2017* forecast for 2017 to date (Figure 3.5).[63] The Department of Health maintained spending below profile up to July 2017, but was over profile in each month since then. Higher-than-forecast spending has been a recurring issue for the Department of Health, resulting in "in-year" increases and supplementary estimates (Howlin, 2015). A combination of unrealistic forecasting and anticipated upward revisions to available funding is likely to have reinforced the "soft budget

[62] Judgement is defined as the difference between the forecast published by the Department (the official forecast) and the forecast generated in a replication exercise developed at IFAC. For a detailed description, see the analytical note *Tax Forecasting Error Decomposition* (Hannon, 2014).

[63] General government expenditure refers to both central and local government spending, while exchequer expenditure refers to central government expenditure, voted and non-voted.

constraint" phenomenon, thus undermining the credibility and effectiveness of the expenditure ceilings (Box I *June 2017 FAR,* IFAC, 2017b).[64] Spending by the Departments of Social Protection and Education has been lower than expected for most of the year, while considerable savings in the "other" category (Figure 3.5) have been distributed broadly across the remaining departments.

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



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

A number of in-year policy decisions were made which will impact expenditure in 2017. The decision to refund water charges paid is expected to lead to a one-off cost of €179 million in 2017. *Budget 2018* also includes a 2017 provision for the Christmas Bonus of €230 million. This represents an 85 per cent bonus for people in receipt of long-term social protection payments. The measure, which was abolished in 2009, has seen a phased re-introduction since 2014; yet in none of these years has such a payment been budgeted for at the outset. In the interest of good budgetary planning and to avoid a pattern of spending decisions based on cyclical developments, budget estimates should account for the payment of the bonus unless the Government genuinely intends not to pay it.

[64] 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.

3.3 Forecasts for 2018

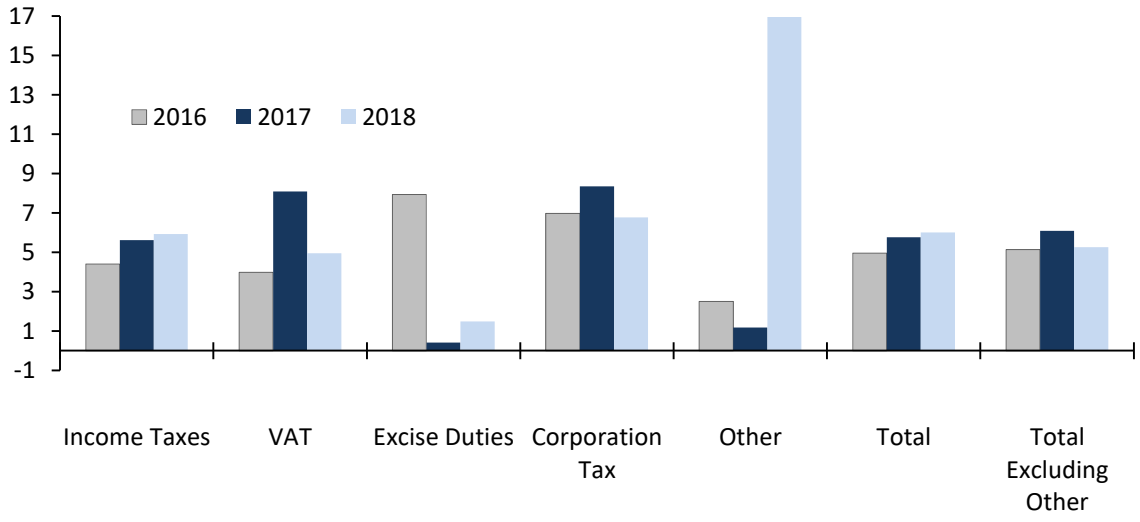
3.3.1 General Government Balance 2018

Turning to 2018, the *Budget 2018* forecasts indicate a marginal improvement in the deficit as a share of GNI*, excluding one-off items, of 0.1 percentage points relative to 2017. This gives a deficit of 0.3 per cent of GNI* for 2018. This reflects growth in total revenues of 4.4 per cent and total expenditure of 4 per cent (both excluding one-off items). *Budget 2018* increased expected spending relative to earlier forecasts, financed by discretionary tax increases. The measures impacting on the fiscal position in 2018 include expenditure measures of €1.1 billion (including the previously agreed Lansdowne Road Agreement), revenue-raising measures of an estimated €0.8 billion and tax reductions costing €0.3 billion.[65]

3.3.2 Revenue 2018

On an Exchequer basis, tax revenue for 2018 is projected at €53.7 billion. This implies growth of 6 per cent (or €3 billion) relative to 2017 (Figure 3.6). This includes the carryover effect of tax measures introduced in *Budget 2017* measures which has an impact of –€0.1 billion. *Budget 2018* introduced further tax reductions (–€0.3 billion) which offset revenue-raising measures (+€0.8 billion) to give a net increase of €0.5 billion.

Figure 3.6: Exchequer Tax Revenue 2016-2018
Percentage growth, year-on-year



Source: Department of Finance; and internal IFAC calculations.
Note: "Other" is the sum of Stamp Duties, Local Property Tax, Customs, Capital Gains and Capital Acquisitions.

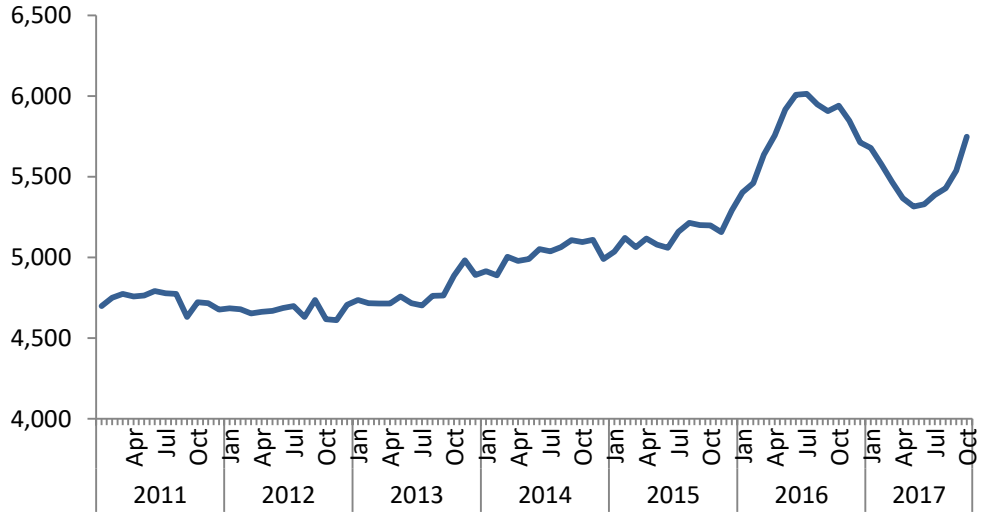
VAT, corporation tax and income tax are all expected to grow strongly reflecting *Budget 2018* forecasts for robust growth in profits, employment and consumer spending. The strong growth in

[65] Figures as per Table 9 *Budget 2018.* The *Budget 2018* package in total amounted to €1.2 billion, excluding the Lansdowne Road Agreement. €0.8 million was generated from revenue raising measures. This €1.2 billion was split between expenditure €0.8 billion and tax €0.3 billion.

"other" – as shown in Figure 3.6 – mainly reflects stamp duty receipts, which are projected to grow from €1.2 billion to €1.7 billion (40 per cent). This largely reflects the increase in the rate of stamp duty charged on non-residential property from 2 per cent to 6 per cent introduced in *Budget* 2018. The measure is expected to yield €376 million in 2018; however, there may be questions over the assumptions underpinning these estimates for the medium term (Box F).

Excise duties are forecast to grow at a slower pace (1.5 per cent) in 2018 because some front-loading of tobacco payments is expected by the Department this year. This front-loading is believed to be linked to the anticipated implementation of plain packaging for tobacco products, which came into effect on 30th September 2017.[66] Figure 3.7 suggests that an increasing trend has followed in recent months of 2017, which is expected to slow in 2018. It also suggests that a spike in excise duty was also driven by similar expectations in 2016 (ultimately the move to plain packaging did not occur as originally anticipated).

Figure 3.7: Excise Duty Revenues 2011-2017
12-month moving sum, € million



Sources: Department of Finance; and internal IFAC calculations.

Box F: Examining the Quality of Discretionary Tax Measures

Discretionary tax measures (policy-induced changes in taxation) are an important part of budgetary policy. Accurate costings of these are essential to determine the impact that policy changes have on budgetary outcomes and the Government's broader fiscal stance.

This box focuses on the quality of costings underpinning a number of discretionary measures introduced as part of *Budget 2017* and *Budget 2018*. It examines reductions in the Universal Social Charge (USC) in *Budget 2017* and several revenue-raising measures in *Budget 2018* including Capital Allowances on Intangible Assets, changes to non-residential Stamp Duties, and Compliance Measures.

[66] It is worth noting that the tobacco products that were produced before that date – which were therefore unaffected by the implementation of the plain packaging – are allowed to be marketed for a period of one year (i.e., 30th September 2018).

There are questions over the assumptions underpinning some of the costings, particularly for some revenue-raising measures introduced as part of *Budget 2018*. In particular, it is unclear whether these costings are valid over the long-run, even though estimates of yields may be accurate for the short-run. In keeping with the spirit of the new budgetary framework, permanent expenditure increases should be funded by revenue-raising measures that can be considered sustainable over the long-run. While forecasting the underlying yields and costs from discretionary revenue measures can be challenging, it is important that the assumptions behind these estimates are well-founded, and that the behavioural responses are appropriately addressed.

1. Reduced USC: *Budget 2017*

The USC was first introduced in *Budget 2011* and replaced Income and Health Levies. This was intended to increase the tax yield as well as to broaden the tax base and to simplify the taxation structure.

Several budgets have introduced changes to the USC. One such change, which was introduced in *Budget 2017,* represented a cut amounting to an estimated impact of -€335 million in the level of receipts for 2017. However, receipts to date in 2017 have been weaker than expected, even after including the expected impact of the USC cut. In particular, the provisional figures of USC receipts to end-October for the PAYE and Schedule D components point at a shortfall of €95 million relative to expectations, with net receipts amounting to €2,737 million.[67] It is not clear whether the shortfall relative to expectations for 2017 thus far is due to (i) a weakness in economic conditions, or (ii) the result of mis-estimation or other factors. Given the strong labour market data, it would seem that the latter factor is more likely to account for any shortfall. If it is a result of mis-estimation, this could be due to either a mis-specification of the elasticity to income growth or, similarly, it could be due to a mis-estimation of the impact of previous cuts to the USC.[68]

Considering the large panel of administrative data containing information on individual income changes from previous years, it might have been expected that the accuracy of estimates could have been improved at an earlier stage. Recent joint research carried out by the ESRI and the Department for Finance suggested that the USC elasticity was actually lower than initially assumed.[69] It is worth noting that the calculations of USC receipts for 2017 are based on an earlier estimate of the sensitivity to income changes of 2.15, as opposed to the adjusted one, which is estimated at a much lower 1.2. A back-casting exercise shows how forecast USC revenue might vary depending on the sensitivity (or elasticity) used. Table F1 shows that applying the updated elasticity would yield USC receipts of the PAYE component that are €85 million lower for 2017 than if the earlier estimate of elasticity was to be used.

Table F1: Projected USC (PAYE) receipts in 2017 using different elasticity estimates

€ million

	Projected USC (PAYE) Revenue 2017
Using the ESRI and DoF elasticity of 1.2	3,163
Using the earlier DoF elasticity of 2.15	3,248

Sources: Department of Finance (DoF).

[67] For 2017, the expected impact of USC reductions in *Budget 2017* was split between employees (PAYE) and self-employed (Schedule D) at €263 and €72 million, respectively. However, analysis carried out at a later stage suggested that the split should have been €311 and €24 million, respectively. PQ [23363/17] https://www.kildarestreet.com/wrans/?id=2017-05-18a.24 . While the total impact is the same (€335 million), there are important timing effects which may explain the shortfall in overall income tax (which includes USC) for the year-to-date. This reflects the fact that self-employed receipts are primarily received in November.

[68] Appendix E shows the most important factors influencing USC for *Budget 2018* forecasts.

[69] Acheson *et al* (2017).

2. Revenue-Raising Measures: *Budget 2018*

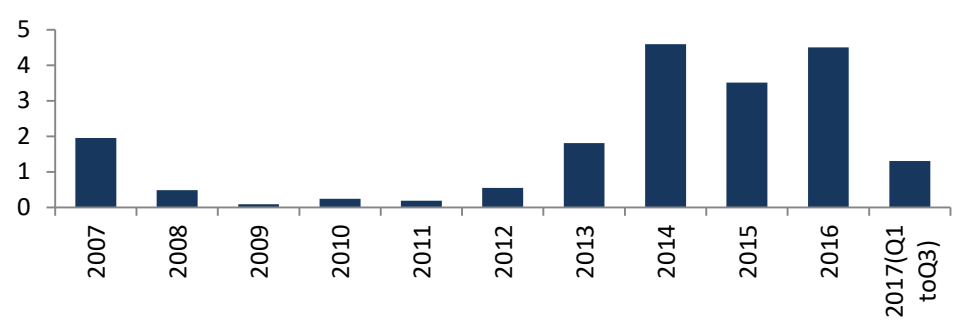
A number of questions arise in relation to the quality of several revenue-raising measures introduced in *Budget 2018*. In particular, it is worth asking whether or not the estimated yield in 2018 for stamp duty changes introduced in the Budget will be sustained over the long run.

- **Stamp Duty Rates Increase for Non-Residential Property**
  The stamp duty rate on non-residential property was increased from 2 to 6 per cent in *Budget 2018* and is estimated to bring in an additional €376 million in 2018. However, it is questionable that this measure will deliver the predicted gains for the subsequent years given that non-residential activity appears to have been higher than usual in recent years.

  A key part of forecasting the expected tax yield from a new measure is the starting point considered. However, it would appear that the assumptions underpinning the expected yield from changes to stamp duties on non-residential property introduced in *Budget 2018* were based solely on activity levels evident in 2016 and early-2017. Data from the professionals in the sector would suggest that part of the assumptions correspond to a highly exceptional period of activity that has taken place in recent years (Figure F1).[70] In addition, these activity levels may already have corrected to lower levels. Taken together, this suggests that the huge volumes of commercial property investment that took place in recent years are likely to fall to lower levels than may be assumed in budget calculations. While the *Budget 2018* forecasts may have imposed some downward judgement on forecast receipts based on actual tax collection data, this may not be enough to account for a sizeable downward correction in activity levels.

Figure F1: Irish Commercial Property Investment Turnover

€ billion



Source: CBRE Research.

- **Capital Allowances for Intangible Assets**
  Budget 2018 introduced an 80 per cent cap on the amount of capital allowances that can be used in a single year against income stemming from capital expenditure incurred on intangible assets (and other interest-related expenses). This cap, which applies for assets acquired after the day of the announcement of this measure, is estimated to generate a yield of €150 million in 2018. The estimated yield appears to be based on the expectation that the on-shoring seen in 2016 (€35 billion) and the first half of 2017 (€11 billion) will continue in 2018. The factors involving on-shoring activities are highly volatile given the nature of companies, the prediction of future behaviours and the amounts of expenditures involved, which implies that judgement plays an important role in the estimation of the expected yields.

  In any event, there may be some inconsistencies between the macro forecasts used by the

[70] KPMG; CBRE Ireland; and Savills Ireland. Savills Ireland noted that with €1.3 billion traded in investments in the first 9 months of 2017, there would be at best €2.25 billion likely to trade in 2017 as a whole, versus €4.5 billion last year.

Department and the estimated yield of this budget measure. For example, an additional yield of €150 million on corporation tax for 2018 would require – at the 12.5 per cent corporate tax rate – €1.2 billion additional taxable profits. Given that up to 80 per cent of the capital allowance and related interest expense in a tax year is deductible against any relevant income, this would imply €6 billion of gross trading profits for the calendar year.[71] The €6 billion increase in gross trading profits roughly equates to a €6 billion increase in Gross Operating Surplus, equating to a €6 billion rise in nominal GDP for 2018. However, this would appear high in the context of an overall €12.7 billion nominal GDP increase forecast by the Department for 2018 (i.e., the €6 billion increase would represent almost half of the increase in nominal GDP forecast for 2018).

In addition, there are timing-related issues that are to be considered. In particular, if the 80 per cent limit is binding, any capital allowances that could not be claimed in a given year can be claimed in subsequent years. This shows that the measure does not reduce the overall capital allowances that can be claimed on intangible assets, but simply limits the amount that can be claimed in any one year. Instead of raising additional revenues for 2018 and all subsequent years, it may merely imply a shift in timing (i.e., bringing forward the timing of receipts rather than increasing the overall amount of receipts over the lifetime of the income-producing asset).

- **Compliance Measures**
  Budget 2018 notes that "improved compliance measures" will have an impact of +€100 million on the fiscal position for 2018. This amount is to be raised in three different areas: employment PAYE; e-Commerce and online business; tax avoidance and base erosion capacity.[72] There are difficulties involved in assessing the quality of estimates underpinning additional revenues from compliance measures and such estimates tend to be discounted. An additional document published with *Budget 2018* (Walsh *et al*, 2017) outlines the higher-than-stated receipts arising from compliance measures proposed in *Budget 2016* as a way of showing the relatively conservative projections estimated in the past. Nevertheless, the Department highlights the "difficulty [in separating] the impacts of such measures with other actions taken by Revenue, behavioural changes by taxpayer and general economic activity". In any case, the methodology behind the projections used is unclear, and only year 2018 is included as part of the package, leaving aside a sound medium-term forecast.[73]

  From a methodological perspective, the inclusion of tax-raising compliance measures should be based on sound forecasting and on administrative initiatives. It is also important to apply the same forecasting discipline as for policy changes (i.e., specifying the precise initiative that is to be initiated, the resources needed to implement such measures, a realistic measure of the expected revenue outturn, including when the cash flows are to be received, etc.). Another important point is to factor in the analysis of costs that underpin the expected gains.

[71] Applying gross profit margins (i.e., the ratio between gross profits and revenues) on the assets in the range of 10 to 25 per cent requires asset purchases of between €24 billion and €60 billion.

[72] The associated cost of this measure is €7 million.

[73] As an illustrative example of a detailed compliance plan, it is worth mentioning the Australian case. Taking the Australian *Budget 2012-2013* (Australian Department of Finance, 2012) as a reference, different points should be highlighted. Overall, it contains accurate details on the investment in tax compliance and their expected returns, not only for the very short term, but also for a time horizon comprising four years. These returns are disaggregated yearly and categorised according to the proposed policy decisions. Furthermore, they provide detail on the qualitative improvements expected from such policy decisions. In addition, the Budget includes compliance threats within the risk framework, placing it as one of the highest risks for 2012-2013. In general terms, the Australian case reflects an approach to compliance that substantially differs from what is considered in Irish Budget.

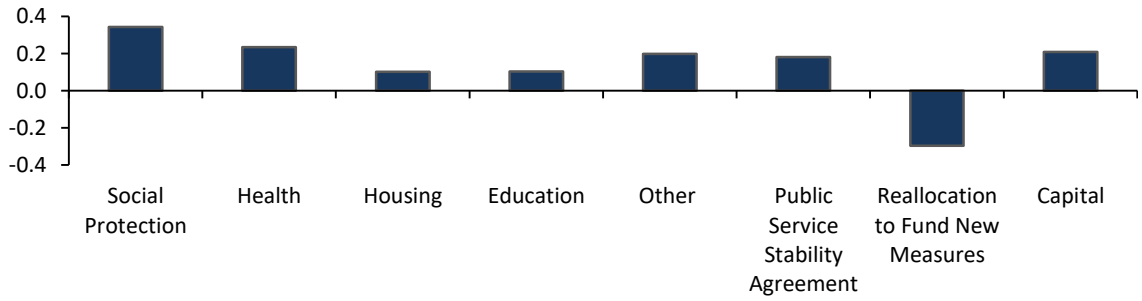
3.3.3 Expenditure 2018

Primary expenditure, excluding one-off items, is expected to grow by 4.7 per cent (€3.3 billion) in 2018. The largest increases are in compensation of employees (4 per cent, €0.8 billion), intermediate consumption (8 per cent, €0.8 billion) and gross fixed capital formation (16 per cent, €0.9 billion).

This increased expenditure includes carryover impacts of *Budget 2017* measures of €0.5 billion and the carryover impact of the original Lansdowne Road Agreement at €0.3 billion (DPER, 2017b). *Budget 2018* introduced a package of €1.1 billion of expenditure measures, with €0.9 billion allocated to current expenditure measures and an additional €0.2 billon increase in capital measures (Figure 3.8). The largest increase is in Social Protection (€0.34 billion), followed by Health at €0.24 billion.

Figure 3.8: *Budget 2018* Expenditure Measures

€ billions



Sources: Department of Public Expenditure and Reform; and internal IFAC calculations.
Note: Re-allocation to Fund New Measures refers to resources from the Department of Employment and Social Protection due to lower unemployment, live register savings and a lower-than-anticipated carryover.

A recent review of government spending (*Spending Review 2017*, Department of Public Expenditure and Reform, 2017a) switched towards a more selective focus on spending areas from the previous approach which involved a comprehensive focus on all spending areas. A list of topics was drawn up in advance to inform what areas of spending would be reviewed. It is intended that this review and subsequent reviews will cover all government spending over the course of a three-year period to 2019. The approach is hoped to bring about more detailed analysis of spending areas and to emphasise the overall efficiency of government spending rather than incremental changes such as those contained in the annual budget.

The 2017 review comprised over twenty papers (more than in previous reviews), yet most of these were undertaken by DPER and there is scope for deepening the analysis involved in the 2018 round. In particular, while there was some improvement in focus on underlying drivers in some papers, more review papers could move from analysis of past trends towards integrating strategic aims; examining in more depth the underlying drivers of expenditure; projecting realistic spending needs in future; and formulating clear recommendations for future expenditure.

3.4 Medium-Term Forecasts 2019-2021

3.4.1 General Government Balance 2019-2021

Turning to the medium term, *Budget 2018* forecasts show an improving general government balance. A deficit of 0.2 per cent of GNI* is projected in 2019, turning to a small surplus in 2020 and increasing to 1.3 per cent of GNI* in 2021 (Table 3.2). Total revenues are expected to grow in the medium term (2019-2021) at an average rate of 3.9 per cent. However, primary expenditure shows lower growth at an average of 3 per cent per annum, slowing down each year. Combined with continued relatively strong revenue growth in later years, and falling interest expenditure, this leads to the improving general government balance.

Table 3.2: General Government Forecasts 2019-2021
€ Billions

	2019	2020	2021
General government balance	-0.3	0.8	2.9
General government balance, % GNI*	-0.2	0.4	1.3
Primary balance, % GNI*	2.5	2.9	3.5
Total Revenue	81.6	84.8	88.4
Total Revenue, % growth y/y	3.6	3.9	4.3
Total Expenditure	81.9	84.0	85.5
Total Expenditure, % growth y/y	3.3	2.5	1.9
Primary Expenditure,% growth y/y	3.7	2.9	2.4

Sources: Department of Finance; and internal IFAC calculations.

These improvements in the general government balance may not be realistic, as they assume that some of the estimated available fiscal space is unused. Forecasts that do not use the estimated fiscal space available in later years (2019–2021) or do not make an explicit commitment not to use this space are not credible.[74] The previously stated Government policy was to use all available fiscal space and it may be expected that the expenditure projections will therefore increase, while revenues may be reduced due to tax cuts.[75] This would exert downward pressure on the general government balance currently planned for. Moreover, a consistent pattern of upward revisions to expenditure ceilings has been observed in recent years, which could be expected to continue (Box I in IFAC, 2017b). While a policy of using some fiscal space for allocations to the Rainy Day Fund has

[74] *Budget 2018* forecasts would appear to imply an additional unused fiscal space in 2019, 2020 and 2021 of just over €1 billion per annum, separate to the Rainy Day Fund allocations.

[75] *Budget 2017* noted that: "the medium-term fiscal projections outlined here reflect the Government's stated policy intention to use of available fiscal space". It also stated that forecasts would be updated to reflect changes in estimates of the available fiscal space: "aggregate expenditure forecasts now include the planned level of Government expenditure out to 2021…based on the current economic forecasts and the existing estimates of available fiscal space. As we move forward, the economic forecasts will vary and estimates of fiscal space will change as the relevant economic indicators used in the calculation change. As this happens, the fiscal forecasts for both revenue and expenditure will change too."

been proposed, the amounts do not actually materially impact on fiscal space (they do not represent expenditure and so do not reduce available space). Furthermore, the proposed allocations have already been scaled back (Box A, Chapter 1).

The Council welcomes the inclusion of the alternative presentation of the Exchequer position.[76] This provides useful further detail on the expected changes to revenues expected from difference sources in the medium term, rather than the previous high-level estimates. This increases transparency around the medium-term forecasts, which are an important factor for fiscal policy in the medium term.

[76] Table 10 in the Economic and Fiscal Outlook, *Budget 2018.*

3.4.2 Revenue 2019-2021

For the period 2019-2021, total general government revenues are projected to represent an average of 39.3 per cent of GNI* (Table 3.3), slightly below the 39.6 per cent expected for 2017 and 2018. This implies an average yearly growth of 3.9 per cent over the medium term, primarily driven by strong forecast receipts of current taxes on income and wealth (expected to increase by €3.4 billion over the projection horizon) and taxes on production and imports (projected to grow by €2 billion).

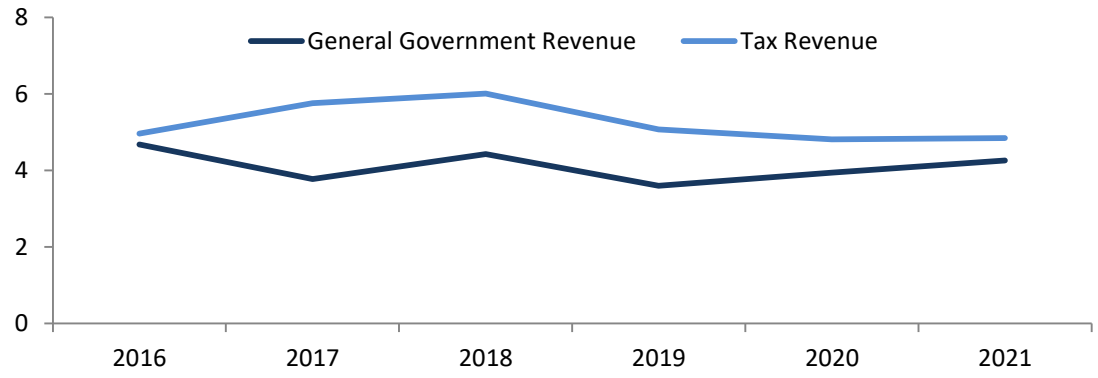
Table 3.3: General Government Revenue Forecasts 2019–2021
€ billion, unless stated otherwise

	2019	2020	2021
General Government Revenue, % GNI*	39.3	39.2	39.4
General Government Revenue, % GDP	25.9	25.8	25.9
General Government Revenue, % GNP	32.7	32.7	32.8
General Government Revenue	**81.6**	**84.8**	**88.4**
Taxes on production and imports	27.0	27.9	29.0
Current taxes on income, wealth	34.2	35.8	37.6
Capital taxes	0.4	0.4	0.4
Social Contributions	13.6	14.2	14.7
Property income	0.9	0.8	0.8
Other	5.6	5.7	5.9

Sources: Department of Finance; and internal IFAC calculations.

As illustrated in Figure 3.9, **general government revenue** is forecast to grow at a slower pace than Exchequer tax revenue. This is largely the result of the decreasing revenues from non-tax receipts and capital resources shown in Figure 3.11.

Figure 3.9: General Government and Tax Revenue Growth Forecasts
Year-on-year percentage growth



Sources: Department of Finance; and internal IFAC calculations.

Exchequer tax revenue is projected to grow year-on-year, although at slower pace than in 2018, averaging at 4.9 per cent per annum. Among the main tax heads, strong income tax, VAT and corporation tax receipts are forecast (Table 3.4).

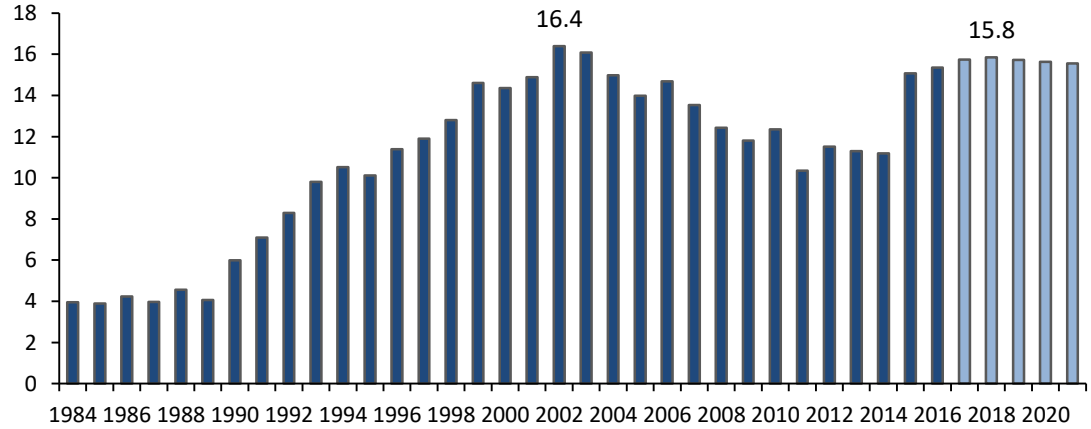
Table 3.4: Exchequer Tax Revenue Forecasts 2019-2021
€ billion

	2019	2020	2021
Tax Revenue	**56.4**	**59.1**	**62.0**
Income tax	22.5	23.7	25.1
VAT	15.0	15.8	16.6
Corporation tax	8.9	9.2	9.6
Excise duties	6.0	6.2	6.3
Other	4.0	4.2	4.4

Source: Department of Finance.

Income tax is projected to reach €25.1 billion (€4.9 billion increase since 2017) by 2021 following strong employment growth of 1.8 per cent on average. The robust consumer-spending prospects, projected to grow at 4 per cent per annum in nominal terms over this period, supports strong VAT receipts projections (amounting to €16.6 billion by 2021). The most volatile component of Exchequer tax revenue – corporation tax – is expected to yield €9.6 billion receipts in 2021 (€1.6 billion higher than the estimate for 2017). Figure 3.10 shows the evolution of the proportion of Exchequer tax revenue accounted for by corporation tax over time. Along the projection horizon, the highest point is expected to be reached in 2018, with corporation tax receipts representing 15.8 per cent of total Exchequer tax receipts. Whereas income tax and VAT estimations appear in line with growth in the macroeconomic drivers, predicting corporation tax is more difficult given the high degree of uncertainty and volatility in this tax head.

Figure 3.10: Corporation Tax Receipts as a Share of Revenues
% Total Exchequer Tax Receipts

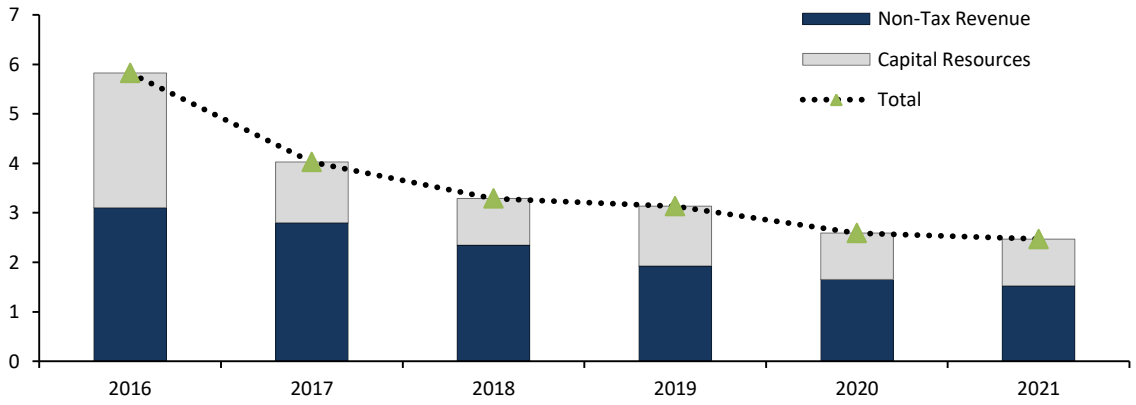


Sources: Department of Finance; and internal IFAC calculations.

The key factors influencing the forecasts of tax revenue over the medium term (2018-2021) are shown in Appendix D. Revenue growth is largely driven by the expected performance of macro drivers for all tax heads, especially PAYE. In addition, there is a downward policy impact for USC and PAYE expected as a result of discretionary revenue-reducing measures. One-off items will have a positive impact over 2019-2021, especially for VAT receipts, and to a lesser extent, for excise duties and corporation tax.

In terms of **non-tax revenue**, the yield is expected to decrease over the 2019-2021 period, as shown in Figure 3.11, with projected yields being reduced by €400 million over this period. The explanation behind these trends arises from the assumption of lower Central Bank surplus income, as compared to 2018 (when the Central Bank surplus is projected to increase due to realised gains arising from the disposal of the Government's floating rate notes).[77] **Capital resources** are projected to decrease from €1.2 billion in 2019 to approximately €0.9 billion in 2020 and 2021 (Figure 3.11). As compared to previous years, when capital resources were boosted through financial transactions related to the State's investments in the financial sector, the projections show lower financial transactions related to the State's support to the financial sector following recent sales. [78] Although there remain some assets which the State may sell, these have not been included in the forecasts given that a decision on disposal has yet to be made, as noted in the Fiscal Risk Matrix (Table 3.7). However, if these assets were to be sold, revenues from this source would increase. It is worth noting that, although capital resources are relevant in terms of debt analysis, they are neutral from a deficit perspective.

Figure 3.11: Non-Tax Revenue and Capital Resources
€ billion



Sources: Department of Finance; and internal IFAC calculations.
Note: Capital Resources for 2017 excludes the sale of AIB shares for €3,433 million.

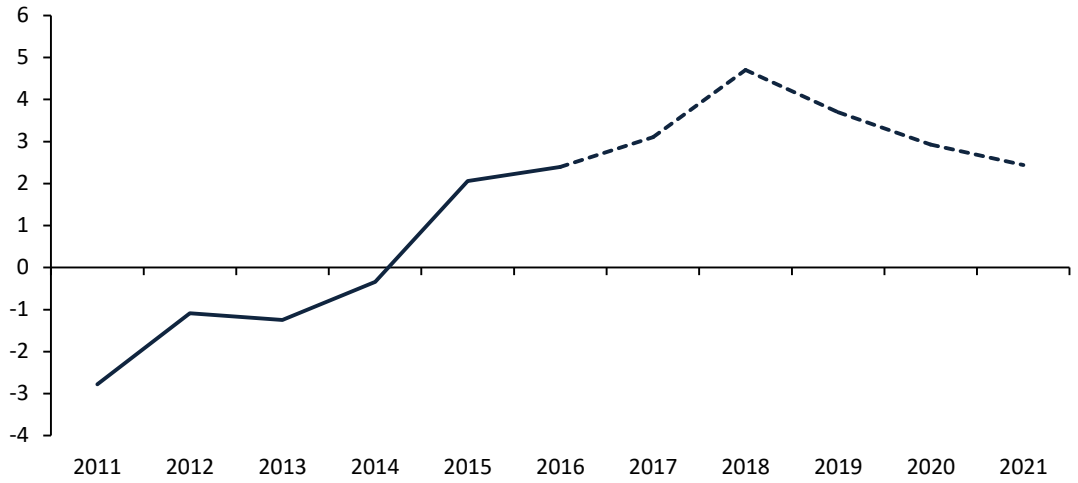
[77] It is assumed that the floating rate notes issued to recapitalise IBRC will be sold according to the minimum disposal timeline. This change would be neutral in the general government accounts although it would have an impact on Exchequer liquidity.

[78] See Barnes and Smyth (2013) for an analysis of the Government's balance sheet, including an illustrative example on the winding-up of IBRC.

3.4.3 Expenditure 2019-2021

Expenditure is forecast in *Budget 2018* to increase over the medium term at a moderate pace, and to be consistent with over-compliance with the fiscal rules (Chapter 4). General government primary expenditure began to rise after 2014 and is projected to continue to grow at an average 3 per cent per annum over the medium term (2019-2021), but slowing in later years (Figure 3.12).[79] This represents a fall, as a share of GNI*, from 36.8 per cent in 2019 to 35.8 per cent in 2021 (Table 3.5).

Figure 3.12: 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 relate to those identified by the Council as applicable.

Table 3.5: General Government Expenditure Forecasts (2019-2021)
Percentage growth year-on-year, unless stated otherwise

	2019	2020	2021
General Government Expenditure	**3.3**	**2.5**	**1.9**
Primary Expenditure	**3.7**	**2.9**	**2.4**
Primary Expenditure, % of GNI*	**36.8**	**36.4**	**35.8**
Compensation of Employees	2.5	2.1	2.2
Intermediate Consumption	1.1	1.5	0.0
Social Payments	0.7	1.6	1.7
Interest Expenditure	-1.5	-3.1	-6.5
Subsidies	2.4	0.3	-1.2
Gross Fixed Capital Formation	18.8	5.0	2.5
Capital Transfers	11.8	2.8	-0.7
Other	1.0	1.8	0.8
Resources to be Allocated (€ billions)	0.5	1.2	1.9

Sources: Department of Finance; and internal IFAC calculations.
Note: Primary Expenditure equals total expenditure less interest repayments on government debt.

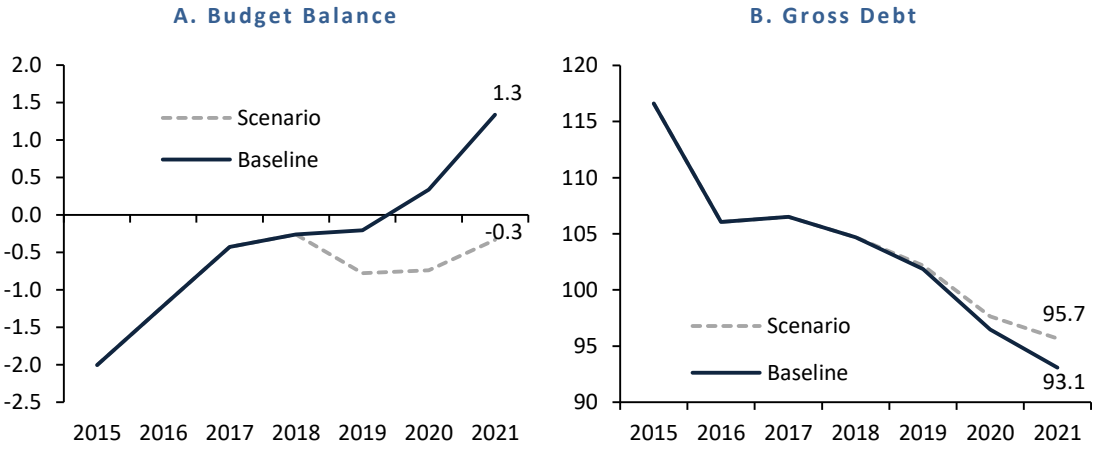
[79] Stripping out expenditure in relation to interest payments and excluding one-off expenditure items. One-offs relate to those identified by the Council as applicable.

The expected fall in primary expenditure growth reflects slower growth across almost all components (Table 3.5).[80] The only component forecast to grow at a relatively steady rate is compensation of employees (rising by 2.2 per cent per annum on average). Capital spending (Gross Fixed Capital Formation) growth is forecast to moderate after reaching comparatively high ratios of GNI*, revenue and primary expenditure (Box G). Growth in intermediate consumption spending is forecast to be zero in 2021.This forecast, given expected inflation of 1.9 per cent, may not be especially realistic. Although, some €3.6 billion still remains to be allocated within the general government expenditure forecast, so some of this may be allocated to intermediate consumption. This decrease in the growth of expenditure on intermediate consumption and overall expenditure growth coincides with a substantial improvement in the general government balance to 1.3 per cent of GNI* in 2021, an increase of 0.9 percentage points from the projected surplus in 2020.

Spending Scenario Under Minimum Compliance

If the unallocated fiscal space in the years 2019–2021 were to be used, then the forecast debt level would be €7 billion higher (2½ percentage points of GNI*) by 2021, and the government's budget balance would remain in deficit.[81] Figure 3.13 highlights this scenario using the Council's Fiscal Feedbacks model. Whereas the budget deficit rises to a surplus 1.3 per cent of GNI* in 2021 in the *Budget 2018* baseline plans, the full use of fiscal space would imply a continued deficit of 0.3 per cent of GNI* as of 2021. This would imply a slower path for debt reduction for subsequent years.

Figure 3.13: Full Use of Fiscal Space Scenario (2019–2021)
Percentage of GNI*, general government basis



Sources: Department of Finance; and internal IFAC calculations.
Note: The grey dashed line shows the path of the general government balance and general government debt (both as a percentage of GNI*) assuming the estimated fiscal space available under the spending rule (Expenditure Benchmark) for later years as estimated in Budget 2018 is used.

[80] The largest areas of growth include gross fixed capital formation and compensation of employees following the Public Service Stability Agreement, increasing by €1.7 billion and €1.5 billion respectively.

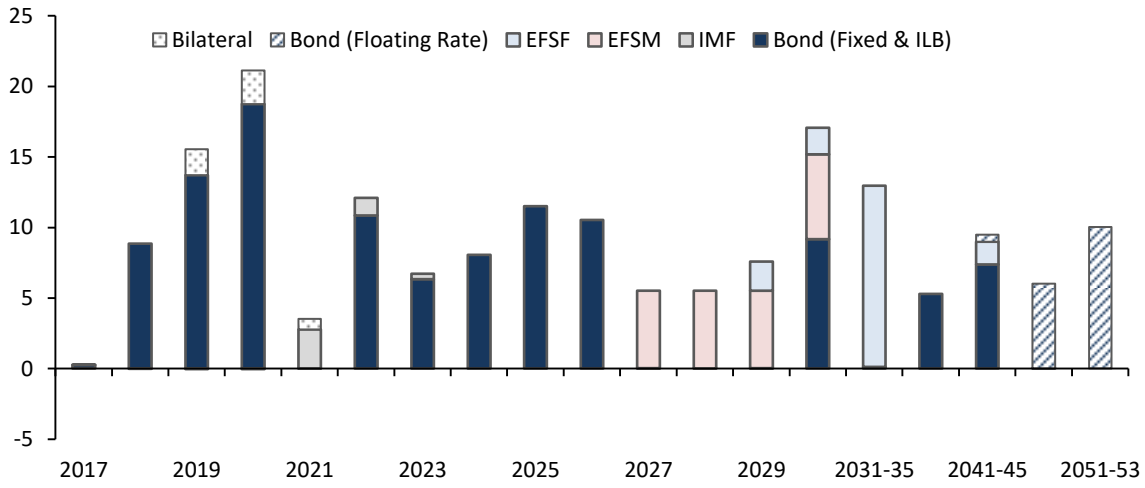
[81] *Budget 2018* forecasts would appear to imply an additional unused fiscal space in 2019, 2020 and 2021 of just over €1 billion per annum, separate to the Rainy Day Fund allocations.

Interest Expenditure

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 3.14 shows the National Treasury Management Agency (NTMA) maturity profile of Ireland's long-term and marketable debt as at October 2017.[82]

Figure 3.14: Maturity Profile of Ireland's Long-Term Marketable and Official Debt as at October 2017

€ billions

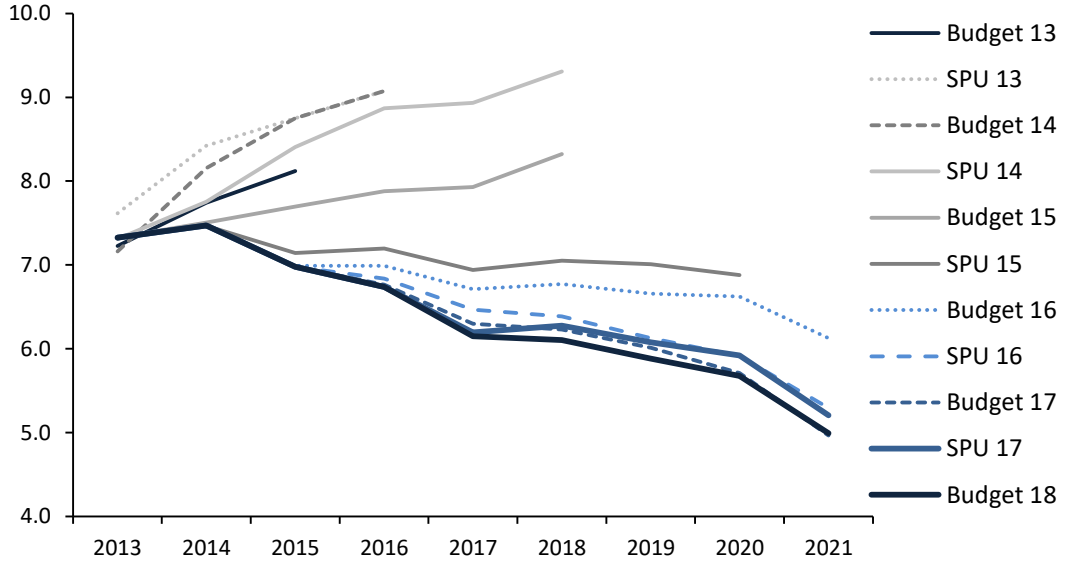


Source: NTMA.
Note: Data are adjusted to provide an indicative profile given the seven-year extension of the EFSM loans, to bring the weighted average maturity from 12.5 years to 19.5 years. Ireland is not expected to refinance these loans before 2027. Therefore, the indicative maturity of the EFSM loans has been placed in the years 2027-2031, but may be subject to change. Data are those for end September, adjusted for redemption of bonds on 19 October 2017.

Interest costs on government debt have declined in recent years and this is projected to continue over the forecast period (2018-2021). Figure 3.15 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. *Budget 2018* has once again seen a fall in expected interest rates over the forecast period (2018-2021).

[82] 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 3.15: National Debt Cash Interest Projections
€ Billions



Sources: Department of Finance; and internal IFAC calculations.

Interest-rate shocks pose less of a risk to the public finances following recent maturity extensions and interest-rate reductions. With high debt levels, however, there are still risks that self-reinforcing fears in bond markets might take hold; and although there are substantial maturities to be rolled over during 2018-2020. However, such risks are mitigated somewhat by substantial Exchequer cash buffers maintained by the NTMA. 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.

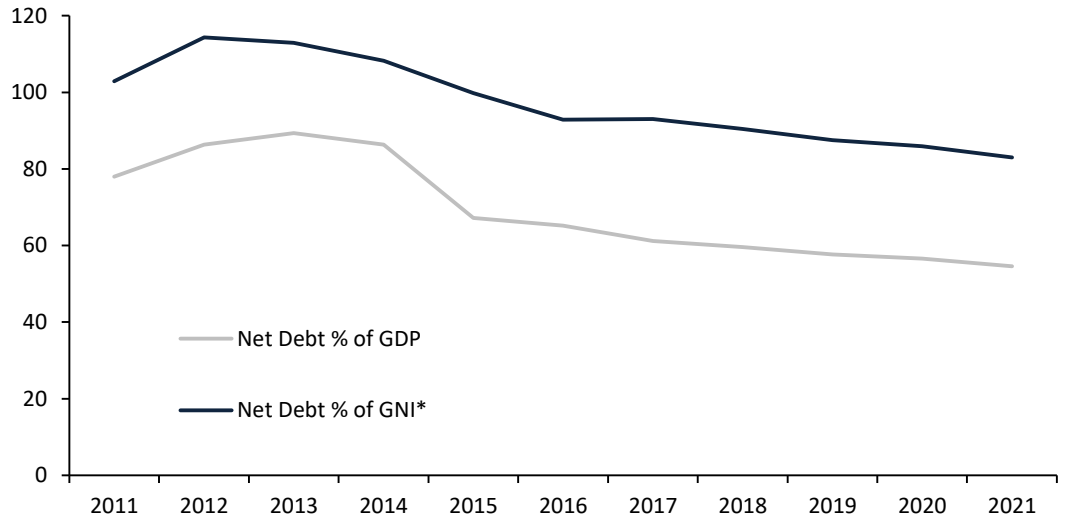
General Government Debt

Figure 3.16 shows the evolution of general government debt as planned in *Budget 2018.* The debt-to-GDP ratio has fallen rapidly since 2012, but this is due in large part to the distorted 2015 growth rate (the GDP revision leading to a difference of 19.2 per cent in the gross debt-to-GDP ratio) and the liquidation of the IBRC, which led to lower liabilities being measured on the government's balance sheet (in 2011 this lead to increased liabilities of €20.9 billion; stripping out these liabilities, gross debt-to-GDP ratio would have been on average 4 per cent lower annually). The Government is planning to target a debt-to-GDP ratio of 55 per cent (Chapter 1).

Using the more informative alternative ratio of net debt-to-GNI*, it can be seen that the government debt burden has fallen at a more moderate pace since 2012 and is expected to fall to 93 per cent in 2017. The government debt burden is expected to still remain high in the medium term by international and historical standards (see Box H).

Figure 3.16: General Government Debt

Per cent



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Data for the period 2017-2021 are projections as per *Budget 2018.*

The Stand-Still Scenario for Expenditure

The Council views an estimate of the cost of maintaining today's level of public services and benefits in real terms in future years 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 provides an example of such an exercise.

The Stand-Still approach is an illustrative exercise and should not be seen as an alternative expenditure forecast to that outlined in *Budget 2018*. 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 automatic or semi-automatic indexation. Instead, the scenario provides information as an input into the policy decision process through which the ultimate expenditure forecasts are produced. 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.

The Council sees the Stand-Still approach as a useful basis for forecasting and is not suggesting the adoption of indexation of any kind; however, indexation has been proposed as an option for pensions by the Government. At the *National Economic Dialogue* in June 2017 it was indicated that the government would like to "to index increases in the state of pension to the cost of living as an automatic minimum increase every year so that the real value and purchasing power is

protected".[83] Increasing the state pension in line with the Budget forecasts of inflation would lead to an additional increase in expenditure of €0.4 billion over the period 2017-2021 solely due to increases in cost of living. This is a crude estimate given current inflation forecasts and does not include any potential increase to other age-related payments such as the living alone allowance. Should inflation forecasts increase, or should other age-related payments be included, the cost of such a policy approach could be considerably higher.

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 FAR* (IFAC, 2016b), though in the case of health expenditure it should be noted that a similar approach to that of the Department of Public Expenditure and Reform's estimates of demographic pressures is now built into the model. To estimate demographic pressures on health spending, the age-related costs associated with acute services, Primary Care Reimbursement Service (PCRS), Nursing Home Support Scheme (NHSS) and older persons' services are modelled separately. The model uses detailed data from the Hospital In-Patient Enquiry Scheme (HIPE) to produce estimates of expenditure pressures. Pay rates are expected to rise in line with the Public Service Stability Agreement (2018–2020).

Table 3.6 provides a comparison between the fiscal space allocated to current expenditure (including pre-committed amounts) implicit in *Budget 2018* and the Council's Stand-Still scenario for current expenditure.

[83] Available at: https://www.taoiseach.gov.ie/eng/News/Taoiseach's_Speeches/Speech_by_the_Taoiseach_Mr_Leo_Varadkar_TD_at_the_Opening_of_the_National_Economic_Dialogue_Wednesday_28_June_2017.html

Table 3.6 Comparison of Estimated Stand-Still Current Expenditure and Allocated Fiscal Space

€ billion (increases unless stated)

	2019	2020	2021	Total (2019-2021)
Gross Voted Current Spending Increase - IFAC Stand-Still (A)	1.31	1.46	1.76	4.53
of which: Demographics	0.54	0.61	0.64	1.79
Prices	0.77	0.85	1.11	2.74
Budget 2018 Pre-Committed Gross Voted Current Expenditure (B)	0.90	0.82	0.71	2.43
of which: Demographics	0.49	0.48	0.48	1.45
Public Service Stability Agreement	0.37	0.34	0.23	0.94
Other	0.04	0.00	0.00	0.04
Amount of Net Fiscal Space Needed to Stand-Still C=(A-B)	0.41	0.64	1.05	2.10
Net Fiscal Space Allocated to Current Expenditure (*Budget 2018*/*SES 2017*) (D)	0.95	1.02	0.98	2.95
Difference Between Net Fiscal Space Needed to Stand-Still and Net Fiscal Space Allocated to Current Expenditure Increases E=(D-C)	0.54	0.38	-0.07	0.85

Sources: Department of Finance; Department of Public Expenditure and Reform, 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 2017, a cohort component demographics model and the latest macroeconomic and inflation forecasts from *Budget 2018*. (B) *Budget 2018* pre-committed spending takes the demographics and pre-committed spending figures as in *Budget 2018*. The net fiscal space allocated to current expenditure (D) takes the fiscal space as outlined in *SES 2017*.

The IFAC Stand-Still scenario shows the estimated increases in current spending if demographic pressures were fully accommodated and if spending moved in line with the inflation forecasts in *Budget 2018* by the Department of Finance. In this scenario, gross voted current spending would increase by €4.5 billion over the period 2019-2021.

For the same period (2019-2021), the Government has pre-committed €2.4 billion for the cost of: (i) public sector pay arrangements under the Public Service Stability Agreement (2018-2020); (ii) some estimated demographic pressures; and (iii) covering other pre-committed spending measures.[84]

Comparing total pre-committed expenditure increases (before any indicative allocations of fiscal space are considered) with the Stand-Still estimates implies that €2.1 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. *Budget 2018* indicatively allocates some €3 billion of fiscal space to current spending over the same period (2019-2021). This implies – in the absence of policy changes, or changes to the macroeconomic spending drivers – the fiscal space currently budgeted for expenditure increases in 2019-2021 would fully accommodate estimated demographic pressures and the cost of maintaining real public services and benefits.

[84] This related to a pre-committed EU programme funding covered under the Rural Development Fund.

Budgetary plans can be made more robust if they are founded on a better understanding of the drivers of expenditure and how these 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 approach would provide a useful guide for future spending pressures. If combined with detailed spending reviews, it could provide a valuable input to future medium-term expenditure forecasts and improve the basis on which achieving fiscal aims is assessed.

Investment Expenditure

Investment expenditure is expected to increase substantially over the forecast period (2018-2021), with additional resources which had previously been indicated for the Rainy Day Fund now allocated to capital expenditure. Gross fixed capital formation is projected to grow at an average annual rate of 10.6 per cent out to 2021. Following a period of reduced public investment growth, Ireland will move from relatively low levels of public investment to levels that are among the highest in the EU. Box G discusses plans for public investment spending.

Box G: Plans for Public Investment Spending

This box looks at the Government's plans for public investment spending. Public investment is set to ramp up quite rapidly to levels among the highest in the EU in coming years, while still complying with the fiscal rules. The Government has also indicated that a value of 3 per cent of an appropriate measure of national income (e.g., GNI*) might be considered a reasonable target for the long-term level of public capital spending for Ireland. A target of this form would be a sensible approach to ensuring that investment spending is sustained over the course of the cycle. If adhered to, this approach could help to prevent forced cuts to public investment in downturns and excessive investment expansions in booms.

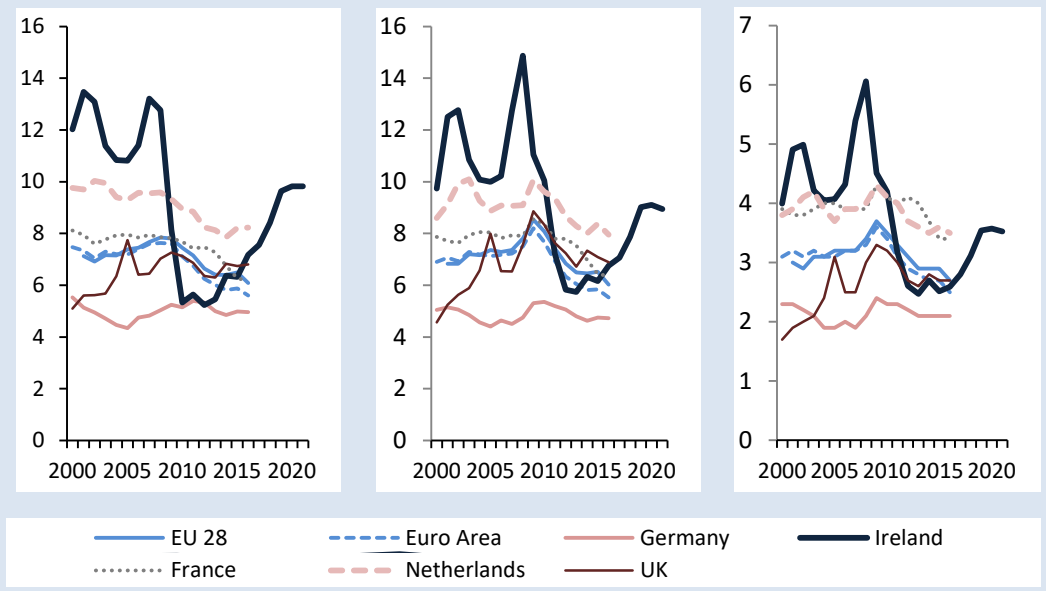
Concerns have been expressed at the manner in which high public investment levels in Ireland were reduced to very low levels as the public finances underwent a sharp correction in recent years. However, *Budget 2018* plans show that annual public investment levels in Ireland will move from relatively low levels to levels that will be among the highest in the EU in a relatively short period of time.

Figure G1 shows the evolution of public investment in Ireland since 2000. Investment levels are shown as a share of (A) total government primary expenditure (i.e., total spending excluding interest costs); (B) total government revenue; and (C) GDP (with GNI* used for Ireland). On each measure, the procyclical nature of investment spending is evident. During the early 2000s and up to the end of the property/credit bubble period, investment spending was far above levels in other EU Member States, such as Germany and the UK. Efforts during the downturn to correct a large deficit then saw capital spending approximately halved.

Having been scaled back to a low base, public investment levels are expected to ramp up quite rapidly again, rising to levels that are among the highest in the EU under current plans. For instance, by 2021, public investment is planned to rise to 9.8 per cent of primary spending; 8.9 per cent of total revenue; and 3.5 per cent of GNI*. Across all measures, this would be higher than present levels for countries such as France, the Netherlands, Germany and the UK as well as for the EU and Euro Area aggregates. Importantly, this is possible while still complying with the fiscal rules in later years.

Figure G1: Annual Public Investment Spending

Percentage of respective denominator, general government basis



Sources: Eurostat; CSO; Department of Finance (*Budget 2018*); and internal IFAC calculations.

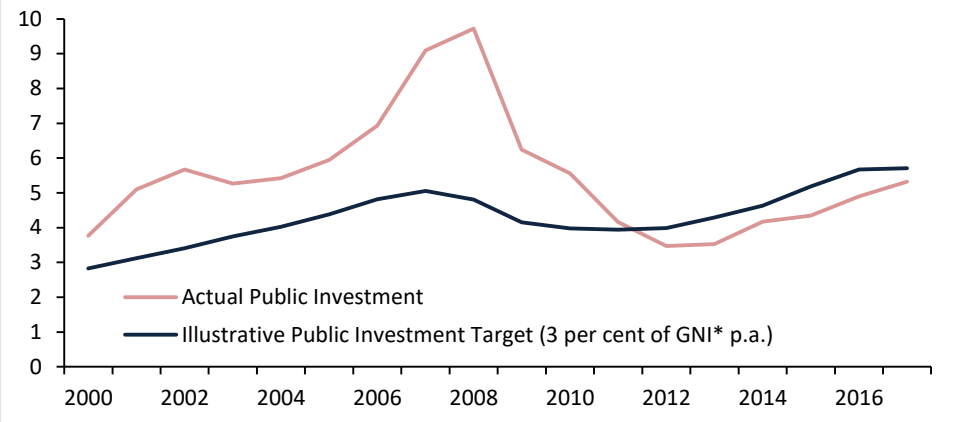
With public investment levels set to return to relatively high levels soon, efforts should be made to prevent this category of spending from following a procyclical pattern yet again in future years. The *Review of the Capital Plan 2016–2021* (Department of Public Expenditure and Reform, 2017c) notes that a value of 3 per cent of an "appropriate measure of national income" might be considered an appropriate target for the long-term level of public capital spending for Ireland. This is informed by the fact that Irish public investment levels averaged approximately 3 per cent of GNI* over the period 1995–2015 – a level similar to the EU-15 average over the same time.

A commitment to stick to a specified level of public investment as a share of GNI* would be a sensible basis for fiscal policy over the medium term.[85] If adhered to, this approach could help to prevent forced cuts to public investment in downturns and excessive expansions in investment during booms.

If a targeted level of public investment had been followed in the previous boom–bust cycle, this would have limited the procyclical increases in investment levels observed during the mid-2000s. It would also have helped to prevent the sharp cuts to investment observed in the subsequent downturn and recovery. Figure G2 illustrates how a 3 per cent of GNI* target for public investment might have operated over the period 2000-2017 if adhered to. As shown, levels of investment would have been lower than actually observed in the pre-crisis period, and higher in the post-crisis period. The cumulative gap between targeted investment and actual investment would have been of the order of €3.7 billion in the 2012-2017 period (though endogeneity of the path for GNI* is clearly an issue here). Smoothing government investment spending can also help to provide greater certainty regarding future infrastructure projects. This, in turn, can help to make technology investments in the sector more viable, thus driving productivity gains.

[85] One argument in favour of targeting of this sort is set out by Portes and Wren Lewis (2015), for example. The argument follows that an optimal way to prevent public investment being squeezed in times of austerity is to have an explicit public investment target as a share of some measure of overall economic activity. Such a target could also operate well in the context of a system of fiscal rules that includes targets for the overall deficit (or structural deficit as in the *SGP*).

Figure G2: Illustrative Public Investment Path
Gross fixed capital formation (€ billions), general government basis



Sources: CSO; Department of Finance (*Budget 2018*); and internal IFAC calculations.

Much of the domestic debate concerning the need for additional investment has focused on the benefits of this to the productive capacity of the economy. However, not all public investment will necessarily boost the productive capacity of the economy and there is an inevitable trade-off with debt sustainability considerations especially when public debt is already high.

Public investment has been shown to have, on average, a more positive impact on economic growth than other types of government spending (Bénétrix and Lane, 2009; Hall, 2010). Benefits may also be more pronounced when there is economic slack, and when monetary conditions are more accommodative (Abiad *et al,* 2015). Debt sustainability concerns can reduce the capacity to pursue this without negatively impacting on creditworthiness. Furthermore, due to the open nature of the Irish economy, net leakages of income have been shown to lessen the positive effects of fiscal policy over the medium term (Cronin and McQuinn, 2014). Estimates using the ESRI's large-scale HERMES macroeconomic model suggest that a €1 billion increase in government investment can lead to an increase in real GDP of 0.1 per cent in the long run (Bergin *et al*, 2009).

While public investment can lead to positive economic gains, all public investment projects should still be assessed rigorously. In particular, evaluations should assess the quality of the investment proposed, its efficiency and the method of financing intended. Warner (2014) finds that the impact of investment on long-term economic activity can be limited where project appraisal, selection and management procedures are weak. This is one of the areas identified in the recent IMF *Public Investment Management Assessment* of Ireland (IMF, 2017) as in need of improvement in Ireland.

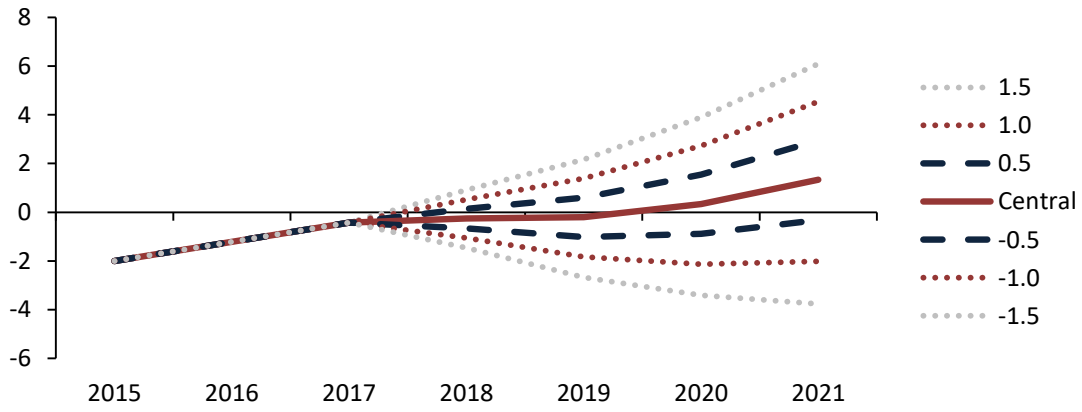
The short- and long-term fiscal and macroeconomic impacts of any investments should also be considered. In particular, plans should be cautious of aggravating boom–bust cycles.

3.5 Risks

While Budget 2018 has seen improvements in both the macroeconomic and fiscal outlook, substantial risks to the public finances remain. As shown in Figures 3.17 and 3.18, a shock to GNI* growth of 1.5 percentage points relative to Budget 2018 forecasts each year during 2018 to 2021 would result in the general government balance being over 4 percentage points of GNI* 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 they rise to a surplus of 1.3 per cent of GNI*. 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.

Figure 3.17: General government balance Paths

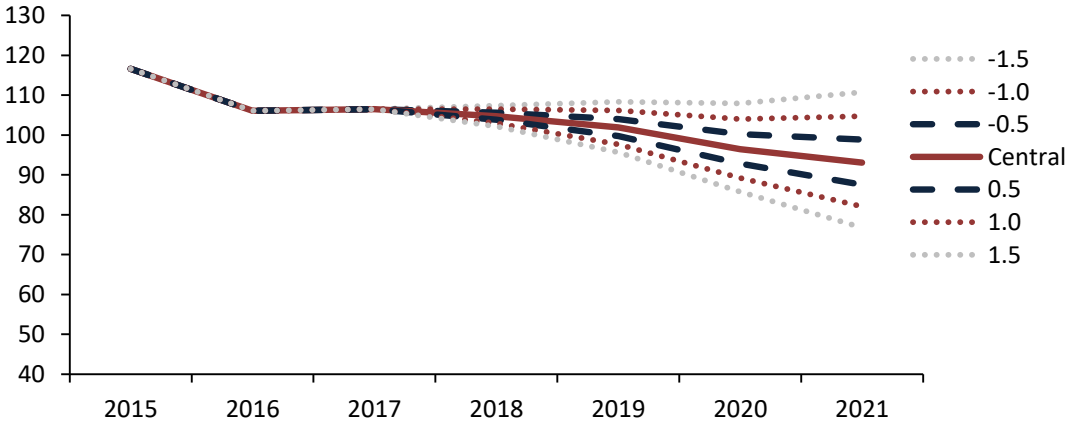
% GNI*



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 *Budget 2018* forecast under different shocks to growth in each year. The solid red line ("Central") corresponds to the latest official forecast.

Figure 3.18: Gross Debt Paths

% GNI*, 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.

Box H: Ireland's Public Debt Burden

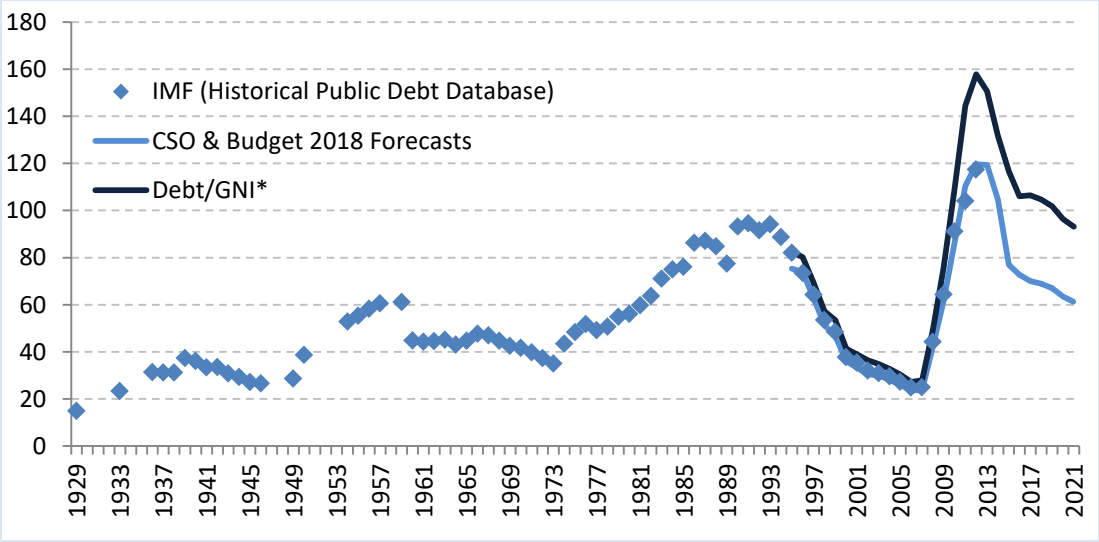
This box examines Ireland's nominal GDP growth and the interest costs associated with public debt: two of the key drivers of debt dynamics. The international and historical experiences of selected EU countries provide context for assessing the future path of public debt. The high volatility of nominal GDP growth and the effective interest rate on public debt in Ireland suggest that a prudent debt target would be lower than that of other larger economies.

Irish Government Debt in Historical Terms

Taking a long-term perspective on Ireland's public debt burden reveals three periods where debt has risen above the *SGP* limit of 60 per cent of GDP (Figure H1). During the 1950s, the balance of payments crisis was a contributing factor; in the late 1970s during a period of investment a shock occurred due to the oil crisis, although the fiscal position improved in the late 1980s, the early 1990s saw a deterioration in the fiscal position due to external demand conditions, especially in the UK; while the most recent collapse in the late 2000s followed the bursting of the property/credit bubble, and saw losses in cyclical and property-related revenues while costly banking-sector support measures were also incurred. When scaled against an appropriate measure of national income, debt is currently higher than at any period in the history of the State. Government plans suggest a steady pace of reduction in coming years, though debt forecasts remain above 90 per cent of GNI* by 2021.

Figure H1: Long-Run Perspective on Ireland's Debt Ratio

Gross debt as share of GDP and GNI*



Sources: CSO, IMF and Department of Finance.
Note: IMF Historical Public Debt Database begins in 1929. For 2017-2021, *Budget 2018* forecasts are used.

Relative Volatility of Irish Debt Dynamics

Central to how debt levels evolve are three factors: growth (g_t); the average interest costs on debt (i_t) and the primary (i.e., non-interest) budget balance that a government runs (PB_t). These factors when coupled with existing debt levels (D_{t-1}) plus any other "stock-flow" (SF_t) changes that take place[86] will drive the evolution of Irish debt levels in coming years. The role of these factors can be elaborated using the standard "debt snowball" equation:

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

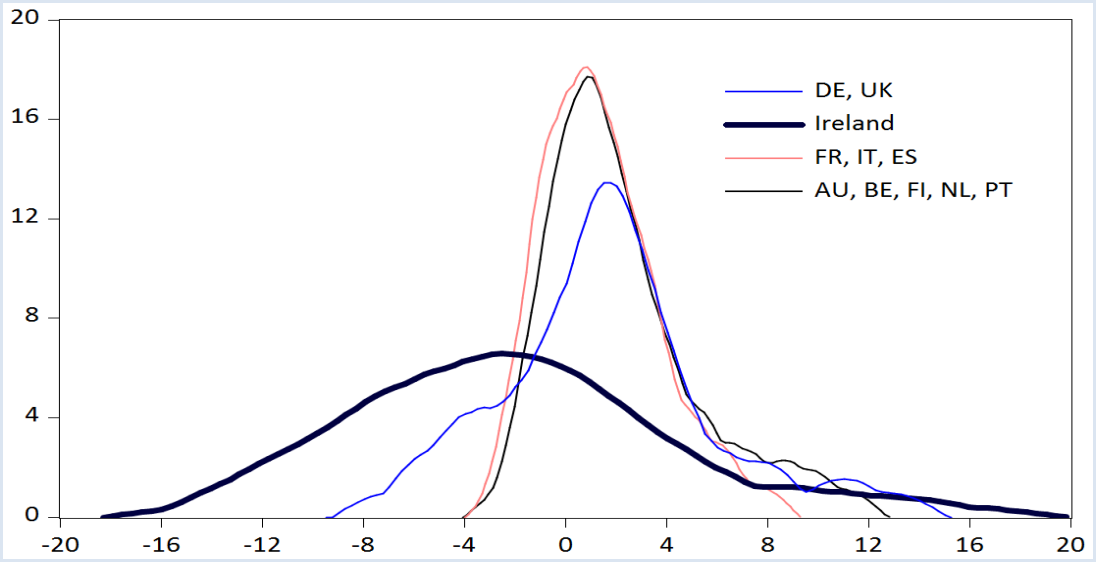
[86] Examples include changes in holdings of debt-corresponding assets, fluctuations in domestic-currency values of foreign-currency funding, and asset disposals that reduce gross debt.

While the primary balance run by a government is a key consideration, it is worth examining the dynamics that are (to a larger extent) outside of its control. The interest-growth differential ($i_t - g_t$) can be analysed in order to understand how debt levels might evolve in future.

Figure H2 shows distributions of the interest-growth differentials for Ireland and selected other European countries for 1991-2016. A differential below (above) zero is more (less) favourable. Ireland's distribution is shown to be more favourable on average compared to other countries in the sample. Looking ahead with *Budget 2018* forecasts for 2017-2021, these measures remain in the favourable area of the distribution – that is, below zero – ranging between -1.6 and -2 percentage points and averaging -1.7 percentage points. The average sits at around the 60th percentile of outturns, approximately 1.3 percentage points above the median of -3 percentage points.

Figure H2: Ireland's Debt Dynamics: More Favourable, But More Volatile

Interest-growth differentials in Ireland and selected European countries, frequency



Sources: Eurostat; IMF; OECD; CSO; and Department of Finance (*Budget 2018* forecasts).
Note: Annual data, 1991-2016 (to 2021 for Ireland). A differential below (above) zero is more (less) favourable. DE Germany, FR France, IT Italy, ES Spain, AU Austria, BE Belgium, FI Finland, NL Netherlands, PT Portugal.

An important factor to consider is that Ireland enjoyed strong convergence growth during the sample period, particularly during the 1990s and early 2000s. Moreover, the volatility of this measure of debt dynamics has been much greater for Ireland, as witnessed by the wider base of the distribution (this remains the case with the extremely favourable outlier observation for 2015 of –31 percentage points excluded from the analysis). Table H1 below shows the inter-quartile range of the various countries included in the sample, for which Ireland's is the widest at nearly 8 percentage points. While the distributions elsewhere in Europe are less favourable on average, their variability is much lower – the average of their ranges is 3.5 percentage points.

Table H1: Ireland's Broad Historical Range of Debt Dynamics

Inter-Quartile Range of Interest-Growth Differentials

	AU	BE	DE	ES	FI	FR	IRL	IT	NL	PT	UK
25th Percentile	0.3	0.4	-1.3	-2.4	-0.7	0.2	**-6.6**	1.2	-0.4	-0.3	-1.9
75th Percentile	2.4	4.8	3.1	3.4	2.4	2.1	**1.3**	3.6	3.9	2.7	1.9
Range	2.2	4.4	4.4	5.8	3.1	1.9	**7.9**	2.4	4.4	2.9	3.9

Sources: Eurostat; IMF; OECD; and CSO.
Note: Annual data, 1991–2016.

An Appropriate Debt Ceiling for Ireland

On balance, the potential may be limited for Ireland's interest-growth differentials to continue as favourably in future as they have been in recent decades. While 94 per cent of end-2016 gross debt was financed at fixed interest rates (C&AG, 2017), risks to economic growth remain manifold (as discussed in Section 2.4). Indeed, debt rollovers may become costlier for the Irish Government if global long-term interest rates rise faster than currently anticipated, in particular as the ECB and central banks worldwide withdraw monetary stimulus measures.

These substantive downside risks over the medium term may add to the challenge of gradually reducing debt to safer levels. As analysed by the Council in Box A of the previous *FAR* (IFAC, 2017b), a 45 per cent debt-to-GDP ratio should not necessarily be considered a low or prudent debt burden. Rather, the ratio needs to be considered alongside a number of other factors, including long-term spending pressures for areas such as health and pensions. The greater volatility of Irish interest-growth differentials, in combination with the elevated debt-to-GNI* ratios forecast to 2021, suggest a prudent ceiling for Ireland's public debt should be below 45 per cent of GDP.

Table 3.7 (below) shows the fiscal risks identified in *Budget 2018* along with the Department of Finance's assessments of relative likelihoods and impacts. The Council provides an assessment of each of the risks, and three additional risks, as assessed by the Council, have also been added to the table.

Table 3.7: Assessing *Budget 2018* Fiscal Risk Matrix

	Likelihood	Impact	IFAC Assessment
EU Climate Change Targets	H	H	Ireland is unlikely to meet its 2020 emissions targets without purchasing more allowances, which could mean a cost of between €60 million and €120 million to the State. In the longer term (based on estimates to 2030 from Curtin, 2016), a failure to meet later targets in emissions and renewables could lead to additional costs in the region of €2.7 to €5.5 billion. This suggests for the forecast horizon, a high probability and relatively lower impact is appropriate.
Budgetary Pressures	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. Repeated in year spending increases may create expectations which add to these pressures. As outlined in Box I of the *June 2017 Fiscal Assessment Report* expenditure ceilings have been subject to frequent revisions, weakening their role as an incentive for expenditure management by departments (IFAC, 2017b). The addition of in-year spending measures exacerbates this problem.
Unanticipated Compositional Effects of a "Hard Brexit" (IFAC Risk)	M	H	The central scenario in *Budget 2018* is for a hard Brexit, but there is a risk that the impacts of a hard Brexit on the public finances could be starker than is estimated (i.e., over and above traditional impacts and the direct effects on the EU budget contribution and bond market risk premia). Unemployment impacts are modelled as similar to those for a regular trading partner, but the UK export market tends to attract more labour-intensive industries (e.g., tourism, agri-foods). This could mean greater pressures on unemployment expenditure compared to a standard trading partner demand shock. VAT receipts could be more negatively impacted given the relatively lower average incomes in these sectors, though incomes taxes less so.
Corporation Tax Concentration Risks	H	M	The volatility and concentration of Corporation Tax receipts continues to be a source of potential fiscal risk. Given the scale of volatility in this tax head, there is a high degree of uncertainty around the future trajectory of revenue growth. 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". 2016 net receipts were €7.4 billion, with 37 per cent of this related to the Top Ten payers (€2.8 billion). Uncertainty about future US economic and fiscal policy adds to this risk, in addition to risks around tax policy in the EU and the UK. This would suggest that the associated risks could have a relatively higher impact.
EU Renewable Energy Targets	H	M	Ireland is currently falling short of its 2020 renewable energy target (to have 16 per cent of Gross Final Energy Consumption supplied by renewable power in 2020) by 2-3 percentage points and is unlikely to meet the target. Curtin (2016) estimates a cost to the Exchequer of between €168 and €490 million for a shortfall of 1.2-3.5 per cent. As noted above a failure to meet later targets in both emissions and renewable could lead to additional costs in the region of €2.7 to €5.5 billion. Therefore, in the medium term, an assessment of high probability with medium impact may be deemed more appropriate.
Sharper-Than-Expected Activity Growth in Tax Rich Sectors (IFAC Risk)	M	M	The pace of growth of activity in the construction sector may also have unintended impacts on the economy. If supply were to rapidly increase to meet any pent-up demand, there could be a substantial upswing in revenues from this source, considering the tax-rich nature of housing output.
Reliance on Transient Revenues (IFAC Risk)	M	M	A shift to a reliance on transactions-based taxes such as stamp duties could – if repeated – reduce the stability of tax revenues. Such revenues can prove transient/cyclical. If they are used to support long-lasting expenditure measures, pressures could fall on other resources in times when these revenues are lower.

	Likelihood	Impact	IFAC Assessment
Changes to Tax 'Drivers'	M	M	Changes to the macroeconomic tax drivers, which are used for tax forecasting, may have considerable 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, receipts and estimates of the impact of discretionary measures. Updating the USC elasticity to 1.2 gives a decrease of €85 million in estimated PAYE-related USC revenue in comparison to when the old elasticity is used.
Tax Forecast and Payment Timeline Asymmetry	M	M	Both the estimation of revenue forecasts and the impact of tax changes remain a risk to fiscal policy. Timing in relation to certain tax receipts can lead to variation throughout the year. Another concern is posed in the estimation of the cost of tax measures. Although there is a risk of underestimation of the impacts of tax cuts, there is also a risk that estimated yields accruing from revenue-raising measures may be overly optimistic (Box F).
Litigation Risk	M	M	This risk refers to an adverse or unexpected outcome of litigation against the State, which leads to increased expenditure. This could lead to pressure on expenditure projections should it occur. The IMF (2016) note that, although infrequent, legal cases can pose large fiscal risk, with average compensation of some 8 per cent of GDP and up to 15 per cent in extreme cases. [87] Applying this to GNI*, would imply litigation costs in the region of €15 billion to €29 billion.
EU Budget Contribution	M	M	Should national income grow more than expected the EU budget contribution will increase. GDP increased by €67.5 billion in 2015 following the revision of GDP growth from 7.8 to 26.3 per cent in July 2016 due to distortions from foreign-owned multinational enterprises and the on-shoring of intellectual property products. Ireland's EU budget contribution increased by an average of €98 million from 2014 to 2016, with an increase of €344 million in 2016. 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 does not consider this as likely to have a substantial impact on the public finances.
Dividend Payments	L	M	The Budget identifies risks in relation to the lower-than-expected payment of bank dividends to the State. These are a function of ongoing business performance and outlook, and 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.
Receipts from Resolution of Financial Sector Crisis	L	M	The Budget does not 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. At end 2016 ISIF total bank investments in AIB and Bank of Ireland amounted to €12.7 billion. Based on current share prices, the State's holdings in PTSB would appear to be valued at below €1 billion. These represent an upside risk to the baseline scenario, which will depend on prevailing market conditions at the time of sale.
Contingent Liabilities	L	M	While declining, contingent liabilities remain a risk to public finances should any associated amounts suddenly have to be met with increased expenditure. Contingent liabilities have fallen by 93 per cent since 2011 to a level of €10.3 billion in 2016, with guarantees falling from 105.6 per cent of GNI* in 2011 to 2.8 per cent of GNI* in 2016.
Bond Market Conditions	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. The proportion of gross national debt at fixed interest rates for end-June 2017 was at 94 per cent (C&AG, 2017), while *Budget 2018* estimates 2018 funding requirements of c.€11 billion, in the absence reduced cash balances. However, at high debt levels, risks remain 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 *Budget 2018*: H= High; M = Medium; L = Low.

[87] Although these averages were affected by compensation payments for currency deposits frozen in many Central and Eastern European countries after the collapse of the Soviet Union and the former Yugoslavia.

4. Assessment of Compliance with Fiscal Rules

Key Messages

- The Medium-Term Objective (MTO) for the public finances is expected to be achieved in 2018, based on forecasts contained in *Budget 2018*. The current MTO targets a structural deficit – that is, a budget deficit corrected for one-off items and the impact of the business cycle – of 0.5 per cent of GDP. While breaches in required progress towards the MTO are estimated for 2016–2017, the expected change in the structural balance exactly meets the requirement for 2018.

- Much of the improvement in the structural balance for 2018 is due to a large decline in the output gap as measured by the EU Commonly Agreed Methodology (CAM). While such a fall in the output gap appears implausible, the level of the CAM output gap for Ireland in 2018, at 0.7 per cent of estimated potential GDP, does appear broadly reasonable. As such, the MTO's achievement next year would reflect a budget that is broadly in balance.

- *Budget 2018* forecasts suggest non-compliance with the Expenditure Benchmark, with forecast spending 0.1 per cent of GDP (€0.4 billion) in breach of the two-year average for 2017 and 2018. This second pillar of the fiscal rules is designed to ensure spending growth remains anchored to growth in medium-term potential output and revenue. However, the European Commission's estimates of policy-induced revenue increases, which can be used to offset higher spending under the rule, are far lower across 2017 and 2018 than those indicated in *Budget 2018*. Assessing compliance with the rule using the Commission's data would show considerably larger estimated breaches.

- The Council recommends following all fiscal rules beyond the MTO's forecast achievement. In advance of the MTO's achievement, this chapter investigates the adjustments to 2018 expenditure plans that would ensure full compliance. Reducing expenditure by €0.7 billion in 2018 would mean compliance with the Expenditure Benchmark on a two-year basis. A re-allocation of €1 billion from current to capital expenditure would also achieve compliance without any reduction in total spending, owing to provisions for smoothing of investment spending contained in the fiscal rules.

- As Ireland's budgetary framework continues to evolve, better adherence to the Medium-Term Expenditure Framework would strengthen efforts to ensure sound economic and fiscal management. Meanwhile, issues regarding the proposed Rainy Day Fund's impact on assessment of the fiscal rules require further investigation and more dialogue at the European level.

4.1 Introduction

The Council's key functions include assessment of compliance with the domestic Budgetary Rule (legislated for in the 2012 *Fiscal Responsibility Act*) and its equivalents at EU level (under the *Stability and Growth Pact* (*SGP*)), and assessment of the fiscal stance. With the Excessive Deficit Procedure (EDP) having been closed in 2015, on achievement of a general government deficit below 3 per cent of Gross Domestic Product (GDP), Ireland exited the Corrective Arm of the *SGP* and entered its Preventive Arm in 2016.[88] This chapter examines the consistency of the projections contained in *Budget 2018* with requirements under the Preventive Arm of the *SGP*. In particular, these requirements relate to measuring annual progress towards a Medium-Term (Budgetary) Objective (MTO), and ensuring that plans for expenditure growth are made on a basis that is sustainable.[89]

Section 4.2 provides a review of the *ex-post* assessment of compliance for 2016 contained in last May's *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule for 2016* (IFAC, 2017a), followed by a brief discussion of some technical aspects of the Council's assessment of compliance with the fiscal rules in Box I. New estimates for the in-year assessment of compliance in 2017 are then discussed in Section 4.3. Forecasts contained in *Budget 2018* are the basis for *ex-ante* assessments of compliance for 2018–2021, detailed in Section 4.4; the focus of this assessment falls on 2018 given that the policies have been established in the recent Budget. Further analysis of Ireland's budgetary framework concludes the chapter in Section 4.5.

The chapter includes reference to some of the EU Commonly Agreed Methodology's (CAM) many shortcomings in terms of estimating potential growth and the output gap for Ireland (see also Boxes B and E). The discussion also employs scenario analysis to estimate the required adjustment to expenditure plans that would ensure full compliance with the Expenditure Benchmark for a two-year assessment of 2017–2018. While transitional arrangements for the Debt Rule are currently applicable, its normal requirements will not come into effect until 2019 (once three years have passed since the EDP's closing), and forecasts for 2020 and 2021 indicate compliance.

[88] Although the fiscal rules are assessed with respect to GDP, in accordance with legal requirements of the relevant legislation, the Council believes other aggregates such as modified gross national income (GNI*) represent more appropriate indicators of the Irish economy (see Chapters 1 and 2).

[89] The MTO for Ireland over 2017-2019 is a target currently set at 0.5 per cent of GDP for the structural deficit – that is, the budget deficit adjusted for one-off items and the impact of the economic cycle.

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

	Code	2015	2016	2017	2018	2019	2020	2021
Corrective Arm:								
General Government Balance net of One-Off Items	GGBn	-1.3	-0.8	-0.3	-0.2	-0.1	0.2	0.8
General Government Debt	GGD	76.9	72.8	70.1	69.0	67.1	63.5	61.2
1/20th Debt Rule (Backward/Forward-looking Benchmark)		109.0	95.7	81.9	71.9	69.5	67.8	65.8
Preventive Arm & Domestic Budgetary Rule:								
Pillar I. Structural Balance Adjustment Requirement								
CAM Structural Balance	SB	-2.0	-1.7	-1.1	-0.5	0.2	0.4	0.9
Actual/Planned Change in CAM Structural Balance (p.p.)	**ΔSB**	**1.8**	**0.3**	**0.6**	**0.58**	**0.7**	**0.3**	**0.5**
Minimum Change in Structural Balance Required (p.p.)	**REQ**	**-**	**0.6**	**0.6**	**0.58**	**0.0**	**0.0**	**0.0**
1yr Deviation (€bn) …negative = non-compliance		-	-0.7	0.0	0.0	-	-	-
1yr Deviation (p.p.) …negative = non-compliance		-	-0.28	0.01	0.00	-	-	-
2yr Deviation (€bn) …negative = non-compliance		-	-	-0.4	0.0	-	-	-
2yr Deviation (p.p.) …negative = non-compliance		-	-	-0.14	0.00	-	-	-
Pillar II. Expenditure Benchmark								
Reference Rate of Potential Growth (% y/y)	R	-	1.9	3.3	3.4	3.8	3.9	3.9
Convergence Margin (p.p.)	C	-	1.8	2.0	2.3	0.0	0.0	0.0
Limit on Real Expenditure Growth (% y/y) = R_t - C_t	**EB**	**-**	**0.1**	**1.2**	**1.1**	**3.8**	**3.9**	**3.9**
Actual/Planned Real Expenditure Growth (% y/y)	**er**	**5.8**	**-1.2**	**2.2**	**1.2**	**1.6**	**1.9**	**1.6**
1yr Deviation (€bn) …positive = non-compliance		-	-0.9	0.6	0.1	-	-	-
1yr Deviation (% GDP) …positive = non-compliance		-	-0.33	0.22	0.02	-	-	-
2yr Deviation (€bn) …positive = non-compliance		-	-	-0.1	0.4	-	-	-
2yr Deviation (% GDP) …positive = non-compliance		-	-	-0.06	0.12	-	-	-
Nominal spending increase permitted before DRMs*	**EB€**	-	1.2	1.6	1.7	3.6	3.9	4.2
Actual/Planned spending increases before DRMs* (€bn)	**er€**	-	0.3	2.3	1.7	2.1	2.3	2.4
Current Macroeconomic Aggregates								
Real GDP Growth (% y/y)	y	25.6	5.1	4.3	3.5	3.2	2.8	2.6
CAM Potential GDP Growth (% y/y)	y^*	4.2	5.6	4.5	4.5	4.4	3.6	3.1
CAM Output Gap (% of Potential GDP)	OG	2.2	1.7	1.6	0.7	-0.5	-0.4	-0.2
GDP Deflator Applicable (% y/y)	p	0.9	1.7	1.2	1.3	1.1	1.3	1.5

*Discretionary Revenue Measures

Sources: *Budget 2018*, European Commission *Spring 2017* forecasts and internal IFAC calculations.

Note: The assessments above cover the key parts of the fiscal rules under the *SGP*'s Preventive Arm and the domestic Budgetary Rule. It is based on fiscal plans and macroeconomic forecasts included in *Budget 2018*. One-off items may differ with those of the Department of Finance as the estimates above reflect the Council's views on what are applicable or valid as one-off/temporary measures. The only one-off items stripped out of the Expenditure Benchmark are those that have been identified since December 2016 (this reflects the timing of changes in how the rules are applied). Potential output is derived using estimates based on the EU Commonly Agreed Methodology (CAM). The outlier for "CAM Potential GDP Growth" for 2015 is replaced by the average of the 2014 and 2016 rates, as discussed in the June 2017 *FAR*. European Commission estimates of reference rates, convergence margins, GDP deflators and minimum adjustments in the structural balance are applicable for Preventive Arm requirements. These are frozen based on each year's preceding Commission *Spring* forecast for years up to 2018. Figures relevant to the 2016 assessment (i.e. in both 2015 and 2016) are frozen based on the Council's May 2017 Ex-Post Assessment of Compliance with the Domestic Budgetary Rule for 2016. As such, there are differences between some CAM-based estimates, deflators and deviations shown in Table 4.1 and those published in *Budget 2018* (see Box I).

If a €2.1 billion one-off expenditure item in 2015 (relating to the conversion of AIB Preference Shares into Ordinary Shares, classified as government expenditure by the CSO) were excluded from the Expenditure Benchmark calculations, the "Actual/Planned Real Expenditure Growth Rate" for 2015 would have been 2.9 per cent and 2.5 per cent in 2016, which would have resulted in an Expenditure Benchmark breach of 0.6 per cent of GDP (€1.6 billion) in 2016.

4.2 Review of *Ex-Post* Assessment for 2016

This section provides a review of the Council's May 2017 *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule for 2016*. Figures relating to the structural balance presented in *Budget 2018* reflect new estimates for 2016 of the CAM-based output gap and potential growth. An improvement is shown in *Budget 2018* for the change in the structural balance – however, the legal assessment of rule adherence is based on the fact that the European Commission's *Spring 2017* (European Commission, 2017b) estimates, which are used for EU assessments, are frozen for 2016. Box I describes the freezing approach and other technical aspects of the Council's assessment of compliance with the fiscal rules.

As described in Box H of the June 2017 *FAR* (IFAC, 2017b), revenue and expenditure classified by the Council as one-off is excluded from published general government data when assessing compliance with the fiscal rules. The Department of Finance's treatment of one-off items for 2016 is now in line with the assessments of the Council and the Commission.

4.2.1 MTO and Structural Balance Adjustment Requirements

The 2017–2019 MTO for Ireland was set by the Commission targeting a structural balance of -0.5 per cent of GDP. For this first pillar of the fiscal rules, the requirement for 2016 was for an improvement in the structural balance of 0.6 of a percentage point. Figure 4.1 shows the latest Commission estimates (*Spring 2017* forecasts) indicate a breach in the rule in 2016.[90]

The estimated breaches assessed by the Commission in their *Spring 2017* publication are now frozen – that is, the estimates for 2016 will not be re-estimated by the Commission when assessing compliance 2017 next spring. Consequently, any breaches that have been assessed as having occurred cannot be revised away by statistical vagaries or re-classifications.[91]

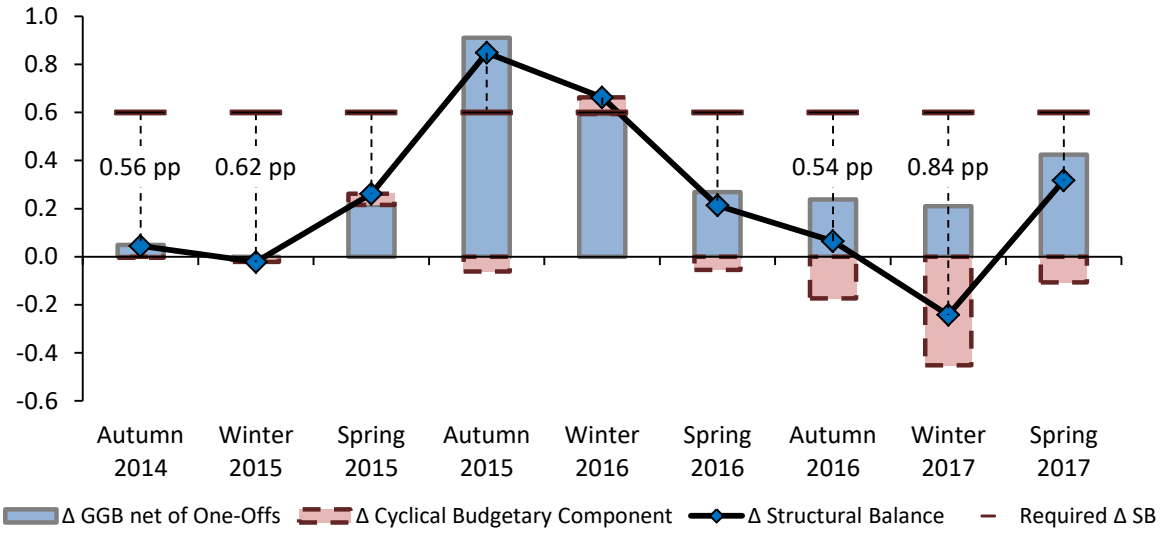
As described in Box I, the Council's approach is similar to that of the Commission, and a description of the Council's assessment is included in the May 2017 publication, *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule in 2016*.

[90] Although more recent estimates are available as part of the Commission's *Autumn 2017* forecasts, these are not relevant to the 2016 assessment, as the estimates of relevant figures in the Commission's *Spring 2017* forecasts have been frozen.

[91] The structural balance for Ireland is equal to the ratio of the general government balance net of one-off items to GDP, less the cyclical budgetary component – the product of a semi-elasticity parameter (equal to 0.5275) and the output gap. The semi-elasticity parameter intends to capture the sensitivity of the budget balance to the economic cycle. According to Box 1.4 of the *Vade Mecum* (EC, 2017), the EU average is 0.5 with a range of 0.31-0.65.

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

Components of Change (Δ) in the CAM Structural Balance (% GDP)



Sources: European Commission (forecast vintages); Department of Finance (*Budget 2018*); and internal IFAC calculations.
Notes: *Budget 2018* applies updated estimates for 2015 and 2016 of the structural balance's components, in particularly the output gap, whereas the Commission's *Spring 2017* forecasts have been frozen.
The Cyclical Budgetary Component is estimated as: 0.5275 * output gap, where the output gap is estimated using the Commonly Agreed Methodology. Significant deviations (greater than 0.5 percentage points) are shown above.

4.2.2 Expenditure Benchmark

Results for the second pillar of the fiscal rules, the Expenditure Benchmark, are shown in Table 4.1 above. The figures reveal compliance in 2016, with a margin of 0.33 per cent of GDP (€0.9 billion).[92] This outcome hinges on the inclusion of a €2.1 billion one-off expenditure item related to an AIB share transaction as part of aggregate public expenditure in 2015. Details of this transaction have been discussed in previous Council publications, including the June 2017 *FAR*. Were it not for this factor's inclusion, there would have been a significant deviation under the Expenditure Benchmark in 2016 of 0.6 per cent of GDP (€1.6 billion). The Council assesses that the one-off item should not have been used as an artificial means of permanently increasing expenditure in 2016. As discussed in *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule for 2016*, it is clear that the Government availed of this additional space despite its source being inherently transitory.

[92] Consistent with the treatment of the Structural Balance rule, Table 4.1 reflects the frozen assessment of the Expenditure Benchmark for 2016 (discussed in Section 4.2.1).

Box I: The Council's Assessment of the Preventive Arm

This box briefly discusses three technical aspects of the Council's assessment of compliance with the fiscal rules. These are (i) *ex-post* assessments of compliance, (ii) one-off items, and (iii) discretionary revenue measures (DRMs). The treatment of these items and differences compared to the corresponding treatment of the Department of Finance and the European Commission are summarised in Table I1 below.

Table I1: Treatment of *Ex-Post* Assessments, One-Off Items and DRMs

	IFAC	European Commission	Department of Finance
Ex-Post Assessments of Compliance – currently 2016	Frozen based on the IFAC *ex-post* assessment[93], with one-off items not excluded from the Expenditure Benchmark	Frozen based on Commission (*Spring 2017*) forecasts	The Department use latest estimates as opposed to freezing past deviations for the Expenditure Benchmark
One-off items	Assessed by IFAC and excluded from the Expenditure Benchmark for items identified since Dec 2016	Assessed by the Commission and systematically excluded from the Expenditure Benchmark (for all years)	Assessed by the Department, excluded from the Expenditure Benchmark for items identified since Dec 2016
Discretionary Revenue Measures	IFAC Assessment of Department *(Budget 2018*) estimates	Commission (*Autumn 2017*) estimates	Department *(Budget 2018*) estimates

Sources: IFAC, European Commission and Department of Finance.

(i) *Ex-Post* Assessment of Compliance

The Council's approach to *ex-post* assessments of compliance follows that used by the Commission in freezing the assessed level of compliance made in spring for the previous year. As a result, revisions to historical data for 2015 and 2016 that would affect any estimated breaches for 2016 will not be reflected in assessments of 2017 and 2018 compliance. The Department's estimates are slightly different in that they use updated estimates of the 2016 deviation for the Expenditure Benchmark rule in 2016 (*SES 2017* included €0.8 billion of over-compliance compared with €0.9 billion according to *Budget 2018*).

While the required adjustment in the structural balance may unfreeze in certain circumstances, in general the freezing of historical figures adds a degree of stability to the process of meeting fiscal targets.[94] A key advantage of the approach is that deviations that have been assessed as having occurred cannot be revised away by statistical vagaries or reclassifications. Given the variability inherent to estimates of the Irish economy, achieving fiscal targets due to a "moved-goalposts" effect should not necessarily be deemed adherence to the rules; equally, failing to achieve fiscal targets on a similar basis should not result in penalties.

[93] The Council's ex-post assessment for 2016 is presented in *Ex-Post Assessment of Compliance with the Domestic Budgetary Rule for 2016* (IFAC, 2017a), based on the CSO's *Government Finance Statistics* outturns published in April 2017, Department forecasts published in SPU 2017 and using the Commission's *Spring 2017* estimate of the output gap. Council figures are similar to those in the Commission's *Spring 2017* publication. An exception is for assessment of the Expenditure Benchmark (with one-off items not excluded) owing to differences in the Commission's estimate of 2016 DRMs, which was €0.4 billion higher than the Department's estimate of -€0.8 billion; i.e., the Department's estimate of the negative impact of discretionary tax-reducing measures was double the size of the Commission's estimate. For further discussion on the quality of estimates for DRMs, see Box F.

[94] The most recent update to the Commission's *Vade Mecum* (European Commission, 2017a) describes two criteria for unfreezing, including "very bad or exceptionally bad economic times, measured as an output gap below -3 [per cent] of potential output", and revisions to a structural balance wherein a Member State's "delivery on its original [structural-balance adjustment] requirement would imply an over-achievement of its MTO".

(ii) One-off items

The Council assesses one-off items submitted for consideration by the Department in accordance with five Commission criteria outlined in Box H of the June 2017 *FAR*, and determines which of the items are applicable. This is an important process in that it affects compliance with the fiscal rules, and provides improved understanding of the underlying fiscal position. The Council's treatment of one-off items for assessment of the Expenditure Benchmark is effectively the same as that of the Department, wherein such items are excluded for 2017 onwards. This treatment differs from that of the Commission, reflecting the most recent update to the *Vade Mecum* (European Commission, 2017a) in systematically excluding one-off items for all years.

(iii) Discretionary Revenue Measures

In assessing compliance with the Expenditure Benchmark, the Council makes an assessment of the DRMs based on the information contained in the *Budget*; in practice, DRM estimates applied by the Council have been very similar indeed and often identical to those contained in the *Budget*. Meanwhile, the Commission uses its own estimates of DRMs and applies a different treatment to certain DRM components, in particular regarding the non-indexation of income-tax bands and carryover of previous years' measures.[95] The Commission's estimates have occasionally differed from those of the Department. In particular, the Department's estimates of total DRMs in *Budget 2018* were -€0.8 billion for 2016, €0.0 billion for 2017 and +€1.0 billion for 2018; the corresponding Commission figures were -€0.4 billion, -€1.0 billion and +€0.2 billion, respectively.

4.3 In-Year Assessment for 2017

Analysis based on the latest data implies a breach in the Expenditure Benchmark for 2017. A new presentation for assessing compliance with the Expenditure Benchmark is then examined, in which one-off expenditure and revenue items are excluded from calculations of the real expenditure growth rate. This approach is applied to one-off items identified after December 2016. Although the Expenditure Benchmark continues to register a breach for 2017, the technically compliant outcome in 2016 described in the previous section means there is no deviation for the two-year average of 2016–2017. However, the breach in 2017 risks becoming a significant deviation when applying the Commission's discretionary revenue measures (DRMs) estimates.

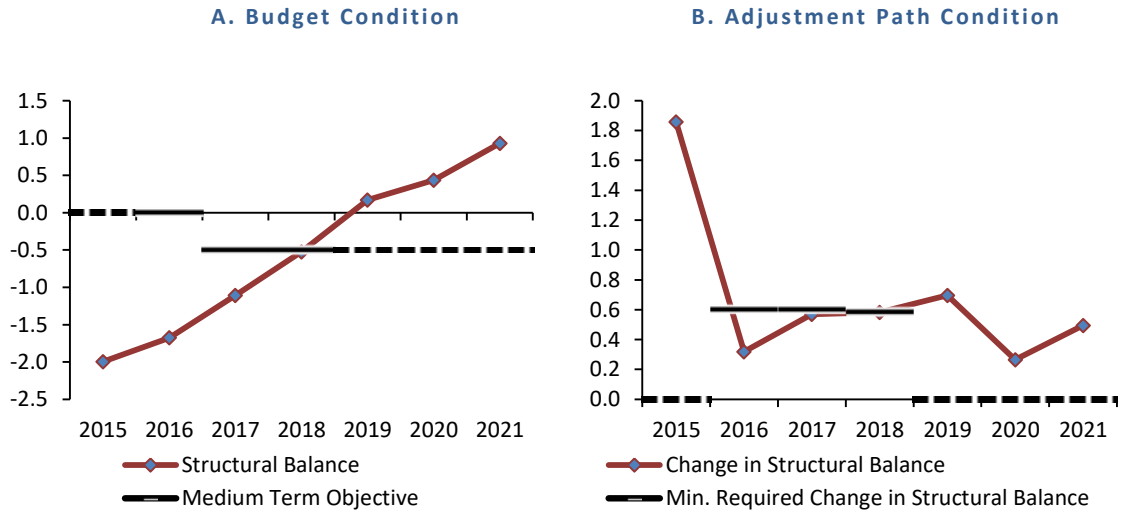
4.3.1 MTO and the Structural Balance Adjustment Requirements

The CAM-based structural balance is expected to narrow to a deficit of 1.1 per cent of GDP in 2017, an improvement of 0.6 of a percentage point (as shown in the two panels of Figure 4.2). This would show full compliance with the adjustment path condition for the structural balance. The majority of this improvement is due to an increase of 0.5 of a percentage point of GDP in the general

[95] Correspondence with the Commission indicates that non-indexation of income-tax bands would be taken into account in the event of an overall assessment.

government balance excluding one-off items, which is forecast to reach a deficit of 0.3 per cent of GDP in 2017.[96]

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



Sources: Budget 2018; and internal IFAC calculations.
Note: The minimum MTO for Ireland was revised to a structural balance of -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 indicate conditions that are not yet determined (Panel A), but are not expected to apply once the MTO has been reached (Panel B).

At the time of the *June 2017 FAR*, there was a smaller forecast change in the 2017 structural balance at +0.2 of a percentage point. One reason behind the difference is that the forecast for nominal GDP in 2017 was lower than that contained in *Budget 2018*. Another factor is that the last *FAR*'s estimate of the CAM output gap for 2017 was lower by 0.2 of a percentage point.

In the latest CAM estimates for 2017, the positive output gap narrows by 0.1 of a percentage point compared to 2016. As discussed further in Box B, the CAM may not provide a satisfactory measurement of the output gap for Ireland, and its measurements may exhibit procyclical tendencies. A positive output gap above 1.5 per cent for Ireland is unlikely to be realistic at present, with limited wage pressure and a still-recovering labour market. Furthermore, the direction of the change implies cooling in the economy, which is also unlikely to be realistic at present (Chapter 1). A more realistic estimate might resemble a negative output gap that is closing, with the change in the CAM output gap instead bearing a positive sign, which would be less helpful for achieving compliance with a required improvement in the structural balance. A more negative output gap could also imply that the MTO has already been met or overachieved.

[96] The estimate of the general government deficit in 2016 was revised down. This explains the fiscal balance's higher contribution to the change in the structural balance in 2017. The frozen estimates for 2016 are based on the April release's deficit of €1.5 billion, whereas Budget 2018's uses the October release's estimated deficit of €1.9 billion.

4.3.2 Expenditure Benchmark

Assessment of the Expenditure Benchmark for 2017 shows a forecast breach of 0.2 per cent of GDP (€0.6 billion). The two-year assessment for the average of 2016 and 2017 shows expected compliance. However, if the Council's assessment applied the Commission's estimated DRMs for 2017, this would result in breach of the Expenditure Benchmark that could risk incurring sanctions at EU level. As discussed in Box I, substantial differences may arise between the Department's estimates of DRMs and those of the Commission, mainly as a result of differences in treatment of non-indexation of income-tax bands and carryover impacts from previous years' measures. In particular for 2017, the Department's estimate of DRMs for 2017 is €0.0 billion while the Commission puts this figure at –€1.0 billion. This implies a revenue-neutral estimate of the measures contained in *Budget 2017* by the Department, compared to a sizeable revenue-reducing estimate by the Commission.

More generally, assessment of the Expenditure Benchmark for both 2016 and 2017 has been complicated by an update to the rule's application provided by the Commission concerning the impact of one-off items. This change was agreed upon in December 2016 and formalised in the *Vade Mecum* (European Commission, 2017a). These events occurred after plans for Ireland's fiscal policy in 2017 had been set down in *Budget 2017* (published in October 2016). Prior to the update, one-off items had not been excluded in calculating the growth rate of applicable spending, which is moderated by revenue-raising measures. This growth rate is compared to the Expenditure Benchmark's limit (equal to the reference rate less the convergence margin) to evaluate whether the corrected[97] aggregate public expenditure for a given year adheres to the Expenditure Benchmark rule.

As discussed in Box I, the Commission has indicated that assessment of compliance with the Expenditure Benchmark will systematically exclude one-off items.[98] The Council believes that it is more appropriate to assess the Expenditure Benchmark with the methodology that applied at the particular time the policies were formed. This is in line with the views of the Department, described in Box 5 of *SES 2017*.

[97] The "Actual/Planned Real Expenditure Growth Rate" in Table 4.1 is equal to the growth rate of the corrected expenditure aggregate (CEA) net of discretionary revenue measures (DRMs) compared to a previous year's CEA. The CEA itself is equal to total general government expenditure adjusted for one-off expenditure items, interest, smoothed public investment (equal to public investment net of its four-year rolling average), spending on EU programmes fully matched by EU funds revenue, and the cyclical component of unemployment benefit payments. CEA net of DRMs is equal to CEA less DRMs, revenue measures mandated by law, and the change in one-off revenue items. The change in one-off revenue items therefore mitigates the expenditure-growing properties that otherwise accumulate with additional DRMs. See Annex 8, "A Numerical Example of the Expenditure Benchmark", in the Commission's *Vade Mecum* (European Commission, 2017a).

[98] To ensure that comprehensive details of the Expenditure Benchmark had been presented, the Council published an appendix (Table AG.1) to the June 2017 *FAR* containing an assessment table where one-off measures had not been excluded. For this *FAR*, assessment of the Expenditure Benchmark has reverted to using just one assessment table, for which only one-off items that have been identified since the December 2016 decision are excluded from relevant calculations.

In practice, for the 2017 assessment this approach implies the non-exclusion from the calculation of the "Actual/Planned Real Expenditure Growth Rate" for 2017 of a one-off revenue item received in July 2016.[99] This affects the Expenditure Benchmark assessment for 2017 in that DRMs net of the change in one-off revenue items provides flexibility within the Expenditure Benchmark rule for additional increases in expenditure, provided they are fully funded by non-transitory revenue increases.

4.4 *Ex-Ante* Assessment for 2018–2021

Turning to *ex-ante* assessments of 2018–2021, *Budget 2018* forecasts the MTO's achievement in 2018, with the structural balance rising in 2018 exactly as required. Much of the improvement in the structural balance for 2018 is due to a large and implausible decline in the CAM output gap. While such a fall in the output gap appears implausible, owing to issues regarding its calculation (Box B), its level does appear broadly reasonable at 0.7 per cent of estimated potential GDP. As such, the MTO's achievement next year would reflect a budget that is broadly in balance.

Breaches are still forecast for the Expenditure Benchmark in 2018, and a scenario analysis in this section investigates the changes to expenditure plans that would be required to achieve full compliance. For 2019 onwards, the MTO would be achieved and hence expenditure growth would be less constrained compared to recent years.

4.4.1 MTO and Structural Balance Adjustment Requirements

For 2018, the structural balance is forecast in *Budget 2018* to reach a deficit of 0.5 per cent of GDP, equal to the MTO. This is expected to be achieved by an increase in the structural balance that is exactly in line with the minimum-required adjustment of 0.58 of a percentage point.[100] The achievement of the required adjustment (and therefore the MTO) in 2018 is related to a large fall in the CAM output gap from +1.6 to +0.7 per cent of potential GDP. As discussed in the previous sections of this chapter, and in Chapter 1, the direction of the change of the output gap is more likely to be rising (from a negative position) than falling (from positive).

However, it is important to note that the achievement of the MTO would occur with any CAM output gap that is zero or below, given that the general government balance net of one-offs is forecast to reach a deficit of 0.2 per cent of GDP in 2018. While achieving the required structural

[99] The amount was €0.55 billion received from the European Stability Mechanism in lieu of a pre-paid margin relating to a loan received by Ireland in 2011 under the EU/IMF Programme. €3.6 billion was received from the European Financial Stability Facility in February 2011 for a loan with face value of €4.2 billion; referred to in footnote 1: http://www.ntma.ie/business-areas/funding-and-debt-management/euimf-programme/.

[100] This adjustment requirement was frozen by the Commission based on its *Spring 2017* assessment. While the minimum required change in the structural balance according to the adjustment-requirement matrix (see Appendix E for details) is ">0.5 percentage points" – operationalised as 0.6 of a percentage point – the Commission's estimate of the structural balance for end-2017 at the time of its *Spring 2017* assessment was 1.08 per cent of GDP. Since delivery of a 0.6 percentage-point adjustment would lead to over-compliance with the MTO requirement (-0.5 per cent of GDP), the adjustment requirement was frozen at 0.58 of a percentage point (the difference between the MTO and the *Spring 2017* structural balance).

balance increase is helped by an implausibly large reduction in the CAM output gap in 2018, the CAM's estimate of the output gap for that year of 0.7 per cent of potential GDP does appear to be reasonable. As such, the CAM-based estimate of the structural balance of –0.5 per cent of GDP in 2018 is also plausible, implying a budget that is broadly in balance after accounting for the impact of the economic cycle.

4.4.2 Expenditure Benchmark

With the achievement of the MTO forecast in 2018, increases in spending will not be constrained by the inclusion of a convergence margin in the application of the Expenditure Benchmark in 2019 and beyond. The Council recommends continued adherence to the Expenditure Benchmark as an anchor for the public finances, given the advantages it offers in improving the sustainability of spending growth over time.

Estimates based on *Budget 2018* figures currently indicate a risk of a breach of the Expenditure Benchmark rule in 2018. The forecasts indicate near-exact (i.e., minimum) compliance for 2018, but factoring in the expected 2017 breach of 0.2 per cent of GDP indicates a two-year breach of 0.1 per cent of GDP (€0.4 billion). However, these estimates would be worsened somewhat when the European Commission's assumptions regarding DRMs are considered. As described in Section 4.3.2 above, Box I shows differences in DRM estimates for the Department and the Commission; in cumulative terms, the Commission's estimates for 2017 and 2018 imply €1.8 billion less revenue attributable to discretionary policy than is estimated by the Department. Furthermore, although *Budget 2018* plans target the achievement of the MTO, this remains an uncertain outcome. Any further slippage in compliance with the Expenditure Benchmark could result in the MTO not being achieved. This in turn would mean that the Expenditure Benchmark would still formally apply.[101]

4.4.3 Scenario Analysis of Expenditure Benchmark Compliance

To provide context on the relationship between 2018 expenditure plans and compliance with the Expenditure Benchmark, a scenario analysis is undertaken below. The exercise firstly determines what level of expenditure reduction in 2018 would result in compliance for both a one- and two-year assessment of the Expenditure Benchmark; the change required is larger for the two-year assessment, from the need to compensate for the breaches currently projected for 2017.[102] A second scenario investigates what re-allocation of total expenditure towards public capital spending in 2018 would result in compliance for both a one- and two-year assessments. Table 4.2 summarises the findings.

[101] However, the Commission overall assessment would likely include non-indexation of income-tax bands. This would mean a lower breach than implied by using the Commission's *Autumn 2017* DRM estimates in full.

[102] Rather than simple addition of the relevant deviations shown in Table 4.1, this exercise instead takes account of the dynamics involved in assessment of the Expenditure Benchmark, as deviations are determined with reference to corrected expenditure aggregates (CEAs) discussed previously in this chapter.

Table 4.2: Scenario Analysis for Expenditure Benchmark Compliance in 2018
€ billion

Scenarios:	€ bn
Expenditure adjustments required to achieve:	
One-year compliance	-0.1
Two-year compliance	-0.7
Expenditure re-allocation to capital spending required to	
One-year compliance	+0.1
Two-year compliance	+1.0

Sources: Budget 2018 and internal IFAC calculations.
Note: Expenditure re-allocations to investment required to achieve compliance reflects existing flexibility within the Expenditure Benchmark.

For the first scenario, compliance with the Expenditure Benchmark on a two-year basis would require a reduction of €0.7 billion. In a scenario where public expenditure in 2018 is re-allocated towards public capital expenditure (with no change in overall spending), compliance would be achieved with a €1.0 billion re-allocation to public investment for a two-year assessment. This reflects the relatively favourable treatment of capital expenditure compared to current expenditure contained in the fiscal rules; the difference between current-year capital spending and its four-year rolling average is excluded from the growth in spending as assessed by the Expenditure Benchmark.

4.4.4 Debt Rule

Normal requirements of the Debt Rule will take effect from 2019, following the conclusion of a three-year period of transitional arrangements since Ireland exited the Corrective Arm of the SGP. The Debt Rule broadly requires a debt ratio to reduce by an average of at least 1/20th per year of the gap above 60 per cent GDP; this requirement is expected to present less of a binding constraint on Irish medium-term fiscal policy than may be the case for other elements of the fiscal rules, in particular if the MTO is not met in 2018. The Department's debt ratio projections are shown in Table 4.1 and fall well below the backward- and forward-looking benchmarks of the Debt Rule in all forecast years.

4.5 Budgetary Framework

This section discusses two areas of relevance to Ireland's budgetary framework: the Medium-Term Expenditure Framework (MTEF) and the proposed Rainy Day Fund (RDF).

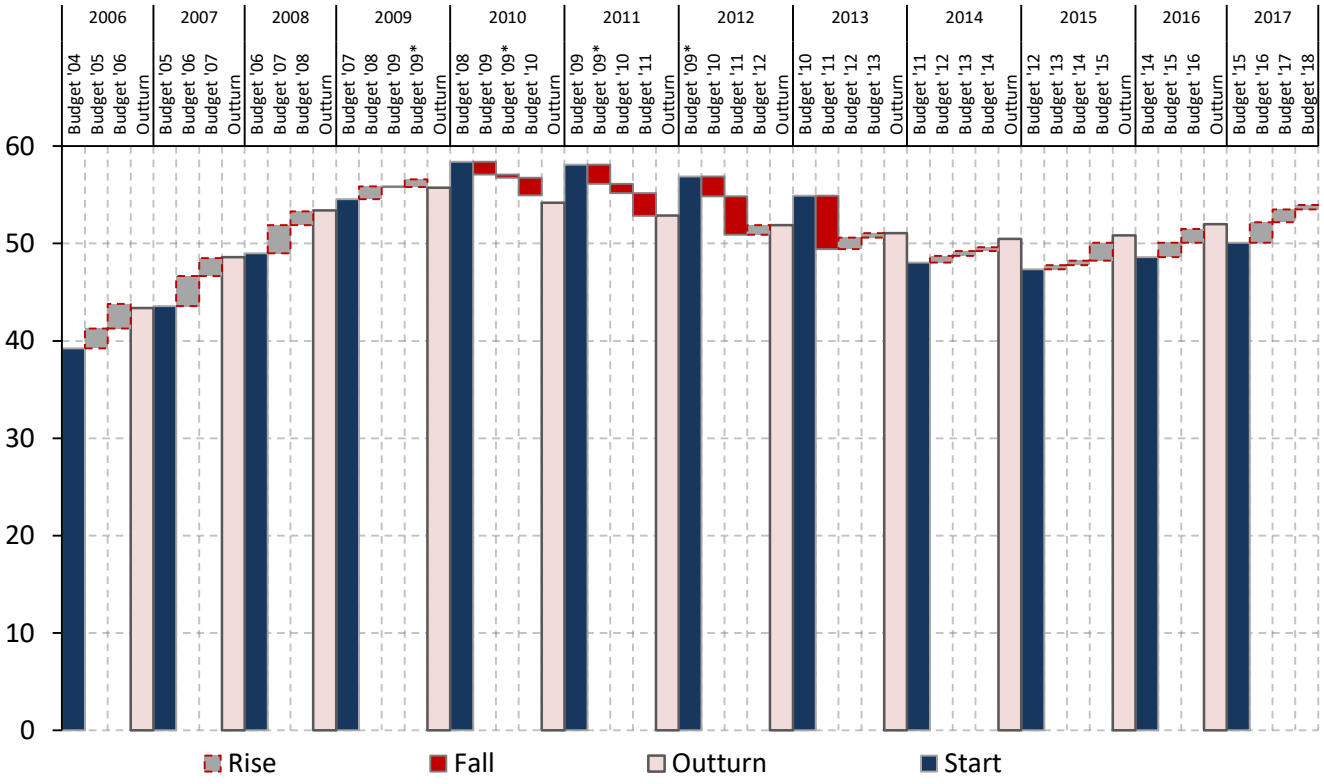
The MTEF is a core reform introduced since the crisis years, and the MTEF is legislated for in the *Ministers and Secretaries (Amendment) Act 2013*. With reference to the Expenditure Benchmark, limits to overall public expenditure are set for the following three years, while Ministerial expenditure ceilings are established to ensure aggregate expenditure remains within overall limits.

As shown in Figure 4.3, in recent years there has been a return towards annual upward revisions to expenditure plans over successive Budgets, in a pattern that broadly resembles the economic cycle.

While the *Budget 2018* rise in estimated 2017 current expenditure is moderate compared to the previous two increases, the cumulative difference compared to the Budget 2015 is €3.9 billion. A pro-cyclical approach to expenditure management weakens the capacity of the public finances to absorb negative shocks. Better adherence to the MTEF would strengthen the role of the Expenditure Benchmark in moderating the downside risks of a slowdown in economic growth.

Figure 4.3: Evolution Gross Current Expenditure Forecasts

€ billion



Sources: Department of Finance; internal IFAC calculations.
Note: Rise and Fall bars indicate changes to each year's expenditure plans introduced in successive budgets, followed by a year's outturn (e.g., "Budget '15" refers to expenditure forecasts contained for a particular year in *Budget 2015*).

As discussed in Box A of this *FAR*, the introduction of an RDF has the potential to strengthen Ireland's MTEF if the fund could provide a further countercyclical buffer. However, as described in the Department's recent RDF Consultation Paper (published alongside *Budget 2018*), the fund is instead envisaged as providing funding for unforeseen, emergency expenditure measures that would conform to the definition of a one-off item. If the expenditure measures were granted this classification, the approach would avoid potential difficulties with drawing down spending for the assessment of the Expenditure Benchmark (as one-off items are excluded from assessed expenditure).

However, given the adherence to multiple criteria required to achieve one-off classification, the Department's plans for use of the fund may struggle to obtain any exceptional status. These criteria were examined in Box H of the *June 2017 FAR* and require that items be intrinsically non-recurrent,

not decreed by law, beyond the usual volatility of revenue and expenditure, not the result of deliberate policy choices, and larger than 0.1 per cent of GDP in size. Furthermore, in the absence of a very large shock to the economy, it may prove challenging to obtain relief for the RDF-related expenditure through the investment, unusual event or structural reform clauses under the Preventive Arm of the *SGP*.

Overall, the reliance on exceptional relief for RDF-related expenditure inherently limits the scope of the fund to act as a counter-cyclical buffer. Indeed, this scope is also constrained by the cap limiting planned contributions to a maximum of €500 million per annum (discussed in Chapter 1). Issues regarding the fund's interaction with the Expenditure Benchmark's application require further investigation. Greater engagement with the Commission on this issue may result in enhanced flexibility under the fiscal rules, facilitating more opportunities for smoothing the effects of the cycle on public finances.

Appendix A: Timeline for Endorsement of *Budget 2018* Projections

Date	
15th September	CSO release *Quarterly National Accounts* estimates for Q2 2017.
18th September	The Secretariat and Department of Finance met the CSO to clarify technical details of latest *Quarterly National Accounts* estimates.
20th September	The Secretariat received Department of Finance technical assumptions underpinning *Budget 2018* forecasts.[103]
21st September	After consideration by the Council, Benchmark projections were finalised by the Secretariat prior to receiving preliminary forecasts from the Department of Finance.
21st September	The Council received preliminary forecasts from the Department in line with *Memorandum of Understanding* requirements.
26th September	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.
28th September	The Council met to discuss the Department of Finance forecasts.
29th September	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.
29th September	The Chair of the Council wrote a letter to the Secretary General of the Department of Finance endorsing the set of macroeconomic forecasts underlying *Budget 2018*.
10th October	The Department's forecasts are published in *Budget 2018.*

[103] 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 the growth of major trading partners.

Appendix B: The Council's Benchmark Projections (as of 21st Sep)

Table AB.1: Benchmark Projections for 2017-2019

% change in volumes unless otherwise stated

	2017	2018	2019
GDP	5.2	4.7	3.7
Consumption	3.1	2.3	2.6
Investment	-0.2	1.5	2.2
Government	2.0	2.0	2.0
Exports	3.7	5.6	5.0
Imports	0.1	3.9	4.3
Net Exports (p.p. contribution)	4.4	3.1	2.0
Domestic Demand (p.p. contribution)	1.2	1.4	1.7
Underlying Net Exports (p.p. contribution)	4.5	3.1	2.0
Underlying Domestic Demand (p.p. contribution)	1.1	1.4	1.7
Stock Changes (p.p. contribution)	-0.4	0.2	0.0
Current Account (% GDP)	1.6	0.7	-0.1
Employment	2.6	2.2	2.1
Unemployment Rate (%)	6.3	6.0	5.4
HICP	0.3	1.7	2.3
GDP Deflator	0.2	-0.6	1.0
Nominal GDP (€ billions)	290.5	302.4	316.5
Nominal GDP (% growth)	5.4	4.1	4.7

Source: Internal IFAC calculations.

Appendix C: Imbalance Indicators

As previously highlighted IFAC (2015), the Council, as part of its toolkit for examining the cyclical position of the economy use a "modular" approach. While estimates of the output gap and potential output are useful summary measures, 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. Four modules are shown here, namely:

(i) the Labour Market,

(ii) the External Sector,

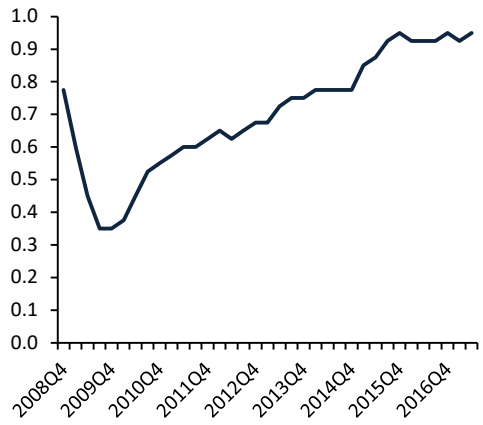
(iii) Investment/Housing; and

(iv) Credit

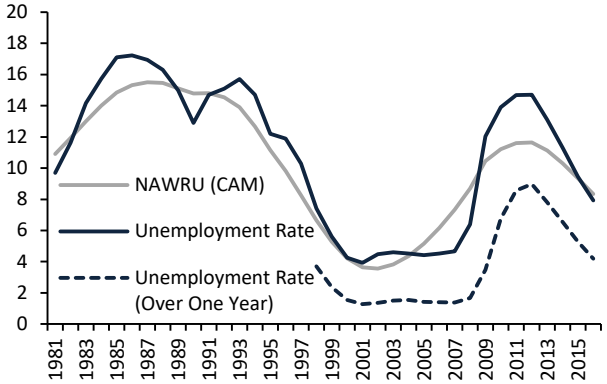
Figure AC.1: Labour Market Indicators

Rates (%)

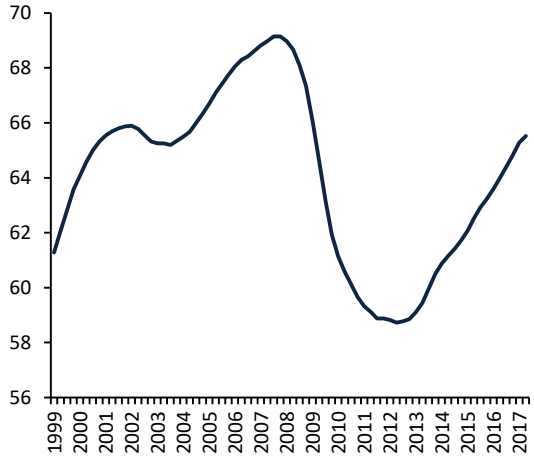
A. Private Sector Job Vacancy Rates[1]



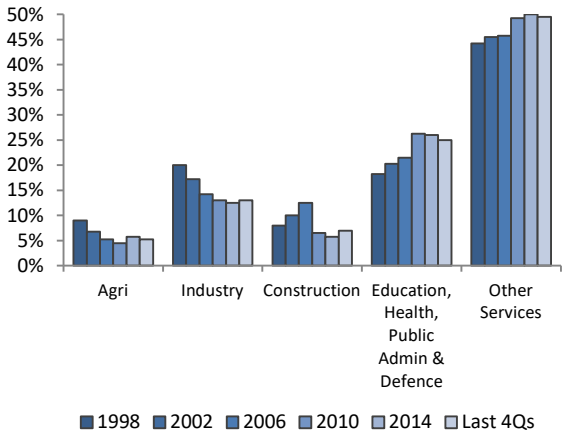
B. Unemployment Rates[2]



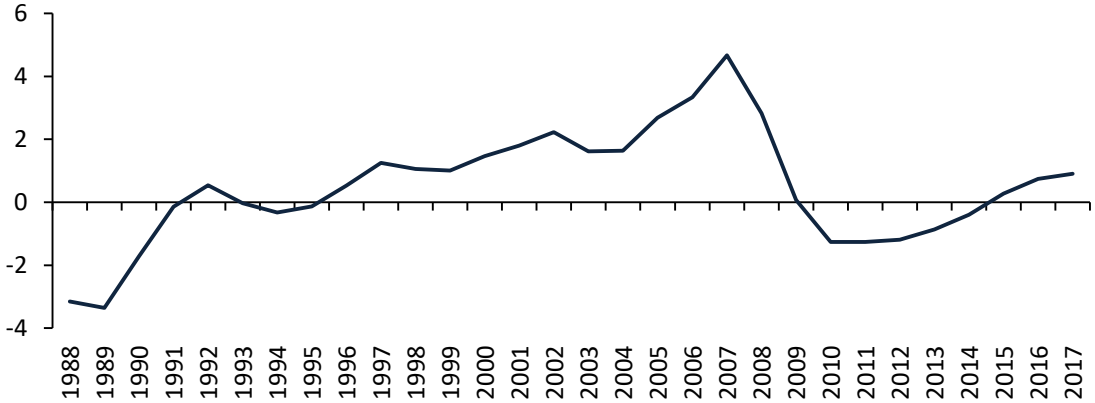
C. Employment Rate (Age 15-64)[3]



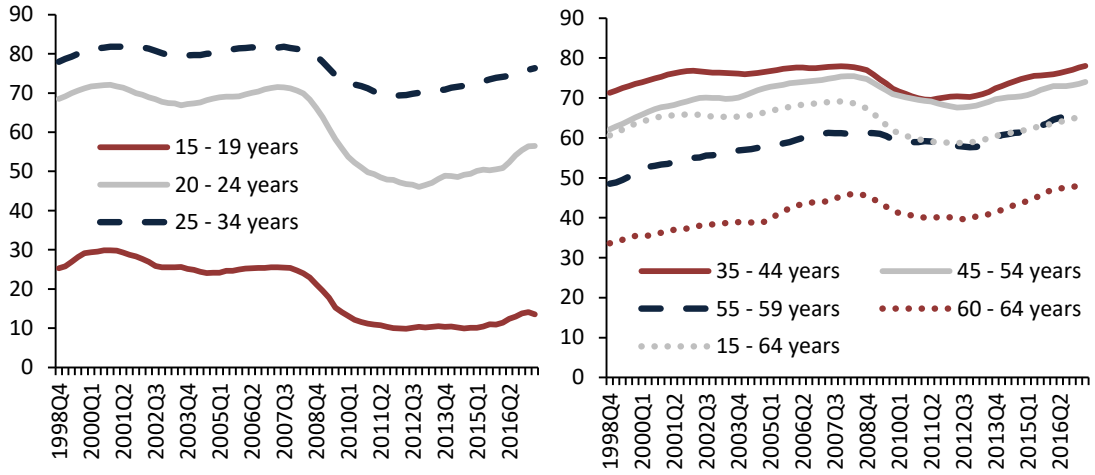
D. Sectoral Employment Concentration (% Total)



E. Net Migration (% labour force)[4]



F. Employment Rates by age (%) [3]



Source: CSO; European Commission; internal IFAC calculations.

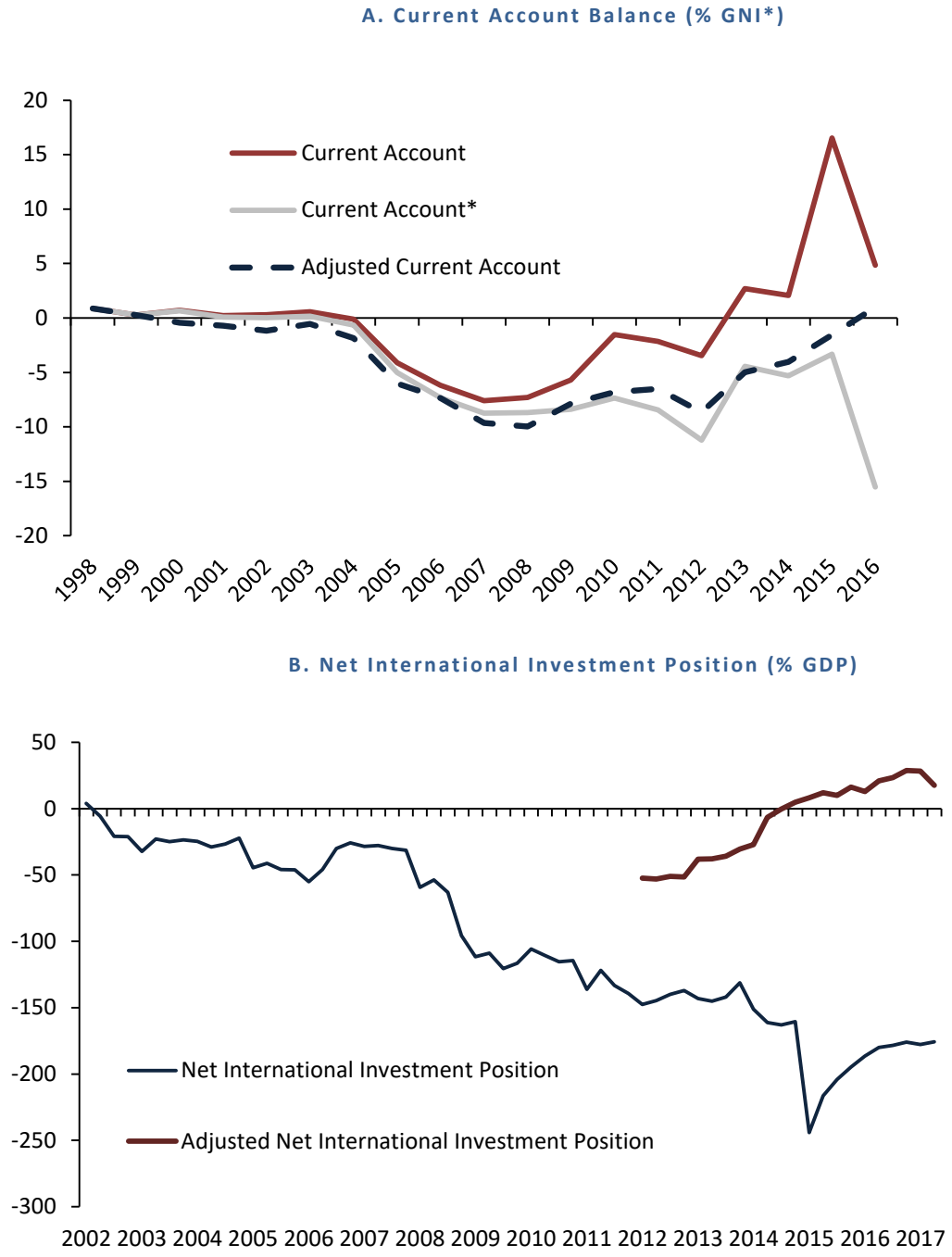
[1] Rates show % of vacancies + occupied jobs. Four quarter moving average of job vacancy rate shown.

[2] The NAWRU estimates shown are that of the European Commission as based on the Commonly Agreed Methodology.

[3] A four quarter moving average is shown for employment rates.

[4] Positive net migration indicates immigration exceeded emigration.

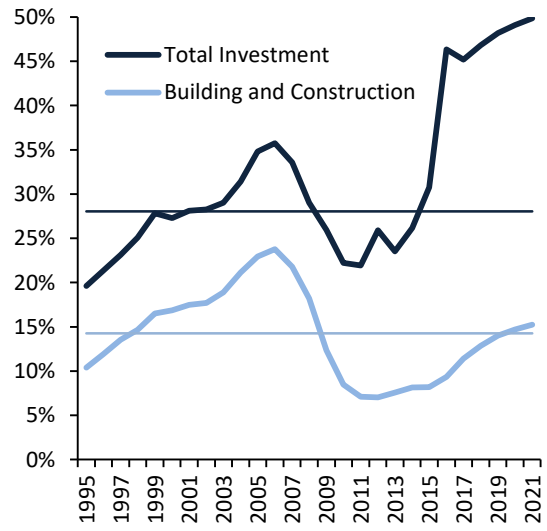
Figure AC.2: Indicators of External Balances
(% GDP)



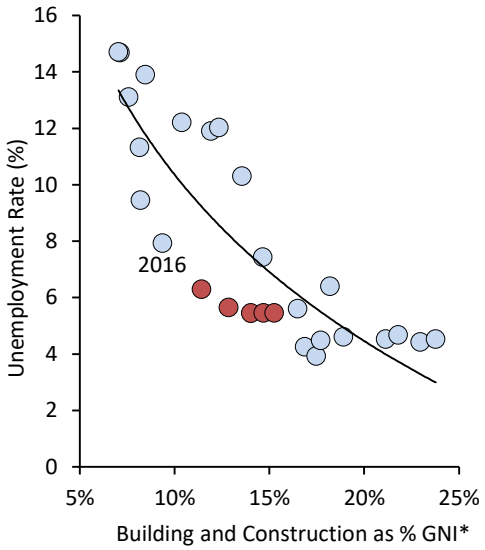
Sources: CSO; Eurostat and internal IFAC calculations.
Note: Current account balance* excludes the estimated impact of redomiciled PLCs, depreciation on research & development related intellectual property (IP) imports and depreciation on aircraft leasing. The adjusted current account balance takes the three adjustments made for current account* and makes two further adjustments. These are imports of R&D services by foreign owned MNCs and acquisitions of IP assets and aircraft for leasing. Adjusted measure of net international investment position excludes activities of the International Financial Services Centre and Non-Financial Corporations.

Figure AC.3: Investment/ Housing Indicators
(% GNI*)

A. Investment (% GNI*)

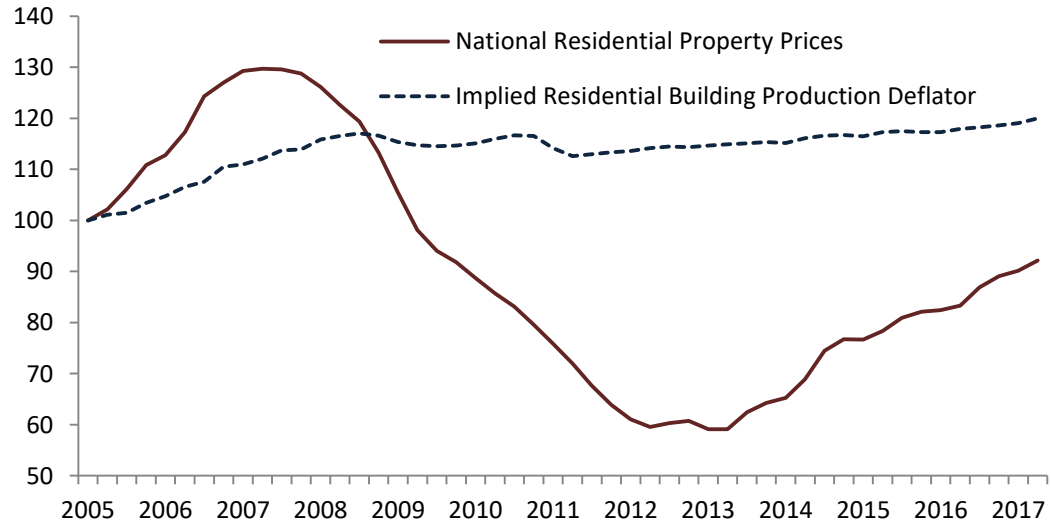


B. Construction Activity & Unemployment

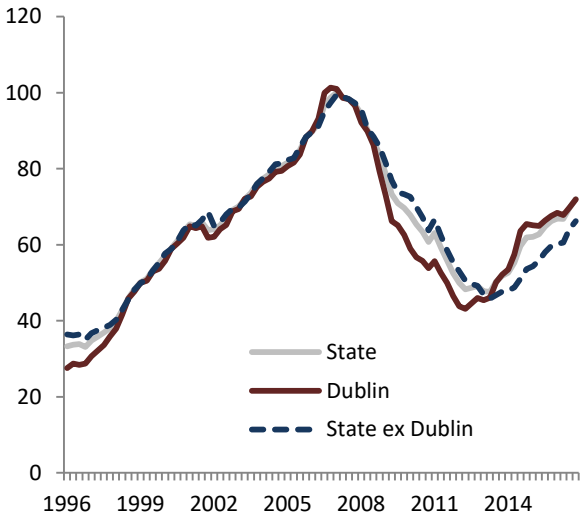


Sources: CSO; AMECO; Department of Finance; internal IFAC calculations.
Notes: Historical averages for investment ratios for 1995-2016 shown as horizontal lines in Panel A. In panel B, forecasts (2017-2021) are shown in red.

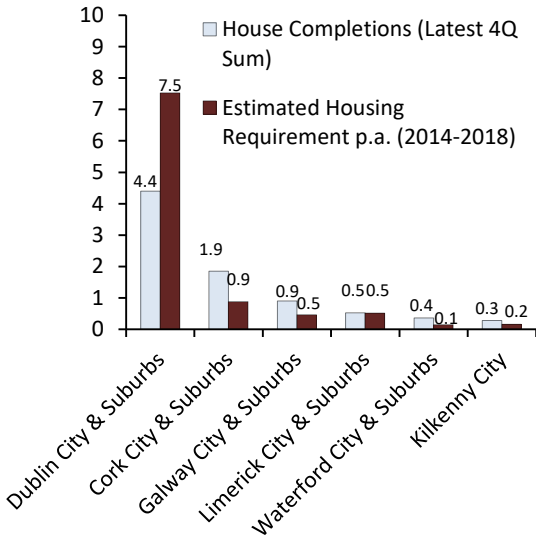
C. Irish Residential Property: Nominal Prices and Implied Production Costs (Index: Q1 2005=100)



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

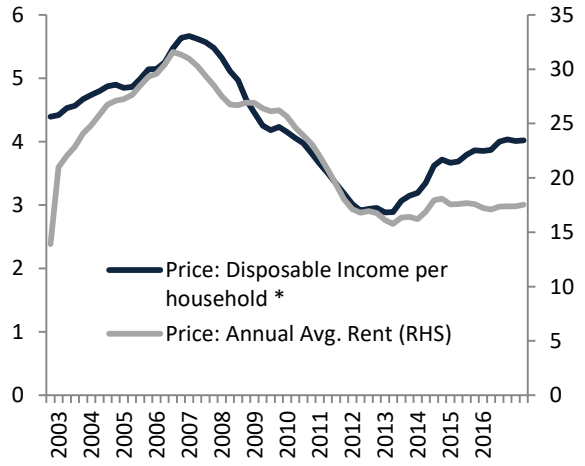


E. Estimated Housing Requirements and Completions (000s)

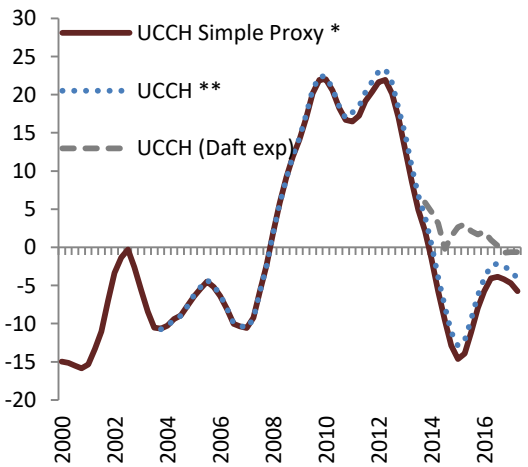


Sources: CSO, ESRI/PTSB, Housing agency estimates and Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.

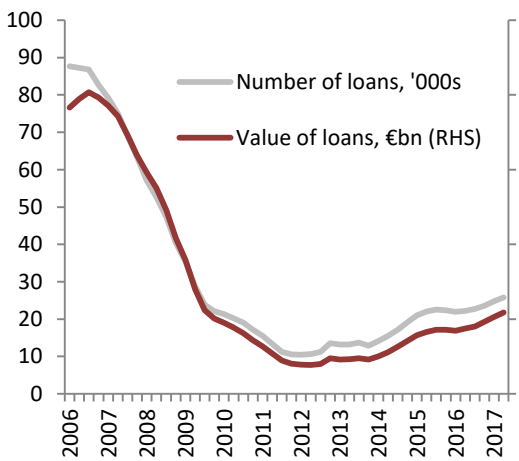
F. Housing Valuation Ratios



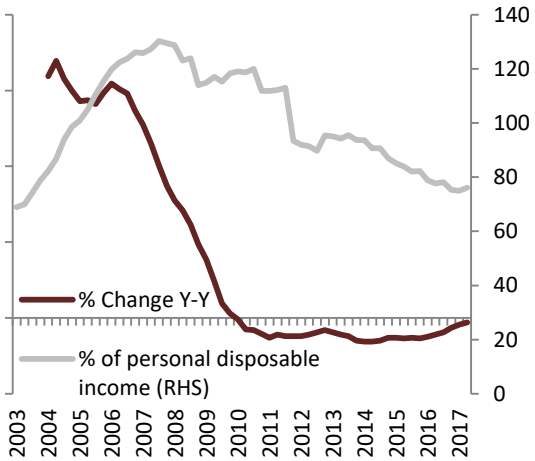
G. User Cost of Capital for Housing (UCCH)



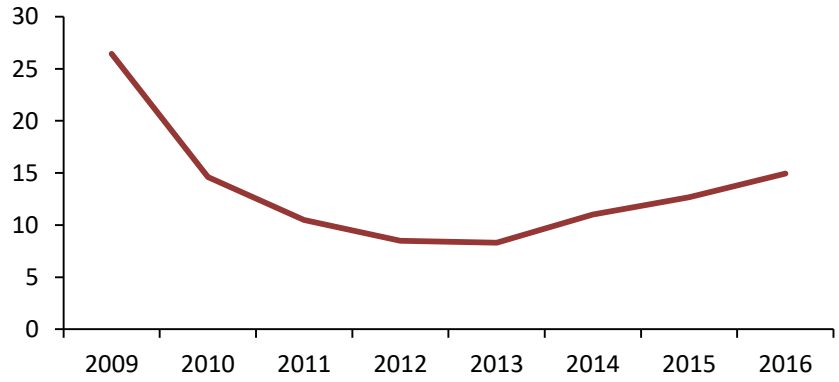
H. Annualised Residential Mortgage lending (first-time buyer & mover purchase loans)



I. Loans to Irish Households for House Purchase



J. Housing Completions (000s)

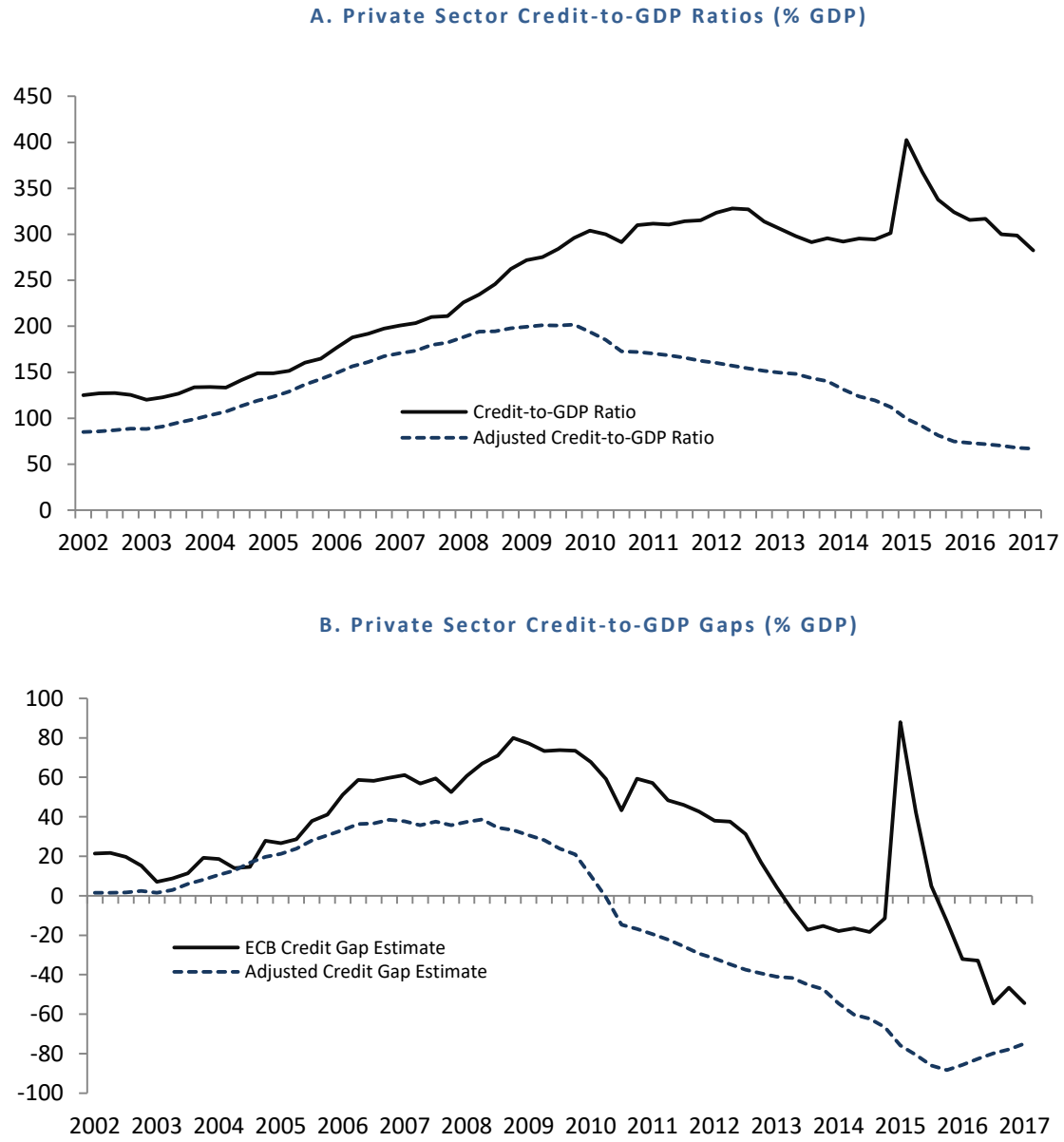


Sources: CSO, ESRI/PTSB, Central Bank of Ireland, IBF Mortgage Market Profile, Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.

Note: Price to disposable income per household corresponds to average house prices divided by moving 4-quarter sum of adjusted personal disposable income per capita. UCCH simple proxy corresponds to new mortgage rates less annual price change for the past 4 Qs. UCCH** includes first-time buyer taxes/subsidies; down-payments; depreciation/maintenance. UCCH (daft) uses Daft.ie 12 month price expectations. Housing stock is proxied by Long-term loans; ESA-95 basis pre-2012.

Figure AC.4: Credit Indicators

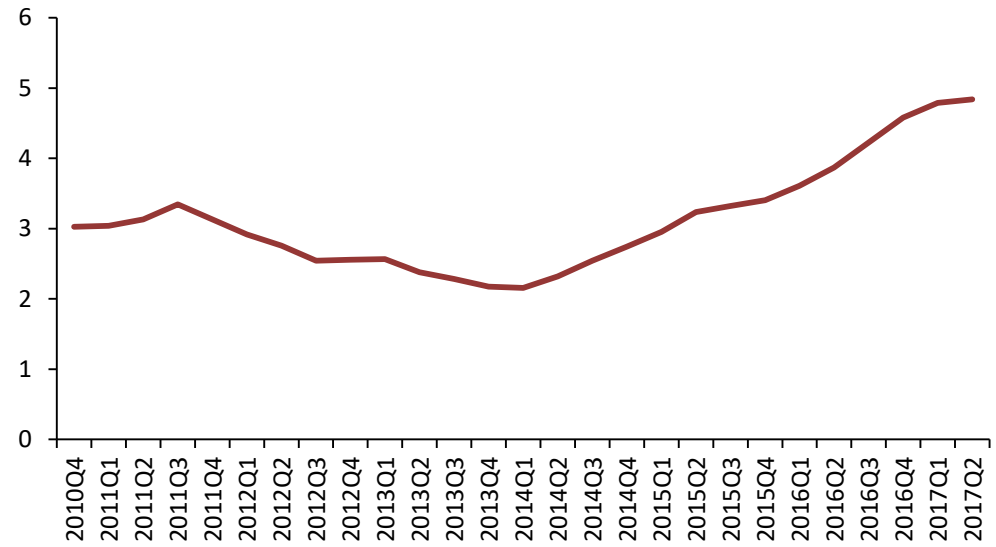
(% GDP)



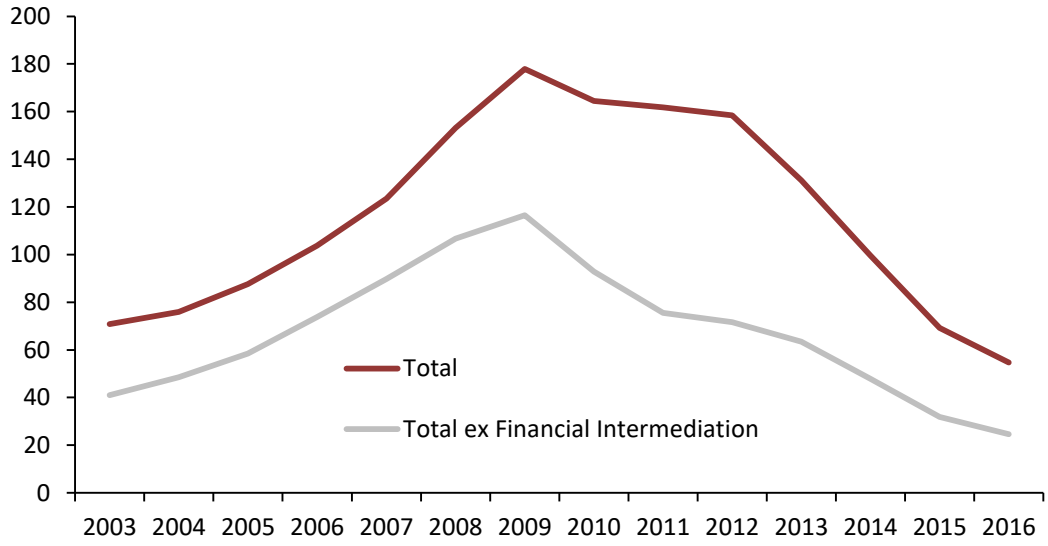
Sources: CSO; Central Bank of Ireland and internal IFAC calculations.

Notes: Adjusted ratios are constructed as Irish resident private sector enterprise credit (excl. financial 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:I, 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: $(CREDIT_t / (GDP_t + GDP_{t-1} + GDP_{t-2} + GDP_{t-3})) \times 100\%$. 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: $GAP_t = RATIO_t - TREND_t$.

C. New Credit Advanced to Irish Resident Small and Medium Enterprises (Excluding Financial Intermediation, € billion, 4Q Sum)



D. Credit Advanced to Irish resident Private Sector enterprises (% GNI*)



Sources: CSO; Central Bank of Ireland and internal IFAC calculations.

Appendix D: Exchequer Tax Revenue Forecasts

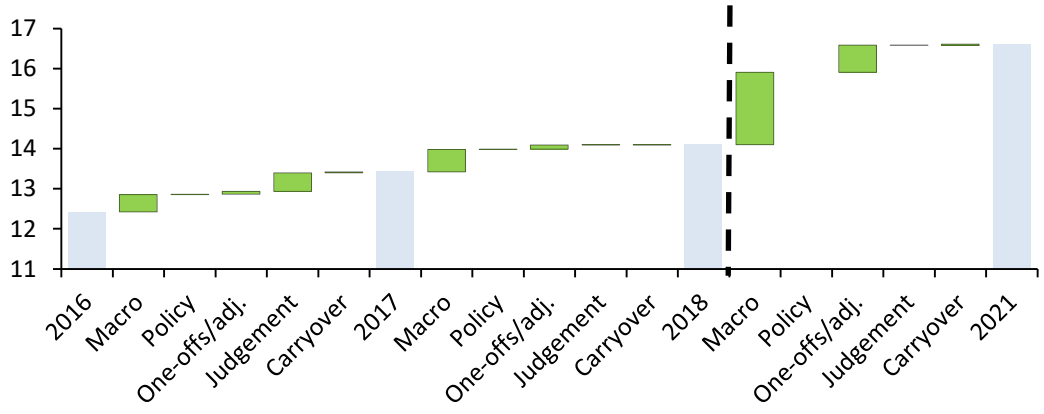
This Appendix examines forecasts for tax revenues produced by the Department of Finance for *Budget 2018*. It decomposes the drivers of each forecast into a number of components: (i) the "macro" driver (the part of the forecast driven by forecast growth rate in the relevant macro driver, e.g. wages for income tax); (ii) any "policy" change impacts (e.g., discretionary tax cuts); (iii) "one-off" items that impact expected tax receipts; (iv) carryover (the knock-on impact of previous year's policy changes; and (v) judgement (any residual factors, but mainly judgement in the forecast).

Figure AD.1 (A-E) shows the most relevant factors influencing the *Budget 2018* tax forecasts for the four main tax heads for the period 2017-2021. Income tax is disaggregated by PAYE and USC, which provides a practical view in understanding the drivers of USC projection errors to date. In each case, the forecasts for 2017 and 2018 are shown separately, while the forecasts for 2019-2021 are shown cumulatively. The floating bars show the size of the increase in taxes due to that source.

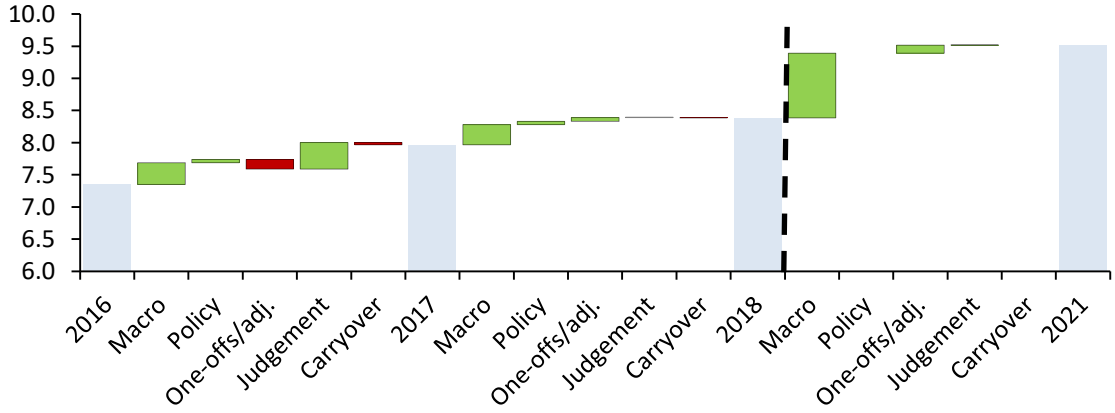
Figure AD.1: A-E

€ billions

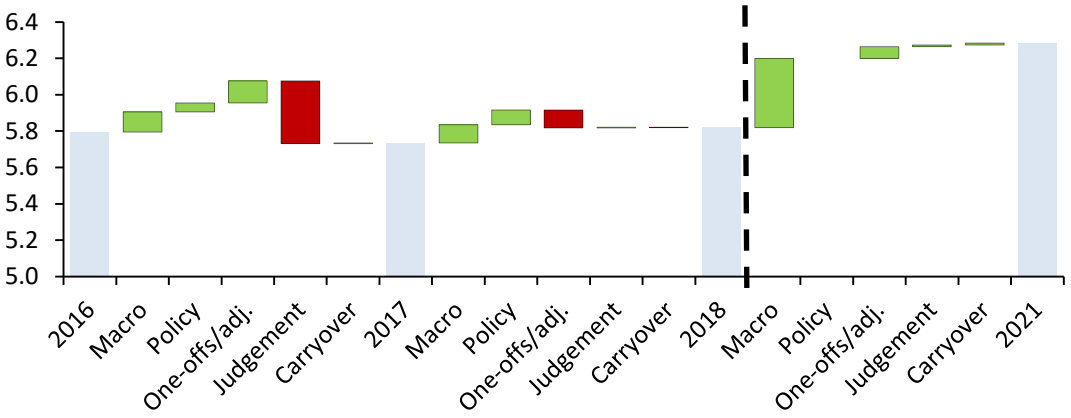
A: VAT



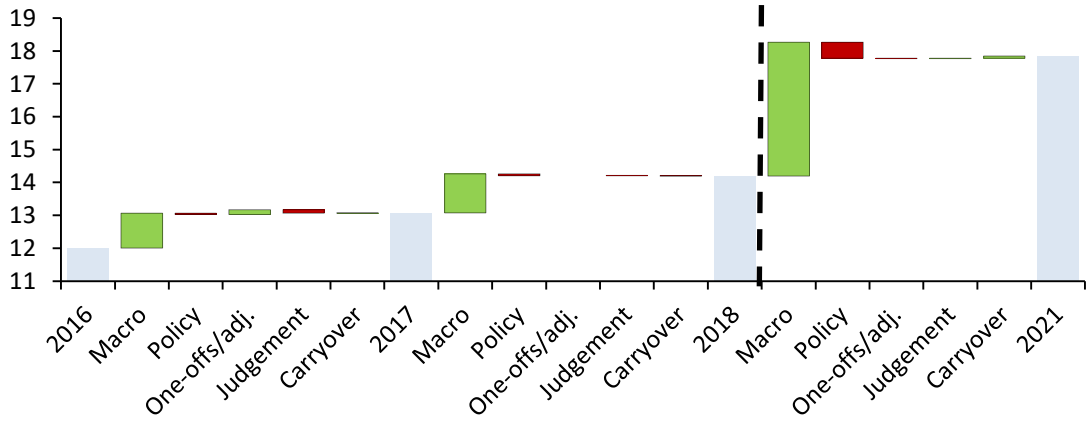
B: Corporation Tax



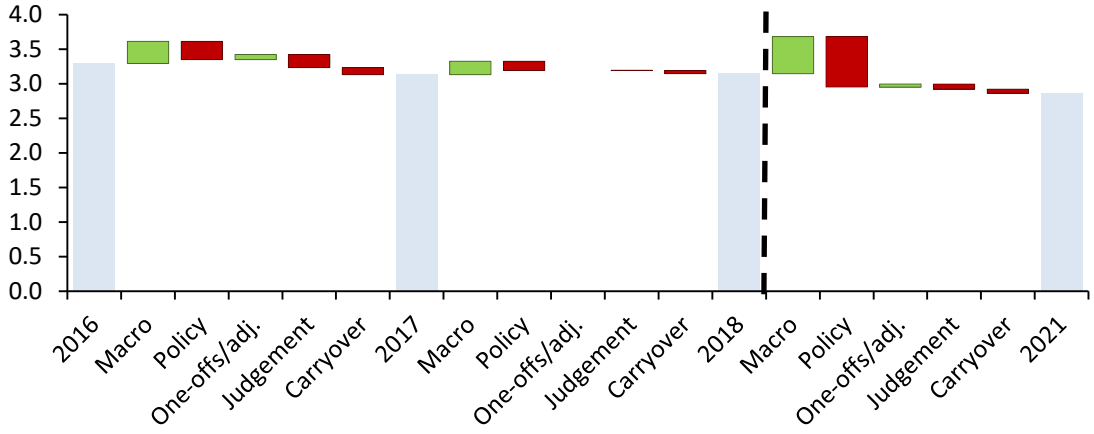
C: Excise



D: PAYE



E: USC



Sources: Department of Finance; and internal IFAC calculations.
Note: "Judgment" includes other categories not covered in the remaining headings of which judgement is typically a key factor.

Appendix E: Additional Tables Relevant for the Fiscal Rules

Figure AE.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 ≤ output gap < -3	0	0.25
Bad times	-3 ≤ 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 ≤ output gap < 1.5	0.5	> 0.5
Good times	output gap ≥ 1.5	> 0.5 if growth below potential, ≥ 0.75 if growth above potential	≥ 0.75 if growth below potential, ≥ 1 if growth above potential

Source: *Vade Mecum* (European Commission, 2017a).
Note: Requirements of > 0.5 percentage points are operationalised within Commission assessments as at least 0.6 of a percentage point of GDP.

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

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

Source: Vade Mecum (European Commission, 2017a).
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.

Glossary[104]

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.

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.

[104] Most of 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*.

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 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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