Irish Fiscal Advisory Council

Fiscal Assessment Report

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Foreword

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

The mandate of the Irish Fiscal Advisory Council is:

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

The Council 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 as well as David Purdue, NTMA and Daragh Clancy, ESM, and would also like to thank Máire O' Dwyer for copy editing the report.

The Council submits its Fiscal Assessment Reports to the Minister for Finance and within ten days releases them publicly. This report was finalised on 31 May 2018. More information on the Irish Fiscal Advisory Council can be found at www.FiscalCouncil.ie

Summary Assessment

A rapid cyclical recovery has taken place since at least 2014 and this is continuing at a strong pace. Looking across a number of indicators, the Irish economy still appears to be growing very fast. Forecasts assume that the recent momentum in the domestic economy will only gradually moderate and they incorporate a reasonably strong outlook for Ireland's main trading partners.

There is much uncertainty, yet most coherent estimates suggest that the domestic economy has been growing faster than its potential growth rate since 2014. Estimates suggest that the economy is producing close to its medium-term potential in 2018 and will move beyond it next year and after. There are also burgeoning pressures in the housing sector where persistent undersupply has been evident. There are substantial risks that a faster-than-assumed – and much-needed – pick-up in housing output could arise. Unless offsetting measures are taken elsewhere, including through fiscal policy, this could prompt overheating in the economy.

Ireland's debt burden is still among the highest in the OECD. Ireland's net government debt burden is understated by using standard GDP comparisons. When set against a comparable measure of national income like GNI*, the net debt burden is equivalent to 87 per cent, the sixth highest in the OECD behind only Italy, Portugal, Belgium, France and Japan.

Negative shocks will inevitably occur in future years. There are clear downside risks over the medium term, namely those associated with Brexit, US trade policy and the international tax environment. This report gives a stylised example of the direct impacts of a large, foreign-owned multinational firm ceasing its Irish operations. Corporation tax receipts would be particularly vulnerable to such an exit, given the high concentration of payments among the top ten contributing firms. The risk of a "hard Brexit" after March 2019 remains significant if the EU and the UK were not to reach agreement regarding a transition arrangement. It is also possible that the expected impacts of Brexit may be

underestimated. Standard models may not fully capture the extent of the two countries' closely integrated supply-chain networks, amongst other features.

Improvements on the budgetary front have stalled since 2015 despite the strong cyclical recovery taking place – one that is reinforced by a number of favourable tailwinds. While the economy has experienced a strong recovery, this has not translated into any notable improvement in the underlying budget balance, taking into account improvements driven by the cycle. Non-interest spending has risen at essentially the same pace as buoyant cyclical tax revenue since 2015. Allowing for the estimated effects of the cycle, the structural position would appear to have deteriorated since 2015.

The Government should at least stick to existing budget plans for 2019. The Council assesses that there is no case for additional fiscal stimulus in 2019 beyond existing plans as set out in *SPU 2018*. An appropriate policy for next year would be to increase government expenditure in line with the sustainable long-term growth rate of the economy. Central estimates of the economy's medium-term potential output growth rate from the Council, the Department of Finance, and the ESRI would suggest that the economy's potential growth rate is 3¼ per cent per annum. This would imply an approximate limit for spending increases or tax cuts of up to €3½ billion (i.e., the "gross fiscal space") as the starting point for any budgetary plans for 2019. Anything more expansionary than this suggested maximum limit is not likely to be appropriate. Yet improving the budget balance more than currently planned would be desirable, especially given the risks of overheating and the opportunity provided by favourable times. The cost of previously announced measures, including sharp increases in public investment spending, means that the scope for new initiatives in Budget 2019 will be limited. If additional priorities are to be addressed, these should be funded by additional tax increases or through re-allocations of existing spending.

Any unexpected increases in tax revenues or lower interest costs should not be used to fund budgetary measures. Any further loosening of current plans would not be appropriate and the window of

opportunity should be used to return debt to safer levels and to make the economy more resilient to shocks. Revenues arising from a faster-than-expected recovery in housing construction should be used to build buffers either through additional contributions to the Rainy Day Fund or through faster debt reduction. Moreover, spending should not be allowed to continue to drift up as unexpected – and likely cyclical or transitory – revenues arise.

The Government needs a credible plan for the medium term. Focusing on the right budgetary stance and being prepared to be more cautious than the fiscal rules allow is the correct approach for the Government to follow. Yet there are a number of challenges to following such a policy as Ireland exits its latest crisis and there is no scope for complacency. In particular, there is a danger that the current policy framework is insufficiently equipped to prevent a return to procyclical fiscal policy. Sensible policy tools such as the Rainy Day Fund and a medium-term debt target, which were set up to help with medium-term budgeting, are only half-formed and need more development if they are to be effective. The shortening of the horizon in the Government's most recent projections from five to three years ahead is not compatible with the aim of achieving medium-term fiscal stability.

The Council welcomes the Department's publication of alternative estimates of the output gap. Well-founded forecasts for the medium term are necessary to provide a sound basis for setting the economy and the public finances on a sustainable path. The publication of alternative estimates by the Department represents significant progress and is welcome. The estimates have not been assessed within the scope of the Council's formal endorsement for *SPU 2018*. However, regular updates to these measures should feature as headline indicators of economic performance in future Department publications and be included for assessment under future endorsements.

The Medium Term Objective (MTO) of a structural deficit of no less than 0.5 per cent of GDP was reached in 2017. From an economic perspective – and in terms of the technical application of the fiscal rules – it would seem that the Government's budgetary position is currently

close to balance. As the MTO was met last year, requirements to adjust the structural deficit are not expected to bind for 2018. Over the medium term (2019–2021), plans currently show compliance with the rules based on the EU Commonly Agreed Methodology. The structural balance is expected to deteriorate below the MTO in 2018, leading to an adjustment requirement in 2019. However, this deterioration is followed by an offsetting improvement in 2019, which is forecast to be sustained over the medium term.

The Council sees the fiscal rules as a minimum standard for sustainability and continues to recommend that the Government commit to adhering to the Expenditure Benchmark even after the MTO is exceeded. If the achievement of the MTO is sustained, as in current plans for 2019, the Expenditure Benchmark will play a less binding role and would not on its own trigger non-compliance. One way to mitigate measurement problems affecting the MTO would be to use the Expenditure Benchmark as a guide together with estimates of the economy's sustainable medium-term growth rate and the natural rate of unemployment (the Department's alternative estimates of potential output growth for the medium term could help to inform this). This would also help to ensure that spending growth is more sustainable, notwithstanding some degree of procyclical bias affecting the spending rule.

1. Assessment of Fiscal Stance

Key Messages

- A strong cyclical recovery and substantial consolidation effort, particularly in the early years of the crisis, has helped to improve Ireland's budgetary position. This has led to an important milestone in 2017: the achievement of the Medium-Term Objective (MTO) of a structural deficit of 0.5 per cent of GDP. From an economic perspective – and in terms of the technical application of the fiscal rules – the Government's budgetary position is currently close to balance.

- Ireland's government debt burden is still among the highest in the OECD and negative shocks will inevitably occur in future years. A further loosening of current plans as the economy and revenues improve risks missing the window of opportunity to return debt to safer levels and to make the public finances more resilient to shocks.

- Improvements on the budgetary front have slowed more recently even as the cyclical recovery continues and is reinforced by a number of favourable tailwinds. Non-interest spending has risen at essentially the same pace as buoyant cyclical tax revenue since 2015 and the structural position is likely to deteriorate in 2018. In recent years, spending drift has been allowed to absorb all of the unexpected revenue gains.

- The Government's current plans as set out in *SPU 2018* would be appropriate provided that these are followed through on. Yet improving the budget balance more than currently planned would be desirable, especially given the risks of overheating and the opportunity provided by favourable times. Any revenues arising from a faster-than-expected recovery in housing construction should therefore be used to build buffers. This could take the form of either additional contributions to the Rainy Day Fund or through faster debt reduction. This is all the more important when there are obvious downside risks over the medium term including those associated with Brexit, US trade policy and the international tax environment.

- For 2019, there is no case for additional fiscal stimulus. The appropriate policy would be to increase government expenditure broadly in line with the long-term potential growth rate of the economy plus inflation. This would imply an approximate limit of up to €3½ billion for spending increases or discretionary tax cuts (i.e., the "gross fiscal space") as a starting point for budgetary plans for 2019. Anything more expansionary than this suggested maximum limit is not likely to be appropriate. Prudence is all the more important when there are obvious downside risks over the medium term, including those associated with Brexit and international tax policy.

- Given existing spending commitments and the planned contribution to the Rainy Day Fund, this reduces the scope for additional measures in Budget 2019. If additional priorities are to be addressed, these should be funded by additional tax increases or through re-allocations of existing spending. Any unexpected increases in tax revenues or lower interest costs should not be used to fund permanent budgetary measures.

- The Government needs a credible plan for the medium term. Focusing on the right budgetary stance and being prepared to be more cautious than the fiscal rules allow is the correct approach for the Government to follow. Yet there are a number of challenges to following such a policy as Ireland exits its latest crisis and there is no scope for complacency. In particular, there is a danger that the current policy framework is insufficiently equipped to prevent a return to procyclical fiscal policy. Sensible policy tools recently introduced need further development if they are to be effective. The Rainy Day Fund should operate more as a countercyclical tool, while the debt target and medium-term budgetary framework are not properly implemented. The shortening of the horizon in the government's projections from five- to three-years-ahead is not conducive to the aim of achieving medium-term fiscal stability.

Table 1.1: Summary Table

% GNI* unless stated, general government basis (based on *SPU 2018* forecasts)

	2015	2016	2017	2018	2019	2020	2021
General Government							
Revenue [1]	41.0	38.5	37.9	37.2	36.9	36.6	36.5
Expenditure [1]	42.6	39.5	38.3	37.6	37.1	36.2	35.9
Balance [1]	-1.6	-1.0	-0.4	-0.4	-0.2	0.4	0.6
Interest Expenditure	4.0	3.3	2.9	2.5	2.3	2.2	2.0
Primary Expenditure [1]	38.7	36.2	35.4	35.1	34.8	34.0	33.9
Primary Balance [1]	2.3	2.3	2.5	2.1	2.2	2.6	2.6
Real Expenditure Net of DRMs (% Change)[2]	5.9	-1.2	3.1	1.5	2.2	0.9	2.9
CAM Structural Balance (% GDP) [3]	-1.5	-0.9	-0.5	-0.9	-0.4	0.1	0.3
Change in CAM Structural Balance (p.p.)[3]	1.9	0.6	0.5	-0.4	0.5	0.5	0.2
CAM Structural Primary Balance (% GDP) [3]	1.1	1.3	1.5	0.8	1.2	1.5	1.7
Change in CAM Structural Primary Balance (p.p.)[3]	0.6	0.2	0.2	-0.7	0.3	0.3	0.1
Debt							
Gross Debt	116.6	106.0	100.1	96.9	93.6	88.9	86.8
Net Debt	99.8	92.8	86.7	83.0	80.6	78.7	76.3
Gross Debt (% GDP)	76.9	72.8	68.0	66.0	63.5	60.2	58.7
Net Debt (% GDP)	65.8	63.7	58.9	56.5	54.7	53.3	51.6
Gross Debt (% Revenue)	284.5	273.4	264.2	260.2	253.5	243.2	237.8
Net Debt (% Revenue)	243.5	239.3	228.9	222.9	218.2	215.3	208.9
Output							
Real GDP Growth (% Change)	25.6	5.1	7.8	5.6	4.0	3.4	2.8
Nominal GDP Growth (% Change)	34.7	5.2	7.5	5.6	5.4	4.7	4.3
Nominal GDP Level (€bn)	262.0	275.6	296.2	312.8	329.6	345.1	360.0
Nominal GNI* Growth (% Change)	11.9	9.4	6.3	5.9	5.0	4.5	4.2
Nominal GNI* Level (€bn)	172.9	189.2	201.2	213.0	223.6	233.6	243.5
Potential Output (% Change) [4]	24.0	4.6	6.6	5.0	3.1	3.1	2.7
Output Gap (% Potential GDP) [4]	-2.4	-2.5	-1.6	-1.0	0.3	0.8	0.9
Miscellaneous							
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

[1] One-offs/temporary measures excluded to get a sense of the underlying fiscal position are those assessed as being applicable by the Council. These comprise the AIB transaction in 2015 (€2.11 billion); an amount related to the EU Budget contribution for 2016 (€0.17 billion); the European Financial Stability Facility (EFSF) pre-paid margin in 2016 (€0.55 billion); and the cost of refunding water charges 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). It is non-interest spending growth net of any discretionary revenue measures (e.g., tax increases/cuts). Measures that lead to additional revenues allow equivalent increases in spending growth; measures that reduce revenues constrain the pace of spending growth allowed under the rules.

[3] These are based on the latest supply-side estimates derived under the Commonly Agreed Methodology (CAM), which has a number of drawbacks that can lead to inappropriate estimates for Ireland (Box B and E, IFAC 2017e).

[4] These estimates are based on the Department's preferred GDP-based alternatives to the CAM as in *SPU 2018*.

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 reflected in the *Stability Programme Update* (*SPU) 2018*.

The Council's assessment of the fiscal stance is informed by the extent of compliance with the fiscal rules, along with a complementary economic assessment. The economic assessment takes into account the state of the public finances, the stage of the economic cycle, and growth prospects for the economy.

1.2 The Recent Macroeconomic and Fiscal Context

Macroeconomic Context

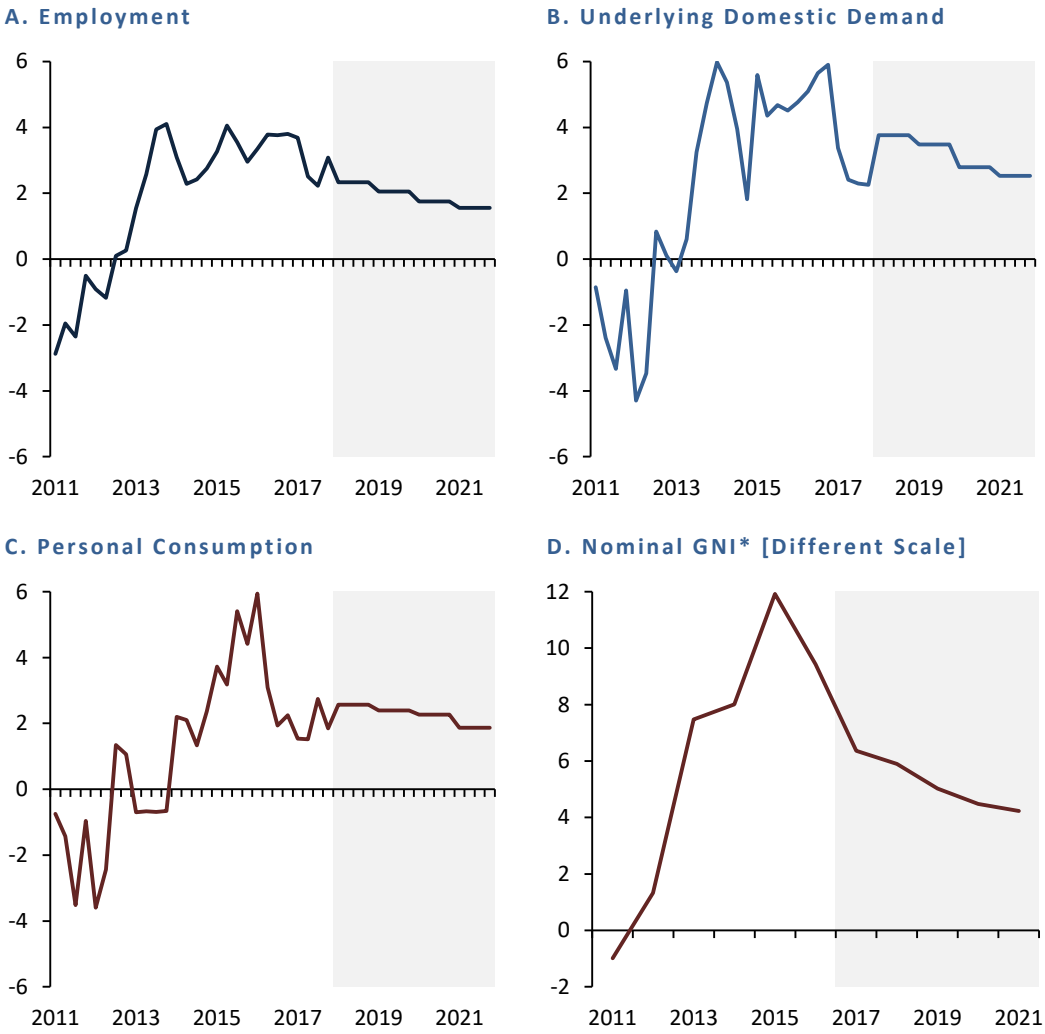
The pace of the recovery in the Irish economy has been rapid since at least 2014, even when leaving aside the activities of foreign-owned companies and focusing on underlying Irish developments. This follows the steep contraction amid the financial crisis from 2008/2009 and a subsequent stagnation in growth up until as late as 2013.

Looking across a number of indicators, the Irish economy still appears to be growing very fast. Figure 1.1 summarises some of the indicators that attempt to look through distortions arising from the activities of foreign-owned multinational enterprises (MNEs), which can often lead to a misleading picture of underlying activity (Chapter 2 assesses the *SPU 2018* macroeconomic forecasts in more detail).

Starting with the labour market, employment has risen by an average of just over 3 per cent year-on-year for five years now and has only recently moderated. Within this, full-time employment has surged as workers take up employment with longer working hours and move out of part-time employment. The rise in numbers in full-time employment is 5.8 per cent for 2017 – the fastest annual increase since 1999.

Figure 1.1: Indicators of Economic Activity

Percentage year-on-year change in volumes, unless otherwise stated



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

Turning to the national accounts, the recovery is also visible in various measures of domestic economic activity. Underlying domestic demand is one useful aggregate given its tax-rich nature and the relatively limited distortions arising from the MNE sector.[1] This has grown by just over 4 per cent per annum on average from 2013 to 2016. While the speed of expansion appeared to moderate to 2.6 per cent last year as business investment was scaled back, the recorded moderation of consumer spending is likely to be overstated. Upward revisions to the initial outturn, which seem likely, would also imply less of a slowdown in the pace of growth of underlying

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

domestic demand during 2017 (Chapter 2). Nominal GNI* – an official measure designed to rid standard macroeconomic aggregates of MNE-related distortions – is estimated by the Department to have grown by 6.4 per cent last year.[2]

The forecasts in *SPU 2018* assume a continuation in the recent momentum in the domestic economy and incorporate a reasonably strong outlook for Ireland's main trading partners. Though the forecasts show that the recent pace of growth is set to moderate over the next three years, it will still remain strong compared to most advanced economies.

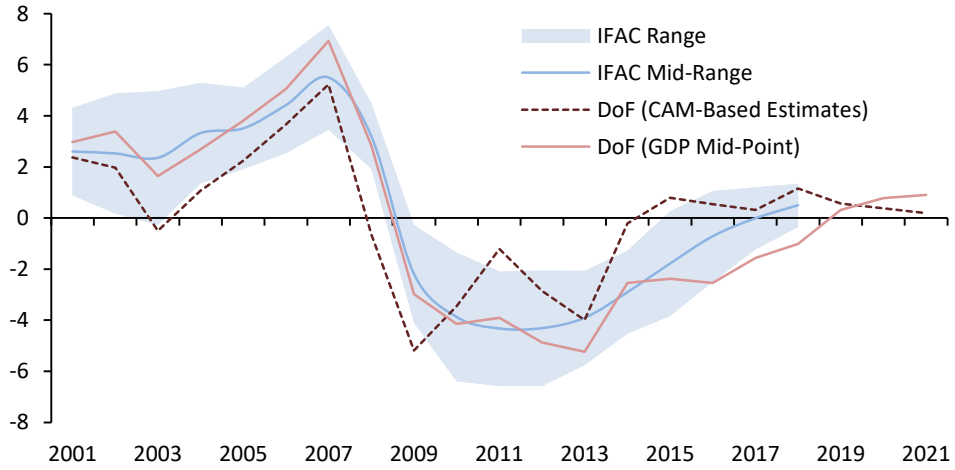
The pace of the recent recovery is supported by a cyclical upswing (Figure 1.2). Although there is much uncertainty, most coherent estimates suggest that domestic economic activity has been growing faster than the economy's potential growth rate since at least 2014. This is reflected in the Council's own suite of models of the output gap, which have closed from a negative position that opened up sharply after 2008. These estimates appear to show that the economy is producing close to its medium-term potential in 2018, while the Department's own preferred range of estimates – published for the first time in the current SPU – suggest that the economy will move beyond its potential in 2019.

The progress made by the Department towards developing new estimates of the output gap for Ireland is a significant step and is welcome (Box D). These estimates should form an essential part of the Department's toolkit for the purposes of producing well-founded medium-term forecasts in future. They should also help to provide a sounder basis for setting the economy and the public finances on a sustainable path. The Council also welcomes the intention of the Department to include these estimates in the headline table of macroeconomic indicators in future endorsement rounds, as well as in the headline tables of macroeconomic indicators for its future SPU and Budget publications. This would see the new alternatives replace those estimates that are based on the CAM, which are not regarded as reliable (but which are likely to continue to be used for fiscal surveillance).

[2] GNI* is an aggregate designed to more accurately capture Irish residents' national income compared to GDP. For Ireland, the standard GDP measure 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. Note that the nominal growth rate for underlying domestic demand in 2017 is estimated by the CSO to have been 5½ per cent – roughly one percentage point below the nominal GNI* growth rate. The CSO have not yet published a GNI* figure for 2017.

Figure 1.2: Ireland's Cyclical Recovery

Output gap estimates (percentage of potential output)



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: The IFAC range is produced based on a variety of approaches. These are outlined in Casey (2018). 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 estimates shown here are based on a range of alternative GDP-based methods.

Both the Council's and the Department's estimates of the output gap are produced using a number of approaches that are more suited to the Irish economy than the standard Commonly Agreed Methodology employed by the European Commission. Moreover, the diversification afforded by applying a range of approaches is a sensible way of reinforcing the robustness of the estimates produced. This is particularly true as the relevance of any single-model paradigm may vary over time (e.g., with the financial crisis) and given that there are obvious limits to the informational content of individual approaches.

While the central scenario depicted in the Department's forecasts is relatively benign, the prospects for the Irish economy are uncertain and there are very different plausible scenarios both on the upside and downside. Chief among these is the risk that Brexit turns out to have a worse-than-expected impact on the Irish economy. A second key risk is that changes to the international tax environment could lead to a slowdown in foreign direct investment or even a potential exit of some large corporate groups that are resident in Ireland. Domestically, a substantive upside risk relates to the burgeoning pressures in the residential construction market where persistent undersupply has been evident. This could well lead to a rapid uptick in housing output. In turn, this could prompt overheating in the economy, where levels of unemployment are already falling steadily.

While the timing of any future slowdown or downturn is hard to predict, it is inevitable that – at some point in future years – the state of the economy will become less favourable than it is today. Box A notes that post-war expansions in employment and output have tended to last around 4½ –6 years on average. The Department's latest forecasts suggest that employment will continue to expand nine years on from its most recent contraction, which ran from 2008 to 2012. Age (or duration) is a poor predictor of turning points, yet there are foreseeable risks and potential imbalances in the economy that should be monitored closely.

Quantifying the impact of the downside risks is difficult given the relatively limited historical precedent for such events. It is therefore important that the Government develops more robust scenario analyses building on potentially more-adverse-than-assumed outcomes relative to its central forecasts. Box C in Chapter 2 examines some of the avenues that should be explored in relation to the possible impact of a large, foreign-owned multinational firm exiting Ireland.

Box A: The Duration of Cycles: Death by Illness, Not by Age

This box examines cycles in economic output and employment to give a sense of how long these typically last.

In the US, the National Bureau of Economic Research (NBER) acts as the official arbiter of the business cycle. It provides timings of peaks and troughs in economic activity. Its definition of recessions is broad and comprises an assessment of many measures of broad activity including real GDP, employment and real income. Correspondingly, expansions are recorded as periods outside of recessions (i.e., between a trough and a peak in output).

Table A.1 shows the typical duration of expansions in output as documented by the NBER. For the longest available period of data up to the financial crisis (1854–2009), the typical length of an expansion in real GDP in the US has been just over three years, with contractions lasting close to 1½ years on average. Looking at the post-war period (1945–2009), the NBER shows that the average expansion duration lengthened to almost five years, with typical contractions shortening to just under one year.

Table A.1: Durations of Expansions in Output and Employment

Country	Source	Sample	No. of Cycles	Contraction (years)	Expansion (years)
Output Cycles					
US	NBER	1854–2009	33	1.5	3.2
US	NBER	1945–2009	11	0.9	4.9
US	IFAC Workings	1948–2009	9	0.5	5.8
Employment Cycles					
US	IFAC Workings	Q1 1948–Q1 2009	10	0.8	4.7
UK	IFAC Workings	Q2 1960–Q1 2009	8	1.0	5.2
Ireland	IFAC Workings	1960–2009	7	2.5	4.4

Sources: NBER; and internal IFAC calculations.
Notes: Durations are taken as an average of the Bry and Boschan (1971) and Markov-Switching model except in the case of Ireland where the latter fails to converge.

Table A.1 also replicates some approaches that are commonly used to identify business cycle durations. First, the Bry and Boschan (1971) dating algorithm is used, which is commonly applied to examine business cycle peaks and troughs. Second, a Markov-Switching model similar to that of Hamilton (1989) is implemented.[3] The average durations from the two approaches are shown (these typically correspond quite closely). For US output, the durations of expansions are similar to those identified by the NBER, albeit a little longer (expansions are estimated as closer to six years whereas contractions are estimated to typically last half a year).

Applying the approaches used for US output to employment, we can derive estimates of employment cycles. The approaches suggest that for the US, expansions in the employment cycle typically last close to five years, with contractions lasting close to one year (very similar to those for output). UK data show virtually the same durations as the US. For Ireland, employment expansions are estimated to average close to 4½ years.

Imbalances and Rigidities Are More Important

While the typical length of expansions and recessions is somewhat informative, it is important to note that these historical averages are drawn from relatively small samples and they may not be good predictors of when an expansion might end. The end of any individual expansion may be said to have more to do with the build-up of imbalances and rigidities in the economy than it has to do with age itself. In other words, the fact that an expansion has lasted for a long time does not tell us very much about the likelihood of a coming recession.

Rudebusch (2016) uses a survival analysis akin to actuarial assessments for people's expected lifespan to assess the end of US expansions historically. The findings suggest that since the 1940s, US expansions into their 80th month (6th year) have the same probability of ending as expansions in their 40th month (3rd year).

Recognising the importance of assessing imbalances in the economy so as to understand the sustainability of the budgetary position, the Council uses a "Modular Approach" (Chapter 2). The Modular Approach involves assessing a broad range of indicators of potential imbalances in the economy. This approach can help to deal with the fact that macroeconomic models tend to have a poor track record in terms of identifying turning points. There are also obvious risks of these occurring over the medium term. In particular, Brexit negotiations could lead to more adverse outcomes for Ireland than expected, while further risks are posed by international tax policy.

Fiscal Context

Against a backdrop of high debt levels, improvements on the budgetary front have slowed in recent years even as the cyclical recovery continues and is reinforced by a number of favourable tailwinds. Non-interest spending has risen at essentially the same pace as buoyant cyclical tax revenue since 2015. This means that the budget balance excluding interest and one-offs has remained close to 2–2½ per cent of GNI* over the period 2015–2017 and it is forecast to stay around this level out to 2021.

Assessing the government's budget balance is complicated by factors such as one-off items; the effects of the cycle; and spending outside of the government's control.

[3] As noted in Owyang *et al.* (2005), a key shortcoming of the BB approach relative to the MS approach is that the magnitude of growth rates needed to trigger a regime shift does not change from state to state, instead remaining constant over time.

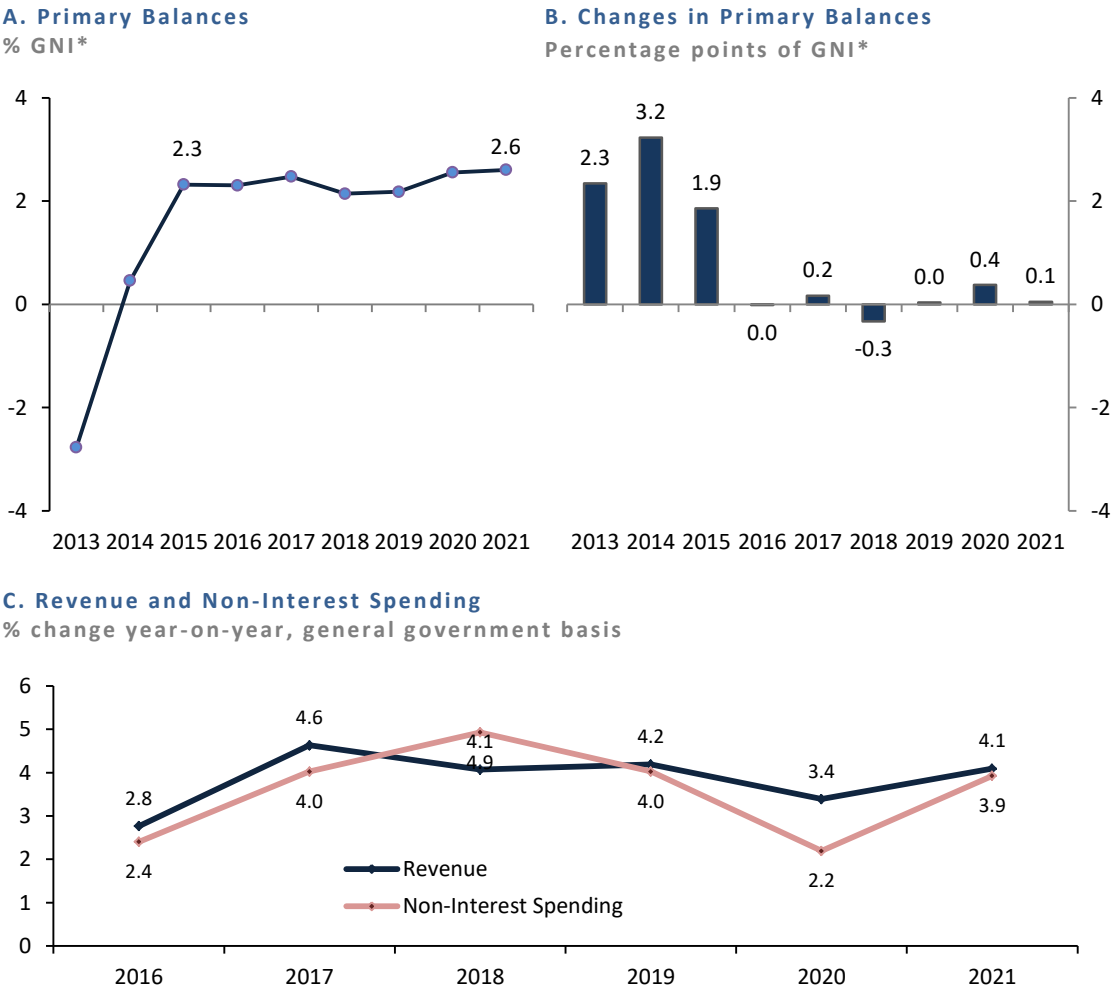
With this in mind, the Council focuses on fiscal aggregates that may be considered useful indicators of how recent or envisaged policies will influence the fiscal stance and debt sustainability.

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 transient items assessed by the Council as unrepresentative of the underlying picture are removed (Table 1.1 provides these one-off items).

Figure 1.3 shows that since 2015, there has been barely any improvement in the primary balance when one-offs are stripped out. The lack of improvement is somewhat surprising considering the ongoing cyclical recovery, which has been supported by a number of favourable tailwinds including an exceptionally loose monetary policy environment; reasonably strong external demand growth; and strong corporation tax receipts.

Chapter 3 highlights how the slowing improvements in the deficit have been partly due to spending drift: the Government has loosened its planned budgetary policy over time as growth turns out to be better than expected. Growth in underlying domestic demand was more than twice the pace that was initially expected over 2015–2017 (taking *Budget 2015* forecasts). At the same time, upward revisions to spending plans across a broad range of non-interest areas over this period amounted to a cumulative €17.8 billion – more than offsetting the higher-than-expected revenues that came in (€17.2 billion). The only expenditure item which was lower than anticipated was interest payments (€4.3 billion) – the driver of the improvement in the headline budget deficit. This would imply that essentially all of the gains from the faster-than-expected recovery over this period, aside from lower interest payments, may have been used for spending increases.

Figure 1.3: The Primary Balance Has Barely Improved Since 2015



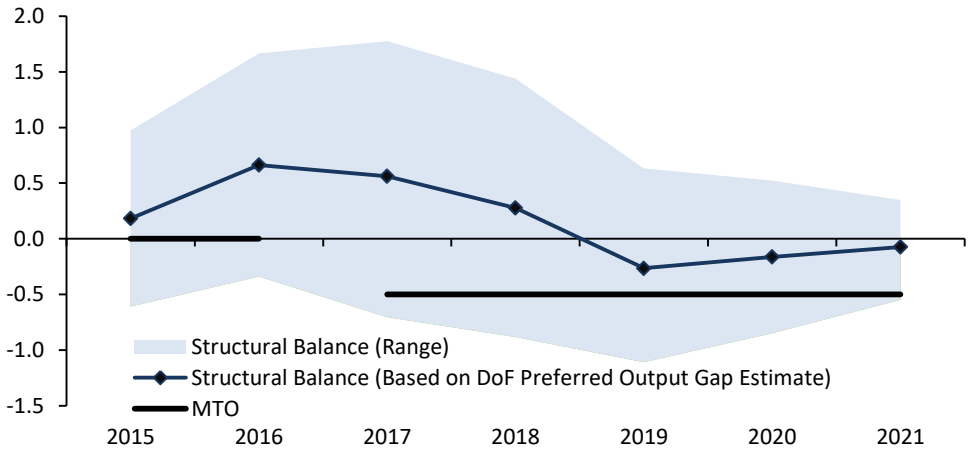
Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Data are adjusted to exclude one-offs as assessed by the Council (Table 1.1). In 2021, a capital transfer of €900 million boosts spending growth from 2.8 per cent to 3.9 per cent (Chapter 3).

An important milestone in attaining the Medium-Term Objective (MTO) of a structural deficit of 0.5 per cent of GDP was attained last year. This achievement has been helped to a large extent by a fall in interest costs over the past three years. Interest costs have fallen by 1.1 percentage points of GNI* from 2015 to 2017, while the budget balance and structural balance have improved by almost exactly the same amount (Table 1.1). From an economic perspective – and in terms of the technical application of the fiscal rules – the Government's budgetary position is close to balance. With the output gap believed to be almost closed, the headline deficit would remain close to its level when adjusted for the cycle. However, there are risks that this position could deteriorate in coming years and a reliance on savings on interest costs could prove unwise.

Using the Department's preferred estimates of the output gap to assess the structural balance would also suggest that the MTO is likely to have been achieved in 2017. On this basis, the structural balance estimates range from –0.7 to +1.8 per cent of GDP as compared to the MTO requirement of –0.5 per cent for 2017 (Figure 1.4).

Figure 1.4: The Achievement of the MTO (assessment using alternative output gap estimates)

Percentage of GDP



Sources: Department of Finance; and internal IFAC calculations.
Note: The range is based on the Department's preferred range of alternative estimates of the output gap used in *SPU 2018* (i.e., those based on GDP). The same semi-elasticity of the deficit to the output gap is used as for the CAM. The MTO is the targeted level of the structural balance.

Ireland's net government debt burden remains among the highest in the OECD and is understated by standard GDP comparisons. When set against a more comparable measure of national income like GNI*, the net debt burden is equivalent to 86.7 per cent, the sixth highest behind only Italy, Portugal, Belgium, France and Japan (Figure 1.5).[4] A similar picture emerges when it is compared to revenue (Ireland's is the fifth highest ratio of annual government revenue at 228 per cent).[5]

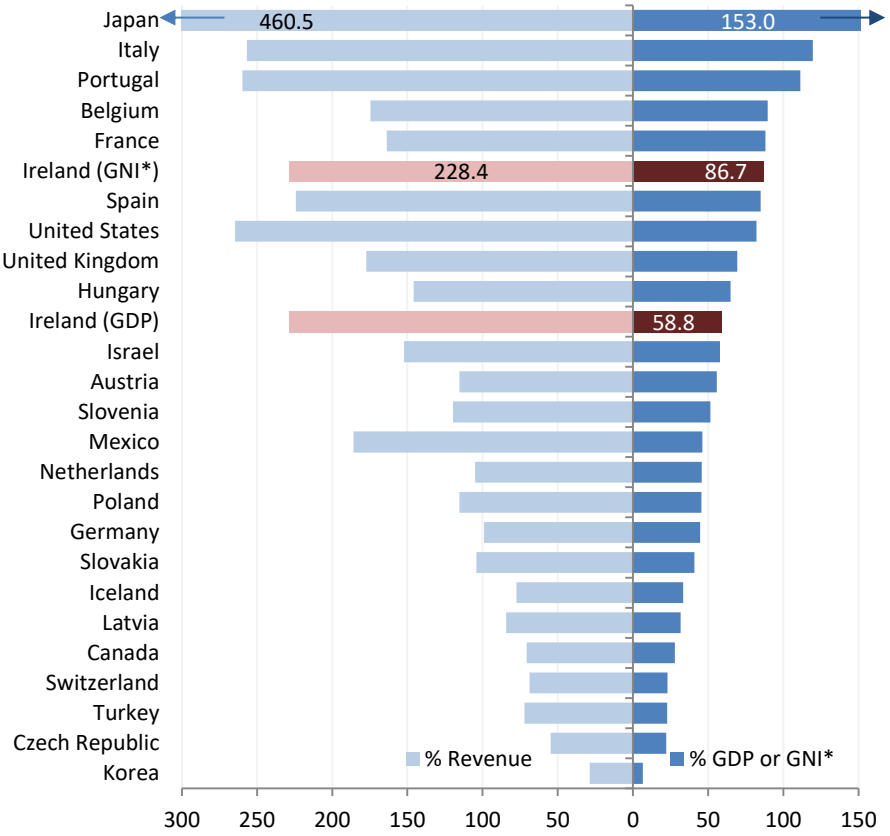
The Government's current plans envisage a steady pace of debt reduction from its current high levels. Figure 1.6 highlights the steep rise in debt ratios post-crisis as sharp losses in transient revenue streams associated with the property/credit bubble coincided with costly banking support measures. The *SPU 2018* plans suggest that net debt levels will fall steadily from 86.7 per cent of GNI* at end-2017 to 76.3 per cent by end-2021, helped by economic growth; low interest costs; and a primary surplus.

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

[5] Debt-to-revenue ratios are problematic as they capture *actual* tax revenue rather 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 those based on distorted GDP data and they are on a like-for-like basis when comparing with other countries.

Figure 1.5: OECD Countries' Net Government Debt

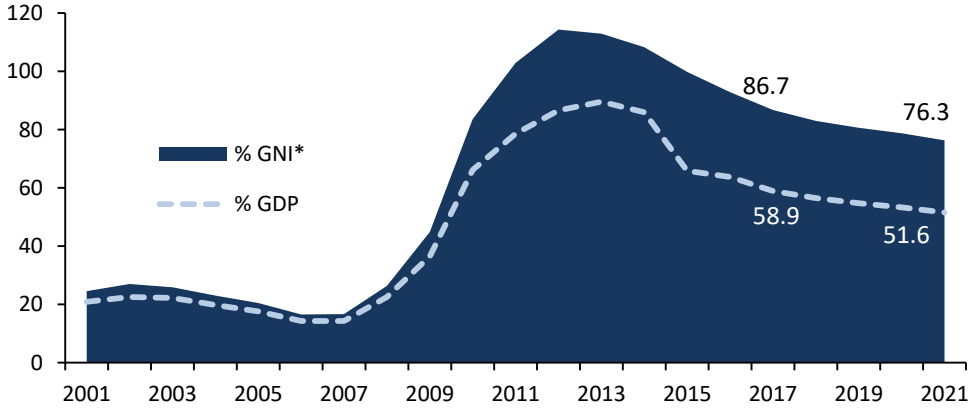
End-2017 net general government debt as % revenue (LHS); and as % GDP or GNI* (RHS)



Sources: CSO; Eurostat; IMF (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 1.6: Ireland's Net Government Debt Levels

% GNI* and % GDP, General Government basis



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

If the average pace of debt reduction envisaged over 2019–2021 were to remain constant from 2021, falling by 2.2 percentage points per annum, the debt-to-GNI* ratio would still remain high by the end of the next decade (i.e., between 50 and 60 per cent), and would be more difficult to achieve if any adverse shocks occurred.

1.3 Assessment of the Fiscal Stance for 2018–2021

Considering the prospects for the economy and the fiscal context, this section assesses the Government's planned fiscal stance for the forecast years.

Fiscal Stance in 2018

Starting with 2018, it would appear that there is a slight deterioration in the underlying fiscal position. The Department's preferred estimates of the output gap show a cyclical upturn in 2018, with the economy growing faster than its potential. The Council's own estimates paint a similar picture. Given the cyclical upturn, the lack of improvement in the headline balance excluding interest costs would appear to mask an underlying disimprovement if one were to look through temporary cyclical effects. Based on the Department's estimates, the structural primary balance (i.e., the budget balance excluding interest costs, one-offs, and the effects of the cycle) looks likely to deteriorate this year by about half a percentage point of GDP – similar to Council estimates (Figure 1.7).

The disimprovement in 2018 reflects non-interest spending being increased at a faster pace (4.9 per cent) than forecast government revenues (4.1 per cent). Non-interest spending increases amount to €3.3 billion over the year. These are mainly reflected in higher public investment (+€1.3 billion in 2018); increased spending by government on goods or services for the purposes of providing their own services (intermediate consumption is +€0.9 billion); and an increase in the overall public sector pay bill (+€0.7 billion). Notably, the increase in public investment in 2018 – at 23.5 per cent – is now forecast to be faster than had been anticipated at budget time, largely as a result of the additional spending outlined in the capital plan and the reclassification of Approved Housing Bodies (Chapter 3).[6]

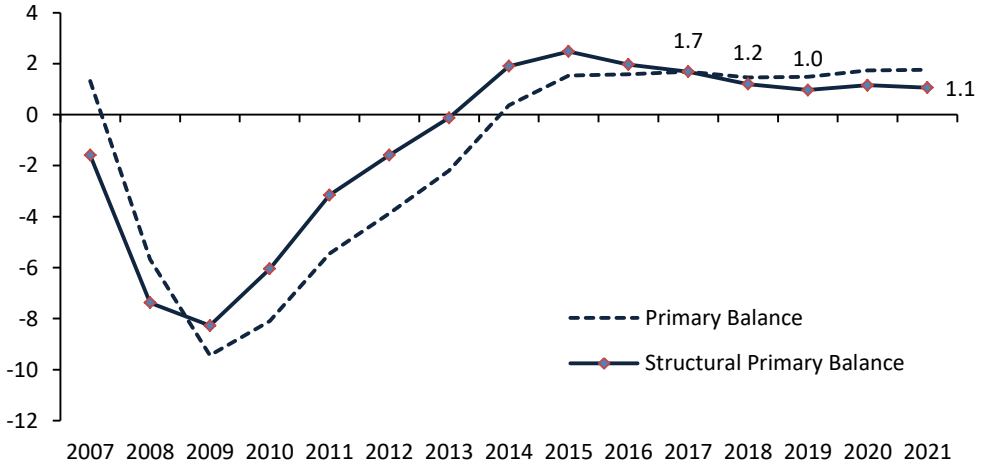
Fiscal Stance in 2019–2021

The budget balance is currently planned to improve to 0.6 per cent of GNI* in 2021 from –0.4 per cent in 2018 – an improvement of 1 percentage point. However, falling interest costs account for 0.5 percentage points of the improvement. Furthermore, a continued cyclical upswing is expected after this year: the output gap is expected to rise by close to 1 percentage point between 2018 and 2021 based on the Council's mid-range estimates. This would imply that the continued

[6] *Budget 2018* forecasts suggested public investment spending of €6.2 billion in 2018, whereas for *SPU 2018*, which incorporates the new capital plan, public investment spending is forecast at €6.8 billion.

cyclical upturn explains the rest of the improvement in the balance over 2019–2021 so that the structural position is broadly unchanged (Figure 1.7).[7]

Figure 1.7: Primary Balance
% GDP, General Government basis



Sources: CSO; Department of Finance (SPU 2018); and internal IFAC calculations.
Note: The structural primary balance strips out one-offs from the headline primary balance (expressed as a share of GDP) and the cyclical component is subtracted as 0.53 × the level of the Council's mid-range output gap estimate (the same approach as adopted for CAM-based estimates).

However, the fiscal rules would allow a further easing of policy as a result of mismeasurement of the cycle, as happened in the 2000s. A key shortcoming of supply side estimates underpinning the fiscal rules is that they are prone to mismeasuring the cycle. This mismeasurement can exhibit a procyclical pattern whereby the allowed pace of growth in spending rises in good times, and falls in bad times. For Ireland, this is obvious from the allowed growth rates for real net spending that would have applied historically (Figure 1.8). It is also visible in other economies, albeit to a lesser extent, which partly reflects the volatility of real GDP growth in Ireland.

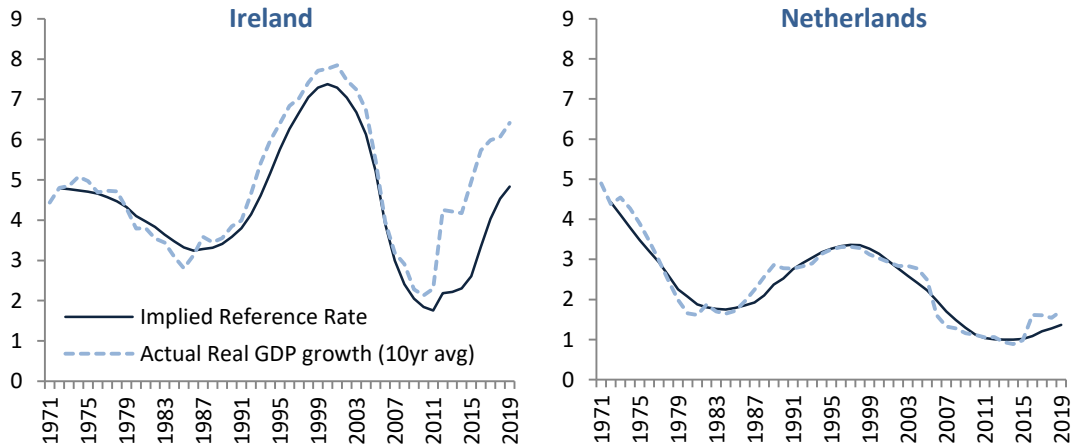
The procyclical application of the fiscal rules means that the allowed pace of growth in net spending is beginning to expand as the cyclical recovery continues. Already, the estimates of "sustainable growth" rates that underpin the fiscal rules have risen to close to 4½ per cent in 2018 even before inflation is considered – the upper range of estimates of potential output growth for the Irish economy – and they are rising from one vintage to the next. This results in rising amounts of fiscal space being estimated as allowable over time.

[7] Note that this assumes that the responsiveness of the deficit to the Department's new output gap estimates is the same as estimated for the CAM.

The government has correctly set out a budgetary stance that is more cautious than the fiscal rules. While some of the expanded fiscal space has been allocated to additional investment spending (as outlined in the capital plan), other amounts remain unallocated. The unallocated amounts of fiscal space under the government's plans are back-loaded to the later years of the forecast horizon. Given recent spending drift and likely spending pressures in later years (see Chapter 3), it may be challenging to pursue these policies.

Figure 1.8: Procyclicality of Allowed Real Spending Growth Rates Under the Fiscal Rules

% change year-on-year



Sources: European Commission (Autumn 2017 estimates); internal IFAC calculations.
Note: Data show the implied allowed real spending growth rates based on ten-year averages of the estimated potential output growth rates derived using the Commonly Agreed Methodology.

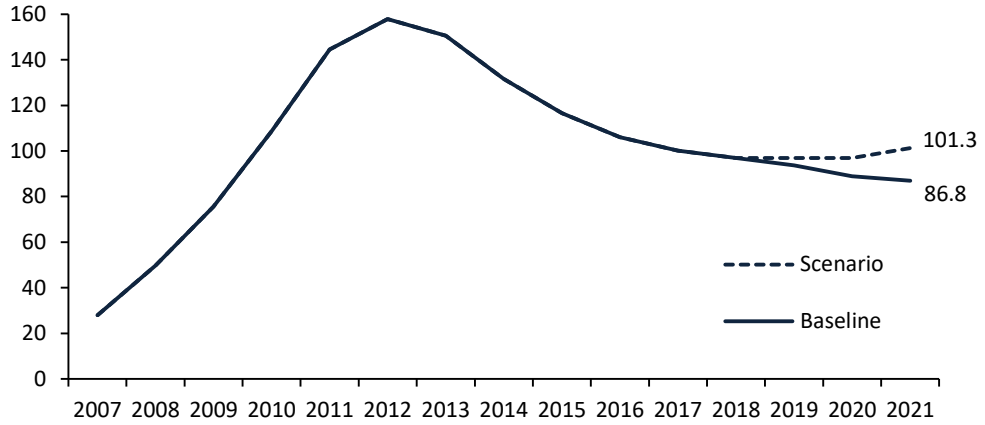
There are good reasons why a loosening in current fiscal plans in coming years should be avoided. With debt levels high and large downside risks on the horizon, revenues arising from any short-run cyclical upturn would be better used to build safeguards against adverse shocks in future. In particular, Brexit and potential changes to the international tax environment would caution against current plans being loosened further. Such shocks could have sustained negative effects on the economy that could make debt reduction more challenging over the long term. Should these risks materialise, this would imply that expenditure would need to adjust to a lower path or tax would need to rise. The Council's advice is intended to avoid the need for any such retrenchment.

The steady pace of debt reduction in *SPU 2018* is broadly appropriate, but there are risks to the trajectory, especially from growth. One scenario could see a sharp and sustained reduction in growth rates relative to *SPU 2018* forecasts. 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 (Box C). Assuming a typical forecast error for each of the years 2019, 2020 and 2021, the debt-to-GNI* ratio could stagnate at levels above 100 per cent of GNI*, absent any policy response. This compares to a planned reduction to 86.8 per cent (Figure 1.9). With debt at high levels, the impact of such shocks on creditworthiness can be more pronounced.

Figure 1.9: Illustrative Shock Scenario from 2019 Onwards

Gross debt as % of GNI*, general government basis



Sources: CSO; Department of Finance (*SPU 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 (-2pp 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.

There are also important upside risks to the forecasts in the next couple of years. In particular, these relate to the potential response of the residential construction sector to persistent supply shortfalls. The resulting employment and income growth would be expected to add substantially to cyclical tax revenues, while the economy already looks to be operating close to its potential. It may be necessary to counteract any associated overheating through offsetting measures elsewhere. The Government should take account of the fact 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 *SPU 2018* materialise) would not necessarily be permanent in nature.

A better use of resources from any cyclical upswing would be to use such revenues to build additional buffers (as in the Rainy Day Fund) or to reduce debt at a faster pace.

This is also true of potentially unsustainable revenue sources such as higher-than-expected corporation tax receipts.

Statements from the Minister for Finance and Public Expenditure and Reform have emphasised the importance of focusing on the "right budgetary stance" rather than on the amount of fiscal space available under the rules.[8] Focusing on the right budgetary stance and taking a view that is broader than the limits allowed under a technical application of the fiscal rules is the correct approach for the Government to follow. One way to assess this over time would be to establish whether current plans are followed through on rather than being loosened in later years. This follow-through will prove challenging should a stronger-than-expected economic performance and higher revenues materialise as pressures for further spending increases emerge.

Savings on interest costs should not be relied on to generate improvements in the budget balance. Whereas the primary balance shows minimal changes under *SPU 2018* plans, the overall balance is forecast to improve by a full percentage point of GNI* over the period 2017–2021. This primarily reflects the fact that interest costs are forecast to fall by an amount equivalent to 0.9 percentage points of GNI*. With interest rates already at multi-century lows, this raises questions about the long-term sustainability of these improvements.

An appropriate starting point for next year's budget – and for all budgets – is a consideration of what is sustainable. This should be informed by appropriate estimates of Ireland's long-term potential growth, the expected government balance and the cyclical position of the economy. The government is close to running a balanced budget, the economy is experiencing rapid growth, and it is close to its potential level of output.

In such circumstances, the case for additional fiscal stimulus is weak and the appropriate policy would be to increase government expenditure broadly in line with the long-term potential growth rate of the economy. This could be the Department's preferred estimates of real potential output growth, which average close to 3 per cent per annum over the forecast period 2019–2021. These are similar to the Council's

[8] See, for example, *Budget 2018* Statement of the Minister for Finance and Public Expenditure and Reform Mr. Paschal Donohoe T.D. 10 October 2017 p.4.

own estimates of 3¼ per cent as well as recent estimates produced by the ESRI.[9] Considering the forecast for economy-wide inflation (1.3 per cent), estimates such as these would imply a sustainable nominal growth rate for government spending net of tax measures of – at maximum – 4½ per cent for 2019. One can translate this growth rate into an approximate limit of up to €3½ billion for spending increases or discretionary tax cuts (i.e., the "gross fiscal space") as the starting point for any budgetary plans for 2019.[10]

Anything more expansionary than this suggested maximum limit is not likely to be appropriate. Recognising the strong growth in the economy, the risks to the macroeconomic outlook, and the vulnerability of the public finances to shocks, consideration could also be given to a tighter policy.

For 2019, this means that an appropriate stance would be for the Government to stick to its existing spending plans. Given existing spending commitments and the planned contribution to the Rainy Day Fund, this means more limited scope for additional measures in Budget 2019. The Department estimates that spending pre-commitments of €2.6 billion have already been made for 2019.[11] This isn't necessarily the correct estimate to compare against the approximate limit of up to €3½ billion but it does highlight that there is limited scope in the next budget. Any further expenditure increases should be funded by revenue-raising measures or real efficiency gains that are sustainable over the long run. Any positive surprises to revenue or unexpected savings should go to improving the budget balance.

A repeat of both the recent and historical loosening of budgetary plans in good times must be avoided. In recent years, there has been a consistent pattern of upward revisions to expenditure ceilings observed (Chapter 4). This is similar to what happened in the 2000s, albeit that the scale is relatively smaller. The next section sets

[9] Simulations using the ESRI's model COSMO (McQuinn *et al.,* 2017) also 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).

[10] The Expenditure Benchmark sets a limit for annual spending growth while allowing for the impact any tax measures introduced. To overcome mismeasurement issues related to the cycle, one can use preferred alternative estimates of the economy's potential growth rate such as those developed by the Department – provided that these are formed on reasonable basis. It can also be assumed that the change in cyclical unemployment benefits is given by the difference between forecast unemployment rates and the Department's view of the natural rate of unemployment (5.5 per cent) rather than the difference with the CAM-based NAWRU.

[11] See the Response to the Select Committee on Budgetary Oversight available at: https://www.finance.gov.ie/wp-content/uploads/2018/05/respopnse-to-BOC-expend.pdf

out some solutions for dealing with the challenges of running the right budgetary stance over the medium term.

1.4 Setting an Appropriate Fiscal Stance for Beyond 2021

A number of key challenges remain as Ireland exits its latest crisis and the Government needs a credible plan for the medium term to deal with these. In particular, there is a danger that the current policy set is not adequately equipped to prevent a return to procyclical fiscal policy.

Sensible policy tools set up to help with medium-term budgeting are only half-formed and need more consideration if they are to be effective. Two useful innovations in the Government's armoury are the Rainy Day Fund (RDF) and the medium-term debt target. Both were set up with a view to pursuing a more prudent budgetary stance and helping to avoid a repeat of past policy mistakes. These should be helped by the progress that the Department has made on developing its own alternative estimates of potential output. Yet the designs of the RDF and the debt target are lacking in many key respects and need closer attention.

There are a number of solutions that should be pursued:

- First, the Government should make an explicit commitment to adhere to what it sees as a sensible medium-term path for spending growth (net of discretionary revenue measures). This could be operationalised on the basis of – at a minimum – following the spending rule (the Expenditure Benchmark) even after the MTO is met and it should be informed by the Department's own medium-term estimates of potential output growth.

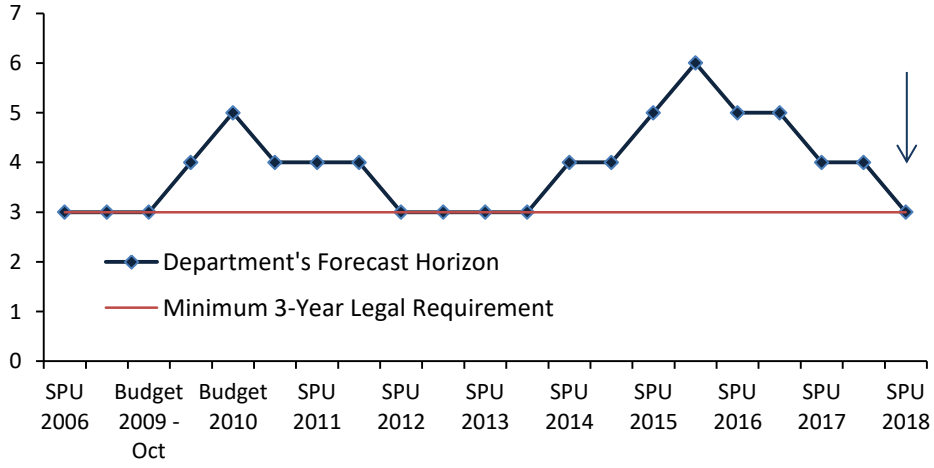
- Second, the proposed design of the Rainy Day Fund should be strengthened. The Rainy Day Fund should be foremost a truly countercyclical fund – one that dampens swings in the cycle and alleviates procyclicality in the rules rather than just allocating fixed contributions regardless of this. A recent IFAC working paper outlines how relatively modest changes in the fiscal rules would help to achieve this (Casey *et al.*, 2018), and Box B examines the implications of this approach in terms of the potential size of the fund.

- Third, the forecasting horizon should always be at least five years to maintain a medium-term focus. The Department has narrowed its outlook by

shortening the horizon over which it forecasts. It has opted not to extend its medium-term plans in 2½ years. As such, it is now forecasting only three years ahead, to 2021 (the bare minimum in terms of EU legal requirements). For context, *Budget 2016*, which was released in October2015, was forecasting as far ahead as 2021: the same endpoint as for current plans (Figure 1.10). This risks complacency seeping into medium-term planning and future publications should extend the horizon back to a five-year-ahead basis.

Figure 1.10: The Department Narrows its Outlook

Forecast Horizon in Years



Sources: CSO; Department of Finance (various publications); and internal IFAC calculations.

- Fourth, the Government's medium-term debt target, which aims for a debt level of 55 per cent of GDP over an unspecified timeframe, would be better specified if it were: (1) clearly time-bound; (2) set against a more appropriate denominator than GDP; (3) set as a ceiling rather than as a target; (4) committed to in a credible manner; and (5) actually set at a low or prudent level. As it stands, the Government's debt target has a number of shortcomings. It is set against the distorted GDP denominator, which the Department acknowledges is inappropriate. It is predicated on vaguely specified time commitments, which potentially would be met only over a very long period.[12] It is also not clear if the targets are hard targets or ceilings or whether these will account for cyclical developments in any way.[13] The idea that staying close to a 55 per cent target is more prudent than 60 per cent does not stand up to much scrutiny. Well-documented distortions to GDP in

[12] For example, *SPU 2017* applied the target for the "mid-to-late 2020s", while *Budget 2018* suggests the 45 per cent target will apply only "once the major capital projects have been completed".

[13] The 60 per cent ceiling in the *SGP* is also a maximum ceiling, not a target. It is also worth noting that the Government's original targets were not very credible (lasting only six months before being revised up from an original 45 per cent target in *Budget 2017* to 55 per cent in *Budget 2018*).

Ireland, Ireland's economic volatility, the government's wider balance sheet, long-term expenditure pressures and pension commitments might lead one to conclude that a lower debt level would be more prudent.[14]

Box B: The Appropriate Size of the Rainy Day Fund

This box examines the design of a Rainy Day Fund in terms of what is proposed in Casey *et al.* (2018). Specifically, it looks at one possible scenario for the potential size of the fund if it were to be operated on an appropriately countercyclical basis.

If the Rainy Day Fund is to be a truly countercyclical fund, it would need to be able to smooth through the changes in allowed spending growth rates over time. As noted in Casey *et al.* (2018), allowed spending growth under the fiscal rules tends to exhibit an excessively procyclical pattern: allowing growth rates that are too fast in good times, and too slow in bad times. If compared to the economy's long-term trend growth, this means that government spending is allowed to increase at an excessive pace in expansions, potentially leading to forced retrenchments in downturns (resulting in, for example, much slower spending growth or cuts to spending and tax increases).

Illustrative Size of the Rainy Day Fund

The Rainy Day Fund represents a good opportunity to promote a more countercyclical policy in Ireland. If run effectively, its size would primarily depend on the nature of the cycle. A longer or more pronounced expansion phase would – all else equal – imply larger reserves being accumulated in the fund, whereas a shorter or less pronounced expansion phase would mean much lower reserves being accumulated.

Predicting the nature of a future cycle is virtually impossible and it would be wise to remain agnostic about this. In any case, the design of the Rainy Day Fund proposed in Casey *et al* (2018) looks through this issue. Instead of setting policy on the basis of what the cycle is expected to look like, the Rainy Day Fund should be flexible to how the cycle actually evolves. The proposal put forth suggests that a government take some – not necessarily the correct – view on what sustainable growth rates for the economy are likely to be over the long term and grow spending at this "desired" pace. Fluctuations in the "allowed" pace of spending growth can then be smoothed through, with contributions made to the Rainy Day Fund when the allowed pace exceeds the desired pace. Correspondingly, withdrawals can be made from it when the allowed pace falls below the desired pace.

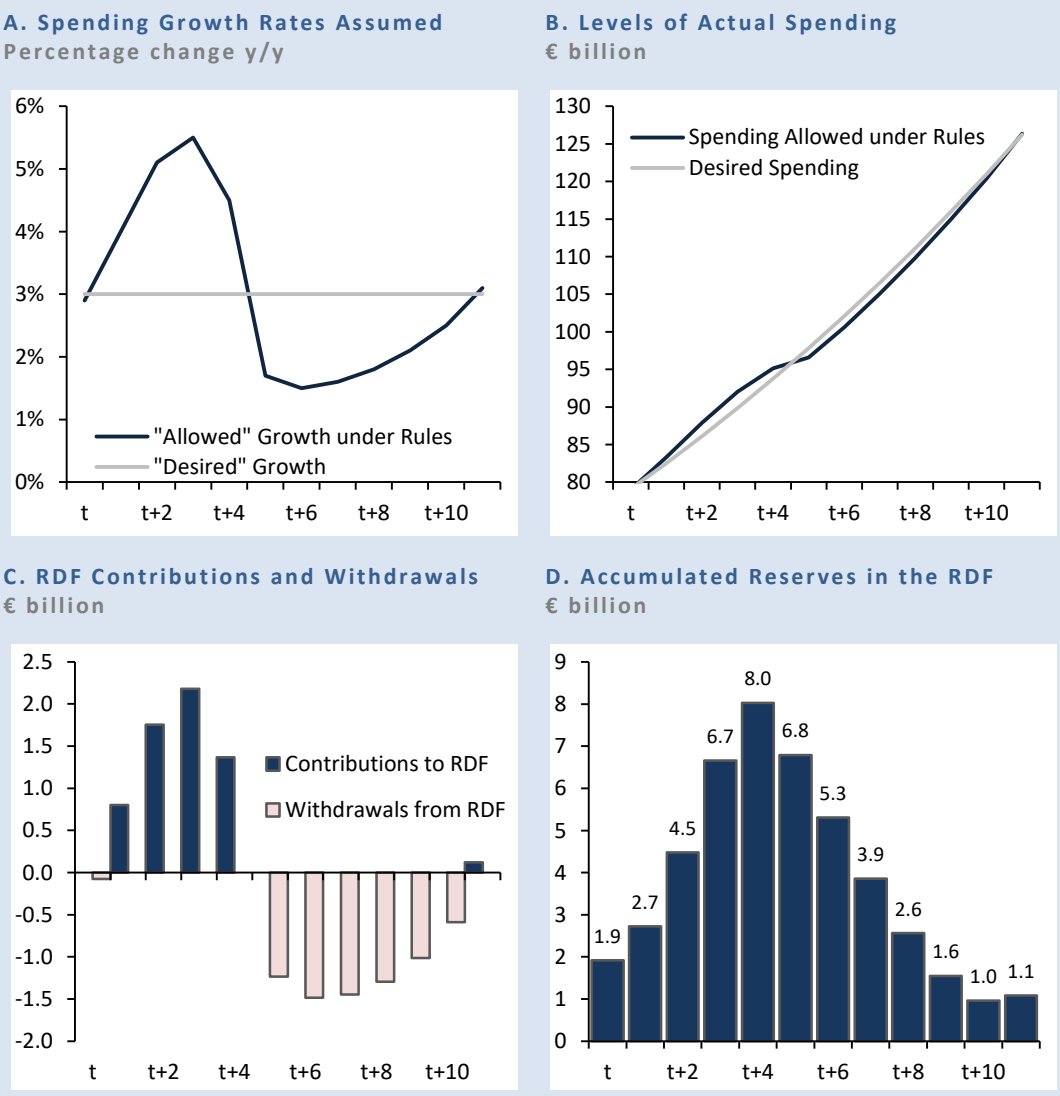
To illustrate this, and to give a relatively realistic sense of the potential size of such a fund, Figure B1 shows how the proposal would look over a potential 12-year cycle for Ireland.[15] An expansion phase is assumed to start in the first year (year t); a recession follows in years 5 and 6 (t+5 and t+6); before an expansion begins again. Spending begins at €80 billion – close to the level currently forecast for 2019 (corrected for the standard adjustments made under the spending

[14] Using 2016 data, a 55 per cent debt-to-GDP target is broadly equivalent to 80 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 compared with international norms. Moreover, it is anchored in terms of *SGP* commitments specified on the basis of GDP. Ireland has a volatile history in terms of its debt dynamics as shown in Box H (IFAC 2017c), which would argue for setting a debt ceiling below *SGP* limits (these are primarily set with larger EU Member States in mind). 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, implying far more volatile debt dynamics from year-to-year.

[15] Durations are broadly similar to standard business cycles as documented in Box A.

rule) and it is assumed that the Rainy Day Fund starts with reserves of €2 billion.[16] The typical range of allowed real growth rates for spending in Ireland over a long time period is quite large. Current estimates show it falling to as low as 1.8 per cent in the recent downturn and rising to as high as 7.4 per cent at the start of the 2000s. These rates were likely distorted by the financial crisis as well as by the convergence and bubble periods pre-crisis. Both phases may have been unusual in an historical context and are unlikely to be repeated again in the medium term. We therefore examine a narrower range of 1.5 per cent to 5.5 per cent. Inflation, given by the GDP deflator, is assumed constant at 1.3 per cent per annum. The desired spending growth rate is assumed as the average of allowed growth rates over the 12 years (3 per cent).

Figure B.1: Illustrative Scenario for a Countercyclical Rainy Day Fund (RDF)



Sources: Internal IFAC calculations.

Note: This is an illustrative exercise. The actual level of reserves that would be accumulated in the Rainy Day Fund under the proposal in Casey *et al* (2018) would vary according to the depth and duration of any cyclical upturn and downturn and according to the pace of desired spending growth set out.

The scenario is summarised in Figure B.1. Panel A shows that allowed growth rates under the rules fluctuate around the assumed desired growth rate: rising above it in the expansion phase, and falling below it during and after the recession. Panel B shows the levels of spending

[16] These corrections include one-offs; interest costs; government expenditure on EU programmes which is fully matched by EU funds revenue; the smoothing of public investment spending; and the estimated cyclical cost of unemployment benefits.

consistent with both growth rates. It is possible to see how spending allowed under the rules rises above the desired level during the expansion phase and is forced below it during and after the recession.

Panel C shows how the Rainy Day Fund would operate during this period. As allowed spending growth rises to a higher-than-desired pace, increasing contributions are made to the Rainy Day Fund to offset this. Similarly, as allowed spending growth falls, withdrawals are made to bring spending back up to the desired level. Panel D shows what this means for accumulated reserves in the fund. Starting at a level of €2 billion, the fund expands with the cyclical upturn and rises to €8 billion at the peak of the boom. When the recession hits, withdrawals are made and reserves are run down to €1 billion before additional contributions are made in the ensuing expansion.

It is important to note that this is just one scenario and there are a host of plausible scenarios for any given cycle. The €8 billion of resources at peak in this illustration could rise to levels a lot higher if the cycle is more pronounced and more persistent than assumed. Correspondingly, it could be lower if the next cycle is more muted or short-lived. To deal with the associated uncertainties, the design of the fund should be flexible to how the cycle evolves, as demonstrated in this approach.

2. Endorsement and Assessment of Macroeconomic Forecasts

Key Messages

- The Council endorsed the *SPU 2018* macroeconomic forecasts for 2018–2021 produced by the Department of Finance. The Council also verified the application of the modified Commonly Agreed Methodology, as estimated by the Department.

- The Council welcomes the Department's publication of alternative estimates of the output gap for the Irish economy. Although not assessed within the scope of the Council's formal endorsement for *SPU 2018,* these measures should feature as headline indicators of economic performance in future Department publications. As a key input to setting fiscal policy, the alternative output gaps should be included for assessment under future endorsements.

- The forecast horizon in *SPU 2018* only extends out to three years ahead (2021), whereas previous Department publications have forecast out to five years ahead. Medium-term forecasting out to five years should be resumed.

- While *SPU 2018* forecasts a gentle easing of growth to around 3 per cent in the medium term, concerns remain over short-term risks from overheating and a number of medium-term downside risks. In particular, the exit of a large, foreign-owned multinational firm from Ireland poses significant risks. Corporation tax receipts would be particularly vulnerable to such an exit, given the high concentration of payments among the top ten contributing firms, amongst other direct and indirect impacts.

- Although near-term growth forecasts for some of Ireland's main trading partners have improved in recent months, much uncertainty remains on prospects for growth in the UK. The expected impacts of Brexit on the Irish economy may also be underestimated by model-based estimates. Assumptions included as inputs to such models may

not fully capture the extent of the two countries' closely integrated supply-chain networks, amongst other relevant features. If the EU and the UK do not reach agreement regarding a transition arrangement, the near-term risk of a "hard Brexit" remains significant.

2.1 Introduction

The Council's tenth endorsement exercise assessed macroeconomic projections prepared by the Department of Finance, as contained in *SPU 2018*.[17] The timeline for this endorsement process is detailed in Appendix A. The Council monitors developments in the Irish economy on an ongoing basis. The identification of potential risks and economic imbalances requires careful and continuous analysis.

Box C describes the potential impact of a large, foreign-owned multinational firm ceasing operations in Ireland, considering potential direct effects on tax revenue, employment, earnings and gross value added. The key developments leading to the Department's publication of alternative supply-side estimates of the Irish economy in *SPU 2018* are discussed in Box D. The Council has consistently advocated such alternatives as essential to provide a sound basis for setting the economy and the public finances on a sustainable path (IFAC, 2017a).

2.2 Endorsement of *SPU 2018* Projections

This section details the tenth endorsement exercise undertaken by the Council, covering the macroeconomic forecasts in *SPU 2018* and outlining the Council's considerations around the time of the endorsement.[18]

The demand-side macroeconomic forecasts contained in *SPU 2018* are assessed as being within an endorseable range for 2018–2021, 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.

Methodology

Regarding the Department's approach to demand-side forecasting, the Council is satisfied that it broadly conforms to standards set by other forecasting agencies.

[17] The endorsement function is outlined in detail in IFAC (2013) and in IFAC (2014a). As the SPU represents the national medium-term fiscal plan, the endorsement related to it covers a longer time range than that of the Budget. Benchmark projections prepared by the Secretariat form a key part of the endorsement process (see IFAC, 2013 and 2014a). In addition to discussions with Council members, an important input into the preparation of the Benchmark projections involves rounds of discussions with other external forecasters, coming from a wide variety of different perspectives. For this round of forecasts, the Secretariat held discussions with economists and forecasters at the Central Bank of Ireland and Investec. The Secretariat also met with the CSO to gain further insights into recent National Accounts and Balance of Payments data.

[18] Data available at that time may differ from that available for the purposes of this assessment.

Although prone to mismeasurement of the Irish economy's supply side (see Boxes B and E in IFAC, 2017e), the EU Commonly Agreed Methodology (CAM) has remained central to assessment of compliance with the fiscal rules. At a late stage in the endorsement process for *SPU 2018*, the Council was informed of changes to the CAM's usual implementation by the Department of Finance, introducing dummy variables in 2017 that mitigate the impact of strong GDP growth in that year on the output gap. A similar approach had been implemented to alleviate the effects of significant distortions contained in the 2015 outturn data. However, the case for applying these dummy variables is not as compelling as it was for the 2015 data. In particular, provisional outturns for 2017 did not indicate significant onshoring activity of intellectual property by foreign-owned multinational firms in Ireland – as occurred in 2015 – and the variability of growth was in line with normal volatility.

The primary motivation for the inclusion of the dummy variables for 2017 was to obtain a more plausible output gap estimate. However, the inclusion of dummy variables for many different years may be highlighting a greater problem – that is, the possibility that using GDP as the standard input for deriving Ireland's potential output might not be appropriate, given that it is subject to regular and large distortions. Efforts to provide a more realistic assessment of the economy should focus on alternative measures of potential growth, rather than modifications to the CAM. Details of progress made in this regard are described in Box D, and the Council welcomes the intention of the Department to feature alternative estimates in the headline table of macroeconomic indicators in future endorsement rounds.

While it was unclear at the time of the endorsement whether the European Commission would also adopt the approach for their Spring 2018 forecasts, the Council nonetheless verified the application of the CAM, consistent with the adjusted methodology. Since that time, the Commission has published its Spring 2018 forecasts and informed the Council of its decision to adopt similar (although not identical) adjustments to the CAM methodology in their estimates.

Pattern of Recent Forecast Errors

In assessing whether a pattern of errors exists in the Department's projections, the Council has found no systematic pattern in recent forecast errors. The Council notes that outturn data for certain components of external trade have been stronger than expected in recent years, in particular for services exports. However, it is difficult to

ascertain the real economic activity underlying these outturns, and the data are prone to significant volatility and revisions.

Comparisons with the Council's Benchmark Projections

As noted in Chapter 1, the forecast horizon has shortened in recent Department publications, with *SPU 2018* covering just three years ahead (to 2021). The Council would welcome a return to forecasting out to five years ahead, in order to provide a consistent view of projections over the medium term, and to ensure continued emphasis on identifying risks or potential economic imbalances in real time.

Comparison between *SPU 2018* forecasts and the Council's full set of Benchmark projections (Appendix B) reveals some differences over the forecast horizon. In particular, forecast growth in 2018 is somewhat lower than the Council's Benchmark projection. Nonetheless, the Department's growth forecasts are assessed to be within an endorseable range.

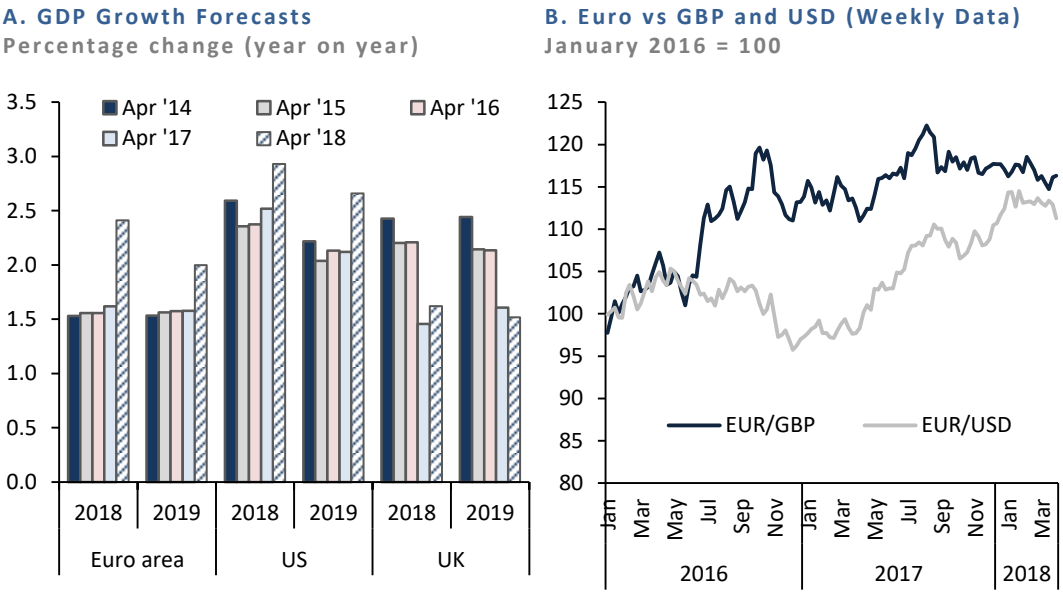
2.3 Assessment of the Macroeconomic Forecasts in *SPU 2018*

2.3.1 Macroeconomic Context

Strong growth has been a consistent feature of the Irish economy since the recovery began. Employment growth rates remain robust and near-term expectations are for a moderating rate of growth in domestic demand. Output is close to its medium-term potential path. Capacity constraints have arisen across various sectors of the economy, in particular for housing, where rents and prices have been growing at an average rate of over 8 per cent since 2012. Wages and prices more broadly have remained subdued, however, despite a continuously falling unemployment rate since 2012.

External demand conditions have remained relatively stable for Irish exporters in recent months. GDP growth forecasts for the Euro Area and US have been rising, despite some softness in recent data. As shown in Figure 2.1A, recent IMF forecasts for 2018–2019 see faster growth than previously expected. Forecasts for the UK suggest that the economy is on a weaker growth trajectory, with weaker consumption growth and weak investment, likely reflecting prospects of Brexit.

Figure 2.1: Trading Partner Growth Forecasts and Exchange Rates



Sources: IMF *World Economic Outlook* and Datastream.

In currency markets, the euro has been trading within a tight range in 2018 (Figure 2.1B). While the weakening of the US dollar against the euro during 2017 was an unhelpful development for Irish firms selling into the US, the previous three years had been amongst the strongest for the dollar since 2003. More significantly for indigenous Irish exporters, the EUR/GBP exchange rate has stabilised lately – although sterling remains about 15 per cent weaker than its early 2016 level.

The assumptions in *SPU 2018* regarding the impact of Brexit on the Irish economy are somewhat more favourable than were those contained in *Budget 2018*. While the Department's baseline Brexit assumption is that the UK will leave both the EU Customs Union and Single Market in favour of a free-trade agreement (to be agreed in 2021), the main expected near-term impact of Brexit has been deferred from 2019 to 2021, in expectation of a transition arrangement being agreed. Furthermore, it is assumed that an agreement similar to the recent Canadian-EU trading arrangements will begin from 2021 onwards. If realised, such an arrangement would limit any changes to UK–EU trading and other relationships to (at earliest) the final year of the forecast horizon, 2021.

However, there has been much uncertainty surrounding the prospects for a transition arrangement since EU-UK negotiations progressed beyond their initial phase in December 2017. Compounding such near-term risks, the expected medium-term impact on the Irish economy of Brexit included in the Department's forecasts (and

forecasts of other agencies) could be understated.[19] Doubts remain over whether the assumptions included in model-based estimates will accurately reflect the scale of logistical and regulatory challenges likely to be faced by the Irish economy under a "hard Brexit". In particular, the extent of disruption to supply-chain interlinkages could hamstring growth significantly, and the labour intensity of Irish exports to the UK could lead to an underestimation of the impact of Brexit on Ireland. A less benign outcome may result in the imposition of large WTO tariffs from April 2019 onwards, which would pose a significant threat to Irish businesses.

Further risks to external demand include the potential for reduced global trade due to the adoption of protectionist measures in key trading partners, and geopolitical tensions. These and other external risks are discussed later in Section 2.4.

2.3.2 *SPU 2018* Short-Term Forecasts, 2018–2019

The key elements of the demand-side forecasts for 2018 and 2019 contained in *SPU 2018* are described in this section. Component overviews of domestic demand and net exports are included, followed by analysis of overall aggregate demand. A moderation of strong growth rates is forecast in 2018 and 2019, while the contribution to growth from underlying domestic demand is expected to rise, as shown in Table 2.1.

Domestic Demand

Preliminary outturns for **personal consumption** in 2017 were softer than expected, expanding by 1.9 per cent. Goods consumption grew by 4.6 per cent, whereas the first estimate of services consumption shows a marginal decrease for the year (-0.1 per cent). However, some of the reported services consumption weakness is likely to reflect timing issues on data availability. New estimates of imputed rents and insurance are expected to result in upward revisions. This could potentially add around 1 percentage point to the volume of total consumption growth in 2017. Reflecting this, *SPU 2018* consumption growth forecasts have been generated on the basis of an assumed upward revision to the 2017 outturn. Expected growth rates in

[19] Such risks include, for example, the strong assumption that a shock to growth in the UK is equivalent in terms of its impact on Ireland to a shock to an average trading partner.

2018 and 2019 are similar to the expected outturn for 2017, and in line with forecast growth in personal disposable income.[20]

Table 2.1: *SPU 2018* Macroeconomic Forecasts (to 2019)
Percentage change in volumes, unless otherwise stated

	2017[a]	2018	2019
Aggregate Demand			
GDP	7.8	5.6	4.0
…of which (underlying contributions)			
Domestic Demand[b] (p.p.)	1.4	2.0	1.9
Net Exports[b] (p.p.)	6.4	3.6	2.1
GDP Deflator	-0.3	0.0	1.3
Inflation (HICP, %)	0.3	0.8	1.0
Nominal GDP	7.5	5.6	5.4
Nominal GDP (€ billion)	296.2	312.8	329.6
GNP	6.6	5.6	3.7
Nominal GNI*	6.4	5.9	5.0
Domestic Demand			
Personal Consumption	1.9	2.6	2.4
Investment	-22.3	8.5	7.4
Underlying Investment	5.7	10.3	9.1
Government	1.8	1.9	1.9
External Demand			
Exports	6.9	6.9	5.4
Imports	-6.2	6.6	5.9
Current Account (% of GDP)	12.5	12.2	11.4
Trade Balance (% of GDP)	32.1	31.6	31.1
Labour Market			
Population	1.1	1.3	1.4
Employment	2.9	2.7	2.3
Unemployment Rate (% Labour Force)	6.7	5.8	5.3

Sources: CSO and *SPU 2018*.
Notes: [a]Denotes latest outturns from the CSO, except for nominal GNI* for which an outturn is not yet available for 2017 – it is instead estimated assuming no change in the adjustments from nominal GNI included in 2016. [b]Underlying contributions to real GDP growth rates in percentage points (excludes the effect of investment in aircraft and intangible assets).

There have been some interpretation issues for the household savings ratio, in particular regarding the plausibility of official CSO outturns for household net borrowing, as discussed in IFAC (2017e, Box C). Forecasts in *SPU 2018* show a savings ratio of over 8 per cent of disposable income until 2020. However, this outcome appears to be inconsistent with a rising share of economic growth contributed by

[20] Projecting the volume of consumption forward based on the first estimate of the 2017 outturn data implies a lower consumption level than if expected revisions had been included in the base.

underlying domestic demand. Although the current level of the savings ratio may not be correctly measured, the direction of change over time should nonetheless be consistent with other indicators, such as the underlying current account of the balance of payments and the composition of growth arising due to domestic demand. In particular, a falling current account balance and a higher share of growth arising due to domestic demand would be more readily explained by a falling savings ratio over time.

Real **government net consumption of goods and services** recorded growth of 1.8 per cent in 2017, slightly below the growth rate expected at the time of *Budget 2018* (2 per cent). Similar volume growth is forecast for coming years. Including price effects shows a steady nominal growth rate of 3.7 per cent for 2019–2021. Compared to the figures shown in *Budget 2018,* the *SPU 2018* profile implies a slightly lower level (-0.6 per cent) of net government spending by 2021.

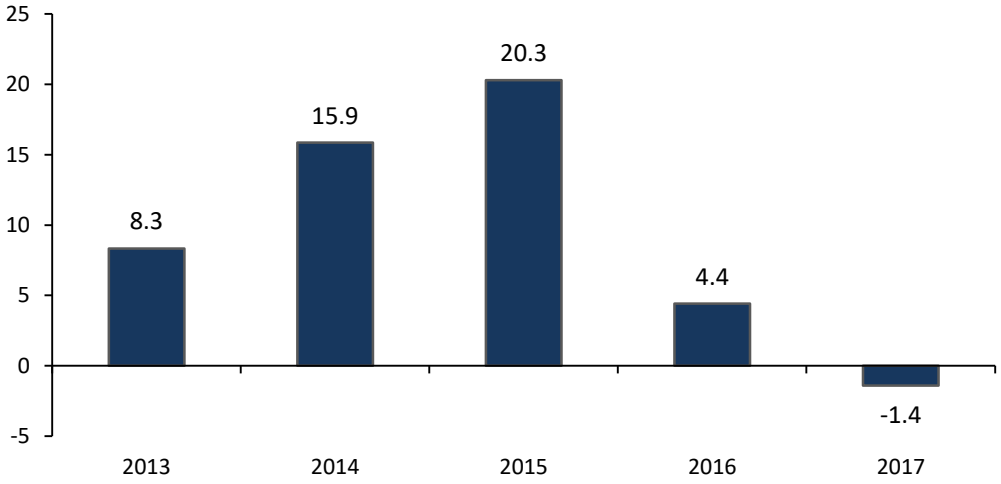
Headline figures for **investment** have been extremely volatile in recent years, with volumes doubling between 2014 and 2016, before falling back by one-fifth in 2017. However, the rate of growth in underlying investment (excluding aircraft and intangibles) has been much more stable. *SPU 2018* forecasts an expected continuation of double-digit growth in residential construction in 2018 and 2019. Annual output of housing completions is expected to reach 24,000 in 2018, rising steadily by 4,000 units per annum to 36,000 by 2021.[21] The Council has previously highlighted the uncertainty around the projected increase in housing output, with the risk that activity may accelerate more rapidly. For 2018 and 2019, non-residential construction activity is expected to grow slightly slower at 10 per cent each year on average.

Against this, there has been puzzlingly weak performance of underlying investment in machinery and equipment in 2017, which excludes the distortionary impact of aircraft. Despite average growth of 20 per cent for the previous four years, it fell by more than 10 per cent in 2017, and the CSO has advised that this weakness was broadly evident across sectors. Given the reliance of firms on importing many of the components needed to carry out investments in machinery and equipment, detailed trade statistics can be used to confirm softening in this area of investment. Removing certain categories linked to investment by foreign multinational enterprises that have

[21] If sustained over the medium term, this output level would be within the range of estimates of housing supply required to achieve equilibrium in the market. However, the range is somewhat wide at between roughly 30,000 units (Duffy *et al.*, 2016) and 50,000 units (Lyons, 2017).

a distortionary impact on Irish investment data allows the construction of a series for imports for adjusted underlying machinery and equipment.[22] As Figure 2.2 shows, activity for such investments has weakened.

Figure 2.2: Adjusted Machinery and Equipment Imports
Percentage change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: This figure shows machinery and equipment imports data adjusted to exclude items 79, 728.21, 752.30, 752.70, 759.97 and 776.42 in the merchandise trade data where large distortions are visible in recent years.

Net Exports

Ireland's performance in net exports and international trade has become particularly difficult to analyse in recent years. As described in previous Council publications, outturn data for goods **exports** have been significantly affected by what is known as "contract manufacturing".[23] The monthly trade statistics published by the CSO exclude such activity. For the *Quarterly National Accounts* and *Balance of Payments* releases, exports and imports data are adjusted for the activities of some multinational enterprises.

While contract manufacturing also took place prior to 2015, it was on a smaller scale and was generally believed to have had a GNP-neutral impact, as payments of royalties and outward profit flows would offset the effect on this aggregate. This offsetting process did not occur in 2015, however, resulting in a large and positive impact of contract manufacturing on both GNP and GDP growth rates. In general, the

[22] The omitted categories include semiconductor machinery, data storage units, processors/controllers and aircraft.

[23] For example, see Box D of IFAC (2017e) and Box A in IFAC (2015b). For further detail see Connolly (2017).

components of net exports have lately been increasingly unpredictable to forecast. In 2017, after initially acting as a drag on growth in the first half of the year, a surge in contract manufacturing activity in the second half of the year resulted in a growth-neutral impact for the year overall.

In line with recent trends, more rapid exports growth is forecast in services than in goods, with services exports growth expected to average over 7 per cent out to 2019. This reflects the consistent outperformance of services exports relative to forecasts in recent years. Meanwhile, growth has been weaker for **imports** of goods. In the preliminary outturns for 2017, overall imports registered single-digit declines for both goods and services components. However, these growth rates are also significantly affected by aircraft (goods) and intangibles (services). Given the difficulty in predicting such components, it is more instructive to analyse underlying imports, which grew by 2 per cent in 2017 – partly reflecting the weakness of adjusted machinery equipment imports shown in Figure 2.2. For 2018 and 2019, the growth rate in underlying imports is forecast to accelerate to above 7 per cent.

Aggregate Demand

Notwithstanding the many limitations of **GDP** (Economic Statistics Review Group, 2017), it remains a central element of Irish economic forecasting. Forecasts of real GDP in *SPU 2018* show some moderation over the forecast horizon, although the near-term expansion is expected to remain strong at close to 5 per cent on average until 2019. Looking ahead, the medium-term outlook for GDP growth slows to just under 3 per cent.

Table 2.2: Real GDP Growth and Underlying Contributions
Percentage change, unless otherwise stated

	2017[b]	2018	2019	2020	2021
Real GDP Growth	7.8	5.6	4.0	3.4	2.8
Of which…					
Domestic Demand (p.p.) [a]	1.4	2.0	1.9	1.5	1.3
Net Exports (p.p.) [a]	6.4	3.6	2.1	1.9	1.5

Sources: CSO and *SPU 2018*.
Notes: [a]Underlying contributions to real GDP growth rates in percentage points (excludes the effect of investment in aircraft and intangible assets). Domestic demand includes changes in inventories. Rounding can affect totals. [b]Denotes latest outturns from the CSO.

As shown in Table 2.2, underlying net exports (stripping out aircraft and intangibles from imports) are expected to account for a greater share of GDP growth throughout the forecast horizon, although growth is projected to become more balanced.

With unchanged seasonally adjusted real GDP throughout 2018 compared to the fourth quarter of 2017, carry-over GDP growth would be 5.4 per cent. This is close to the *SPU 2018* forecast, implying an average quarter-on-quarter growth rate of just 0.1 per cent.

While traditionally understood to provide a more robust measure of real output than GDP, the level of **gross national product** (GNP) has also been distorted in recent years. Such persistent distortions have led to the development of a new measure of aggregate demand, namely modified gross national income (GNI*).[24] Gross value added has also been disaggregated by the CSO for both the predominantly domestic-economy sectors and for the sectors whose turnover is dominated by large, foreign-owned multinational enterprises. The direct impacts of foreign-owned multinational firms on the Irish economy – through taxation, employment, employee earnings and gross value added – are examined further in Box C.

Box C: Impact of a Large, Foreign-Owned Multinational Firm Exiting Ireland

Attracting large multinational enterprises to set up operations in Ireland has been a focus of economic policy for several decades. The scale and value-added of these firms' activities has generated substantial corporation tax receipts for the Exchequer, and also creates significant employment and generates investment in tangible goods in Ireland. This in turn contributes significantly towards income tax/PRSI receipts, and activity more widely.

The presence of these companies in Ireland could change as the result of company-specific decisions or changes in policy regimes and circumstances globally.[25] An assessment of the impact needs to go beyond only corporation tax receipts to reflect the full range of negative impacts that would simultaneously occur. This box provides a scenario analysis for direct macroeconomic, labour-market and budgetary effects of an exit from Ireland by a stylised large, foreign-owned multinational enterprise.

The Role of Foreign-Owned Multinational Firms in Ireland

In measuring economic activity, the Central Statistics Office (CSO) defines a sector as dominated by foreign-owned multinational enterprises when such firms' turnover exceeds 85 per cent of the sector's total. Such sectors comprised 40 per cent of gross value added (GVA) for the economy overall in 2016. This is a doubling of the share over the past decade, with these sectors representing 20 per cent of GVA in 2006. However, the net benefit of some foreign-owned multinational activity to the domestic Irish economy is overstated by GVA data, given the large outflow of profits from Ireland seen in net factor income from abroad. Since 2008, the foreign-dominated sectors' share of total GVA has been increasing, and had risen towards 30 per cent by 2014 even before the 2015 level-shift took place (Figure C.1A). The CSO has advised that the level-shift was concentrated among a small number of companies (Eurostat, 2016).

Detailed analysis on corporation taxes by McCarthy and McGuinness (2018) shows that €5.7 billion (79 per cent) of receipts for the 2016 tax year came from 6,219 foreign-owned

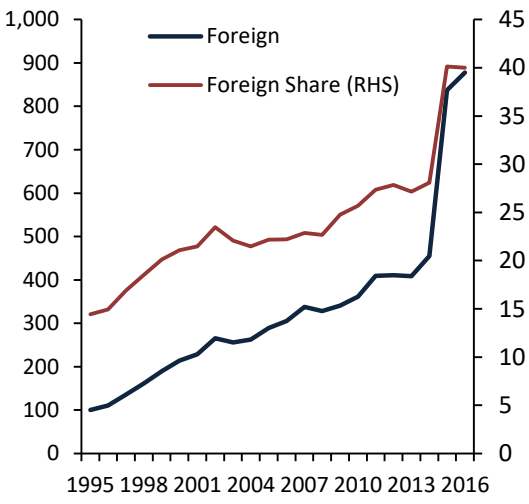
[24] Discussed in Box D of IFAC (2017c).

[25] An example from the last decade of a large firm moving operations out of Ireland is Dell, moving 1,900 jobs from Limerick in 2009 – formerly its largest manufacturing plant in the world.

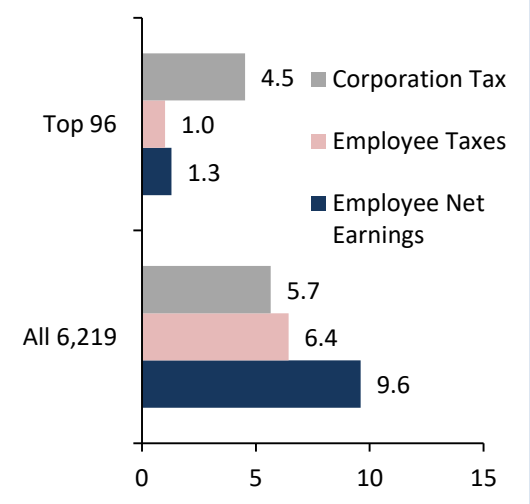
multinational enterprises. Some 435,000 employees worked for these firms, earning a combined after-tax annual salary of €9.6 billion and contributing a further €6.4 billion to the Exchequer in direct taxation for income tax, USC and Employer's PRSI. More granular data shows that the top 96 foreign-owned multinational firms each employed an average of 429 staff, with total gross salaries at €2.3 billion, of which €1 billion was paid in income taxes and employer's PRSI. Figure C.1 summarises the direct contributions of foreign-owned multinational enterprises on taxes (including employer's PRSI), employee earnings and real GVA in Ireland.

Figure C.1: Concentration Risk in Foreign-Owned Multinational Enterprises

A. Foreign Firm Real Gross Value Added
1995 = 100 (LHS), Per cent of total (RHS)



B. 2016 Taxes and Employee Earnings
€ billion



Sources: CSO; Revenue Commissioners; and internal IFAC calculations.

For the top 96 foreign-owned firms ranked by corporation tax payments for the 2016 tax year (paying at least €8 million each), the average payment was €47 million. Clearly, some of the top-paying firms among these 96 are included in the top-ten payers, whose total net corporation tax payments were €2.8 billion (37 per cent of total) for the 2016 tax year – an average contribution of €276 million.

Direct Impacts of an Exit by a Large, Foreign-Owned Multinational Firm

The impact on macroeconomic, employment and budgetary figures in Ireland due to a large, foreign-owned multinational firm exiting the economy can be illustrated using a stylised example. The scenario uses a scaled-up firm based on the relative tax liabilities of a top-ten case compared to a firm in the top 96 foreign-owned corporation taxpayers, given the absence of specific data for the very large firms. This approach relies critically on the strong assumption of common cost structures and productivity for a large firm compared to a foreign-owned firm among the top 96 ranked by corporation tax payments, which clearly may not be the case. Table C.1 derives the share of the economy-wide total for the stylised firm's data.

The stylised direct impact of a large firm leaving Ireland would be to reduce government revenues by over €330 million, close to half a per cent of total revenue in 2016. This would mostly arise due to lost corporation tax. The exit would at the same time directly reduce GVA by 1.9 per cent, whereas the reductions to employment, employee earnings and taxes would all be considerably lower with all under 0.5 per cent. However, these impacts consider only direct and stylised consequences. The overall effects would be larger when considering other consequences such as higher unemployment payments, lower value-added taxes from consumption, potential re-skilling of specialised labour supply, and other indirect impacts.

Table C.1 Direct Effects on Taxes, Earnings and Economic Activity in Ireland
€ million unless otherwise stated

	Typical Large Firm[a]	Total	Large Firm Share (per cent of Total)
Taxes and Earnings			
Corporation Tax	276	7,353	3.7
Employee Taxes/PRSI	62	15,997	0.4
Employee Net Earnings	79	30,419	0.3
Economic Activity			
Gross Value Added	4,975	255,294	1.9
Employment (thousands)	2	2,133	0.1

Sources: CSO; Revenue Commissioners; and internal IFAC calculations.
Notes: [a]The direct impacts of a typical large foreign-owned multinational firm on GVA, employment and employee taxes/PRSI and net earnings are estimated using the relative size of corporation tax payments for a top-ten firm compared to a top 96 foreign-owned firm ranked by corporate tax payments made in 2016.

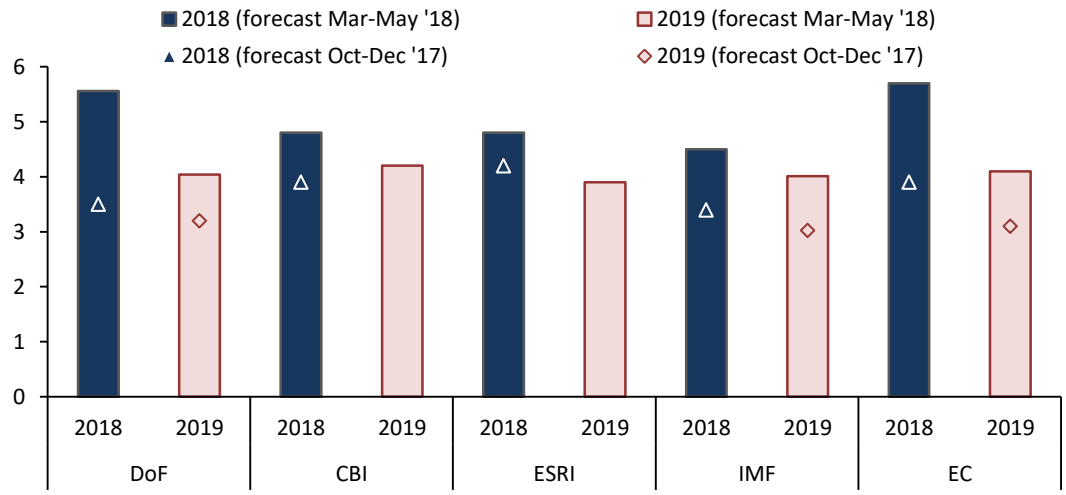
In summary, the impact of a typical large, foreign-owned multinational firm exiting the Irish economy would be largest in percentage terms for corporation tax, followed by GVA, employee taxes, net earnings and employment. While relatively few jobs would be lost as a direct result of an exit, likely spillover effects would mean further lost jobs in supporting employment. There is also potential for additional exits by other large firms if the reasons for one firm to exit Ireland are more broadly applicable, rather than specific to the firm in question.

2.3.3 Short-Term Forecasts of Other Agencies

The surge in growth rates during the latter half of 2017 resulted in GDP outperforming forecasts for the year. This has led to large upward revisions to growth rates in 2018 and 2019 by other forecasting agencies. The largest forecast revision for 2018 across agencies is shown for the Department (*SPU 2018* compared to *Budget 2018*). Revisions to forecasts for 2018 and 2019 (where available) are depicted for five forecasting agencies in Figure 2.3. This compares expected GDP growth rates in October-December 2017 with updated forecasts from March-May 2018 for the same agency.

Figure 2.3: Real GDP Growth Forecasts

Percentage change (year-on-year)



Sources: Department of Finance, *Budget 2018* and *SPU 2018*; Central Bank of Ireland, *Quarterly Bulletin* (4 for 2017 and 2 for 2018); Economic and Social Research Institute, *Quarterly Economic Commentary* (Autumn 2017 and Spring 2018); International Monetary Fund, *World Economic Outlook* (October 2017 and April 2018); and European Commission, *European Economic Forecast* (Autumn 2017 and Spring 2018).

2.3.4 *SPU 2018* Medium-Term Forecasts, 2020–2021

Forecast Horizon

As discussed earlier in relation to the endorsement of macroeconomic forecasts, the Council notes that forecasts published in *SPU 2018* cover only the period 2018–2021. While not a legal requirement, recent forecasts by the Department have extended to five years ahead (t+5), which in this case would imply forecasts to 2023. Forecasts for *Budget 2018* similarly did not cover the period of five years ahead. As well-founded forecasts are a key input for setting the economy and the public finances on a sustainable path, and identifying potential imbalances, forecasting out to t+5 should be resumed, even if it requires stylised assumptions.

Box D: New Alternative Supply-Side Estimates

This box outlines the Department of Finance's development of its new alternative estimates of the supply side as part of *SPU 2018*. These comprise alternative estimates of potential output and of the output gap to those typically produced for Ireland using the EU Commonly Agreed Methodology (CAM). The CAM has a number of shortcomings that can lead to implausible results for Ireland.

Background to the New Alternatives

Since at least 2003, the Department has been critical of the supply-side estimates produced for Ireland under the CAM. Despite this, little progress had been made to develop an alternative set of estimates considered more appropriate. An unhelpful situation emerged in subsequent years whereby the Department considered its own published CAM-based estimates of the cycle to be uninformative or misleading, yet no alternative estimates were given. The published

commentary about the supply side was limited to dismissals of the CAM's results rather than a more fully formed discussion of the Department's actual views of the supply side of the economy. The Department had published some related work for *SPU 2016*, yet the subsequent publication of the *National Income and Expenditure* for 2015 disrupted its work on alternatives.

This continued until April 2017, when the Council – as part of its endorsement of the macroeconomic forecasts underpinning *SPU 2017* – welcomed a commitment from the Department to develop "an alternative to the CAM for medium-term forecasts in the coming twelve months, alongside continuing to produce the CAM estimates to meet legal requirements" (IFAC, 2017a). The Department shared preliminary plans on what might be achieved during this time and updated the Council in terms of its progress in later months.

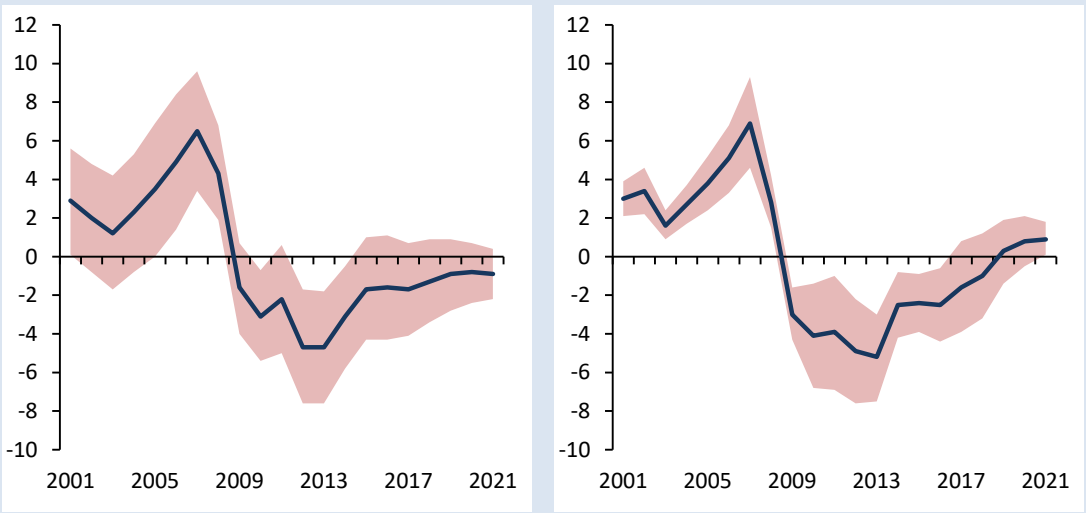
IFAC (2017c) noted that the Council's endorsement of the Department's forecasts in future endorsement rounds would be "at risk if progress is not achieved in developing a better basis for the Department's view of medium-term growth and the cyclical position of the economy".

In March 2018, the Department participated in a conference on the subject of Ireland's economic cycle that was arranged by IFAC. The Department outlined some of the preliminary outputs from its recent work on advancing alternative estimates of the output gap for Ireland, while the Council presented its own suite of models of the output gap and the working paper produced on the subject (Casey, 2018).

The New Alternatives

The alternatives produced by the Department rely on filtered estimates of both real GDP and real domestic gross value added (GVA), which is also used by the Council in its own estimates. A Kalman filter or HP filter is applied to estimates along with additional variables as indicators of the cycle. The additional (demeaned) indicators used by the Department include house price growth; private sector credit growth; real domestic private sector credit growth; core Consumer Price Index inflation; the share of employment in the construction sector; unemployment; and migration as a share of the labour force.

Figure D.1: Alternative Estimates of the Output Gap in *SPU 2018*



Sources: Department of Finance, *SPU 2018*.

In terms of the results, the alternatives produced by the Department (Figure D.1) show a broadly similar pattern to that shown in the suite of models used by the Council. The initial 2000s show a slight positive output gap that turns increasingly more positive as the credit/property bubble forms, before collapsing through 2008–2009. A subsequent stagnation then gives way to a rapid recovery from 2014 onwards. *SPU 2018* notes that "the mid-point estimate outlines a GDP

output gap path that is broadly in line with the Department's assessment", shown in Figure D.1B.

What's Next?

The progress made by the Department in terms of developing the new alternative set of estimates of Ireland's output gap, as published in *SPU 2018*, is a significant step. It should help in terms of developing and communicating the Department's analysis of the cycle. It should provide for more well-founded medium-term forecasts. It should also ensure that potential signs of overheating are communicated publicly and acted upon if necessary.

While the standard CAM approach is still likely to be the main tool used by the European Commission for assessing cyclical developments and the cyclical component of the budget deficit, there is scope for this approach to be amended or for alternative estimates to be used by the Commission in terms of its overall assessments of compliance. The fiscal rules do not explicitly preclude the use of alternative measures. Even if the CAM continues to apply, the Department should emphasise its own alternative views in its publications. Country-specific amendments are possible within the framework, provided that there is a reasonable evidence base supporting the use of alternatives proposed. However, such country-specific changes are subject to a number of governance requirements that might imply insufficient scope to cover the inclusion of the new alternative approaches for the purposes of the Commission's assessments of compliance with the fiscal rules.

In terms of their application, these new alternative estimates should form a core part of future publications by the Department. As is common among other EU finance ministries, and to avoid confusion, the Department's preferred estimate of the output gap should be included in the headline table of macroeconomic aggregates as a way of describing cyclical developments, while CAM-based estimates should be given relatively more limited coverage (e.g., in an Appendix).[26] The Department has committed to publishing a working paper detailing the alternative estimates during the summer. This should help to clearly set out the methods by which it assesses the relative merits of the models it has adopted, and should give a clear indication of the Department's preferred set of supply-side estimates and how they are estimated.

Application of the Commonly Agreed Methodology in *SPU 2018*

Despite the long-standing concerns with the CAM, it remains the European Commission's primary means of assessing Member States' economic performance from the perspective of aggregate supply. Given the CAM's role in assessing compliance with the EU fiscal rules, the Department is obliged to show CAM-based supply estimates in its budget and SPU publications. However, the updated estimate continues to suggest an implausible path for the output gap, showing an overheating economy in 2015, which cooled in 2016 and 2017.

Supply-Side Estimates: Comparing *SPU 2018* to *Budget 2018*

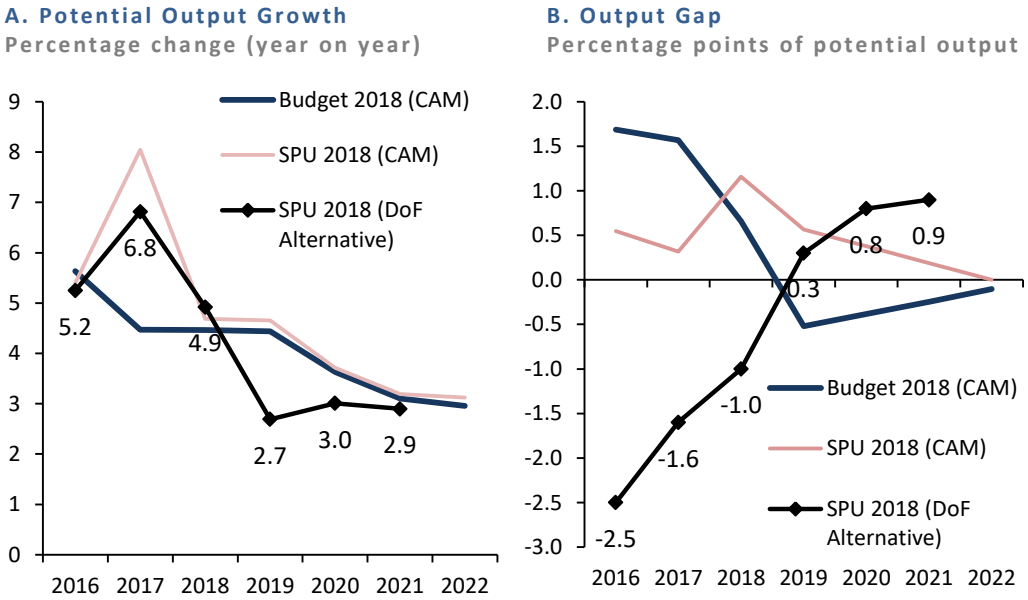
As there are clear limits to the informational content of any individual approach to supply-side estimation, the Department's publication of a range of alternative estimates is an encouraging development. The alternative estimates are developed in

[26] Box B of the November 2015 *FAR* explores the presentational approaches adopted by other EU finance ministries when it comes to showing alternative estimates of the output gap (IFAC, 2015b).

line with some of the techniques applied by Casey (2018), which are based on a "suite of models" approach. This is a sensible way of reinforcing the robustness of the estimates produced, as the relevance of any single model paradigm may vary over time. In particular, the use of "error bands" is a helpful acknowledgement of the uncertainty surrounding the estimates.

Figure 2.4 compares CAM-based estimates of potential output and the output gap from *Budget 2018* and *SPU 2018*, along with the Department's preferred alternative output gap and potential growth rates from *SPU 2018*. The preferred alternative measure is based on the Department's GDP-based estimates, which conceptually may be considered less robust than if based on domestic GVA (as a better indicator of underlying activity in the domestic economy). The profile for estimated potential growth according to the Department's preferred alternative measure is generally lower than for the modified-CAM estimates. However, the differences are more striking for the output gap, even accounting for the modifications made to the CAM for *SPU 2018*.

Figure 2.4: Supply-side Projections for the Medium Term



Source: Department of Finance, *Budget 2018* and *SPU 2018*.

2.4 Risks and Imbalances

2.4.1 Risks

This section considers various risks and imbalances that may affect the Department's central forecasts. They include the possibility of an unwinding of various favourable conditions evident during the recovery period. Table 2.3 reviews the short- and

medium-term macroeconomic risks described by the Department in *SPU 2018*. Likelihood and impact factors are assessed, and a brief commentary describes the Council's own assessment of each risk. Besides the ten macroeconomic risks identified in *SPU 2018*, three additional risks are included by the Council: inappropriate monetary policy, inappropriate domestic policy and a potential volatility in food commodity prices.

Table 2.3: Assessing the *SPU 2018* Macroeconomic Risk Matrix

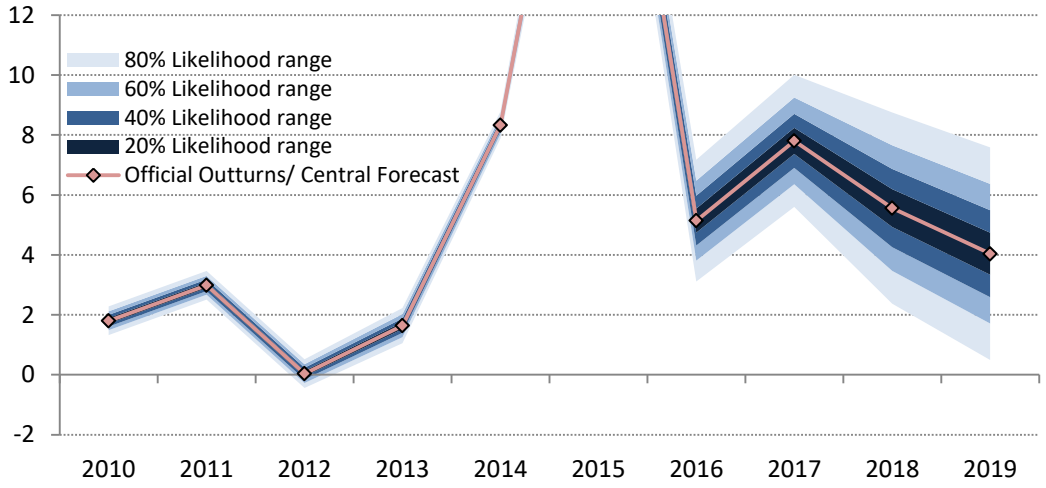
Risk	Likelihood	Impact	IFAC Comment
"Hard Brexit"	M	H	Risks of a WTO-style arrangement, impact on Irish-UK trade. Impact on medium-term growth prospects in Ireland. Severity and persistence of shock relative to estimates.
External Demand Shock	M	H	Strong current global economic growth context. Concern due to slowdown in global trade and prospective trade wars.
Geopolitical Risks	M	H	Limited direct impact, second-round impacts could be more significant.
Disruptions to World Trade	M	H	Protectionism risk: possible negative impact on global trade flows. However, OECD forecasts suggest trade growth will increase in 2018.
Loss of Competitiveness	M	H	Domestic sources: wage pressures, rising commercial/residential rents. External source: exchange rates.
Inappropriate Monetary Policy (IFAC Risk)	M	H	Growth in Ireland is forecast to continue to outperform the Euro Area; risk of looser monetary policy than would be ideal for Ireland. This could amplify the business cycle, as occurred in the last crisis.
Housing Supply Pressures	H	M	Supply response necessary to moderate price growth. Excess demand: harmful for competitiveness and labour mobility. Overheating risk: construction boom with growth nearing potential.
Food Commodity Prices (IFAC Risk)	H	L	Weather-related increases of recent years expected to unwind. Potential to disrupt dairy profits, crucial for regional economic growth.
Global financial market conditions	M	M	Low interest rates/"search for yield": financial stability concerns. Normalisation of monetary policy: impact on borrowers.
Policy Uncertainty in the US (& EU)	M	M	US Corporate Tax changes: possible negative impact on FDI for Ireland. EU common, consolidated corporate tax base (CCCTB): unlikely to affect Ireland's corporation tax rate, but the impact could be high if it does.
Overheating Economy	M	M	Could occur in the Irish economy without significant credit growth. Strong growth when currently near potential output risks overheating.
Concentrated Production Base	L	H	Production base concentrated in a small number of sectors. Sector- or firm-specific shocks could pose wider risks for the economy.
Inappropriate Domestic Policy (IFAC Risk)	M	M	Monetary policy is set by the European Central Bank (ECB). Ireland has fewer levers for managing the domestic economy. Two main domestic policy tools: fiscal and macroprudential policy. These may need to play an active role in preventing overheating.

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

As one of the most volatile economies in the OECD, Ireland is also prone to large statistical revisions to its macroeconomic data. Figure 2.5 reflects such uncertainties by using the typical magnitude of historical revisions and forecast errors to depict uncertainty ranges around *SPU 2018* projections of real GDP growth.

Figure 2.5: Real GDP Fan Chart

Percentage change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Distributions or 'fans' around historical growth estimates are based on previous revisions to real GDP data. Forecast errors are based on 1999-07, while the sample outturn data covers 2010-15. The vertical axis is truncated to make the 2018 and 2019 forecast legible.

2.4.2 Imbalances

The Council's modular approach to analysing the supply side of the Irish economy examines various indicators with the intention of identifying sources of economic imbalances in real time.[27] A motivation of the approach is to monitor specific economic data that may indicate the presence of potentially unsustainable positions relevant for the public finances, or developments that may be cyclical or temporary. Appendix C presents indicators over the *SPU 2018* forecast horizon for four modules: the labour market and prices, investment/housing, external balances and credit conditions. The figures show outturns and *SPU 2018* forecasts (where available).

Labour Market and Prices

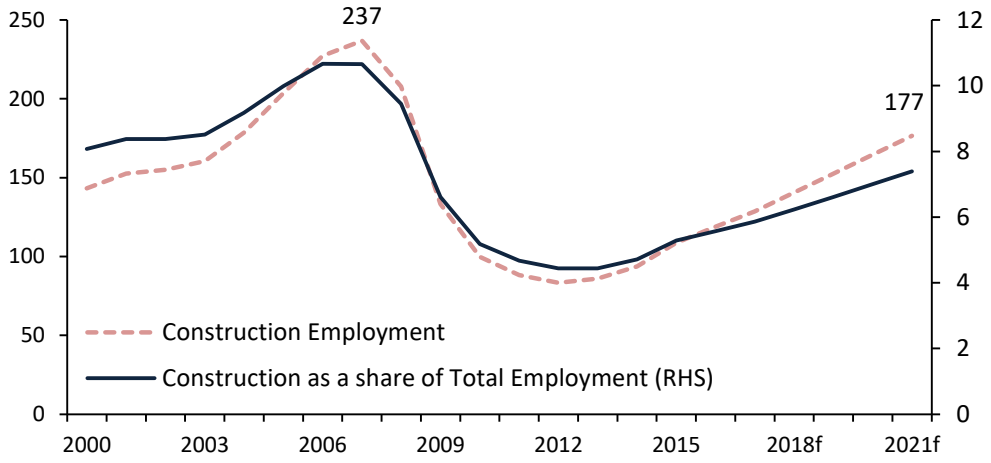
Indicators for the labour market based on *SPU 2018* forecasts suggest a relatively benign environment over the forecast horizon. Despite a rapid economic recovery since 2014 (fuelled by strong employment growth), inflation measures have remained muted in Ireland for several years. *SPU 2018* shows limited change to this outlook over the forecast horizon. Hourly wages – having returned to positive growth in 2015 – are expected to grow at a moderate pace over the forecast horizon. The unemployment rate continues to decline and is forecast to stabilise between 5 ¼ and 5 ½ per cent. This forecast is in line with the Department's view of the natural rate of unemployment, communicated to the Council during the endorsement process.

[27] See Box A in IFAC (2015b).

Forecasts for inward migration show an increase from 0.8 per cent of the labour force in 2017 to a stable rate of just over 1 per cent over the forecast horizon. Large migration flows have been previously evident as a feature of Ireland's very elastic labour supply. There is a risk that strong demand from a booming construction sector may cause sustainability concerns in the labour market. Figure 2.6 highlights the Department's forecast for construction employment, which is expected to increase close to 180,000 by 2021, approaching levels last seen during the 2005–2008 bubble period. As a share of total employment, this would mean an increase of 3 percentage points compared to 2013, to 7.4 per cent.

Figure 2.6: Construction Employment

Thousands (LHS) and percentage of total employment (RHS)



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

External Balances

The headline current account of the balance of payments suggests an extreme case of economic imbalance for Ireland with the rest of the world, with a surplus position equivalent to an average of 11 per cent of GDP over the forecast horizon. However, this position is greatly exaggerated by activities of foreign multinationals enterprises. A clearer and more plausible picture for the current account is portrayed by adjusting for distortions including re-domiciled PLCs, depreciation of intellectual property (IP) assets relating to research and development (R&D) and aircraft, imports of R&D services by foreign-owned multinationals, and acquisitions of IP assets and aircraft for leasing.[28] This measure showed the current account reaching a small surplus of 1 per cent of GNI* in 2016, with forecasts pointing to a deficit (near 3 per cent of GNI*) opening up by 2021, assuming that these adjustments remain unchanged.

[28] These adjustments were first proposed by Coffey (2017) http://economic-incentives.blogspot.ie/2017/12/getting-somewhere-with-current-account.html

An alternative measure for analysis of external balances is the net international investment position (NIIP). In order to avoid the distorting influence of sectors such as the International Financial Services Centre (IFSC) and the volatile non-financial corporations, excluding these from the measure shows an improving position from –€90 billion in 2012, rising to a positive position of close to €75 billion in 2017. This improvement reflects higher financial asset values and also the significant international deleveraging that has taken place in the economy since 2012; the liabilities of non-IFSC monetary authorities and financial institutions have fallen by some €170 billion in that time. The rapid change that has taken place highlights the necessity to carefully monitor the adjusted NIIP measures, along with its determinants.

Investment/Housing Indicators

From a low base of activity, residential construction is expected to pick up steadily over the coming years. Annual housing completions, officially estimated at just over 19,000 for 2017, are expected to increase to 36,000 by 2021. Estimates of the appropriate medium-term level of housing completions consistent with demand range from 30,000 to 50,000 in a year. If the Department's forecasts are realised, there will clearly be a large increase in activity taking place in building and construction. Given that the economy would appear to be operating close to its potential, continued strong growth in a key sector such as housing will require careful monitoring if potential overheating is to be avoided.

The scale of the housing-supply response has been underwhelming to date, and there may be structural issues holding back the level of completions, such as regulatory burden and construction costs. A consequence of the significant undersupply for the housing market has been the rapid inflation in private rents, rising by more than half since 2010 (more than 6 per cent each year on average). Such increases have negative implications for competitiveness and the cost of living, which may influence firms in considering a location for new operations. Further effects may include an increased share of renting in locations outside of the main urban centres, which could in turn require increased spending on transport and other infrastructure for such locations.[29]

[29] McCartney (2017) relates the rise in Dublin rents to an increase in renting by those commuting from the commuter belt.

Credit Conditions

While credit growth has remained subdued in the aftermath of the previous decade's excesses, households returned to net borrowing in late 2017, and firms are likely to follow suit in 2018. For core lending to small- and medium-sized enterprises (excluding loans to financial and property sectors), new lending growth increased by 14 per cent in 2017 (to €3.7 billion), whereas a four-quarter sum of transactions to end-2017 reduced loans outstanding by close to €250 million.

Household lending growth has been limited by the introduction of macroprudential rules, intended to avoid over-extension of credit. These rules include requirements for loan-to-value and loan-to-income ratios. Deleveraging has been ongoing, whereas new lending has only recently returned to positive-growth territory in the twelve months to December 2017. However, recent research by Keenan and O'Brien (2018) points to the dangers of excessive credit growth in future, if new mortgage lending growth rates continue unchecked in line with those of the past five years (averaging 25 per cent per year). Although beginning from a low base, persistent and excessive net growth in credit could once again prove a destabilising influence on wider economic growth, in particular if credit growth causes a further acceleration in house-price growth, which could lead to a sudden correction.

Concluding Remarks on Imbalances

Current indications such as those described above suggest that the Irish economy is likely to be operating close to its potential. While short-term risks remain broadly in balance, upside possibilities include if a rapid supply response to the housing market takes place, which could result in overheating if other sectors of the economy continue to grow rapidly at the same time. However, as a small open economy, Ireland is particularly exposed to changes in external conditions. A number of significant downside risks also remain over the medium term, especially the impact of Brexit.

3. Assessment of Budgetary Forecasts

Key Messages

- The general government deficit (excluding one-off items) for 2018 is forecast at 0.4 per cent of GNI* – broadly unchanged relative to 2017 –, despite strong revenue growth, falling interest payments and declining unemployment.

- The primary balance (excluding one-off items) is forecast to deteriorate in 2018 (surplus of 2.1 per cent of GNI*) relative to 2017 (surplus of 2.5 per cent of GNI*). This is driven by non-interest expenditure growing at a faster pace than total revenue.

- Over 2015–2017, revenue has been much stronger than was anticipated in late 2014. Much of this increased revenue has been matched by higher-than-anticipated spending in these years. This creates the risk of procylicality to the extent that revenue gains are coming from the cycle.

- Corporation tax grew fastest of all tax headings in 2017 and reached its second highest share of Exchequer tax revenue in recent decades. The high volatility and strong concentration of corporation tax receipts in few companies pose significant risks of sharp revenue falls.

- Stamp duties are cumulatively below expectations in 2018 to end-April by 9.8 per cent, raising questions about the estimated yield from the higher rate of stamp duty introduced in *Budget 2018,* as signalled by the Council at budget time. More generally, it is important for realistic forecasts that costings and estimates of yields from tax changes are well founded and subject to independent scrutiny.

- For 2019–2021, the general government balance is forecast to improve very modestly, with a deficit of 0.2 per cent of GNI* in 2019, followed by surpluses of 0.4 per cent and 0.6 per cent in 2020 and 2021 respectively. The forecasts assume that not all of the fiscal space allowed under the rules is used in these years, which is in line with government policy but may be difficult to achieve.

3.1 Introduction

This chapter assesses recent outturns and the latest set of fiscal forecasts produced by the Department of Finance in *SPU 2018*. Section 3.2 examines the outturn of the main fiscal aggregates for 2017 and 2018 thus far. Section 3.3 assesses the projections for revenue and expenditure for 2018–2021 contained in *SPU 2018*. Section 3.4 details some recent publications on long-term fiscal sustainability. Section 3.5 provides an assessment of some fiscal risks.

The main fiscal aggregate outturns/forecasts for 2017–2021 are set out in Table 3.1. The general government balance (excluding one-off items) is expected to improve over the forecast horizon (2018–2021), turning positive in 2020, based on the Government's stated intention not to fully use available fiscal space.

Total revenues (excluding one-off items) are forecast to grow at an average annual rate of 3.9 per cent from 2018 to 2021, with total expenditure (excluding one-off items) planned to grow at a slower average annual rate of 3 per cent over the same period. Primary expenditure (excluding one-off items) – i.e., non-interest spending – is forecast to grow at an annual rate of 4.5 per cent for 2018 to 2019, before slowing to 2.5 per cent over 2020 and 2021. Despite this increase, primary expenditure is expected to gradually fall from 35.1 per cent of GNI* to 33.5 per cent of GNI*. This is due to the strong nominal GNI* forecasts over the projection horizon.

The SPU plans propose allocating €0.5 billion each year from 2019 to 2021 to a Rainy Day Fund, along with an initial allocation of €1.5 billion from the *Ireland Strategic Investment Fund (ISIF)*.[30] Although these amounts would be counted as Exchequer spending, they will remain within the general government sector and will, therefore, not be measured as general government spending.

The forecasts published in *SPU 2018* cover the period 2018–2021. Although not formally required, the Department had established a practice of publishing 5-year-ahead forecasts, which in this case would be out to 2023 (see Figure 1.10 in Chapter 1). The shortening of the horizon in the Government's most recent

[30] The government has approved drafting of a rainy day fund bill: https://www.finance.gov.ie/updates/government-approves-drafting-of-rainy-day-fund-bill/

projections from five to three years ahead is not compatible with the aim of achieving medium-term fiscal stability.[31]

Table 3.1: Summary of Fiscal Outturns and Forecasts (2018–2021)
€ billion, unless otherwise stated

	2017	2018	2019	2020	2021
General Government Balance	-1.0	-0.8	-0.4	0.9	1.4
General Government Balance (excluding one-offs) [1]	-0.8	-0.8	-0.4	0.9	2.4
Total Revenue	76.2	79.3	82.6	85.4	88.9
Total Revenue excl. one-offs [1]	76.2	79.3	82.6	85.4	88.9
Total Revenue excl. one-offs (% change) [1]	4.6	4.1	4.2	3.4	4.1
Total Expenditure	77.2	80.1	83.0	84.5	87.5
Total Expenditure excl. one-offs [1]	77.0	80.1	83.0	84.5	86.6
Total Expenditure excl. one-offs (% change) [1]	3.2	4.0	3.6	1.9	2.4
Interest Expenditure	5.8	5.4	5.2	5.1	4.9
Primary Expenditure	71.4	74.7	77.7	79.4	82.6
Primary Expenditure (% change)	4.0	4.7	4.0	2.2	3.9
Primary Expenditure excl. one-offs [1]	71.2	74.7	77.7	79.4	81.7
Primary Expenditure excl. one offs (% change) [1]	4.0	4.9	4.0	2.2	2.8
Nominal GNI* Growth (% change)	6.3	5.9	5.0	4.5	4.2

Sources: CSO; Department of Finance (*SPU 2018*); and internal IFAC calculations.
Note: [1]One-offs/temporary measures are as assessed by the Council to be applicable. These one-offs are removed from variables to get a sense of the underlying fiscal position.

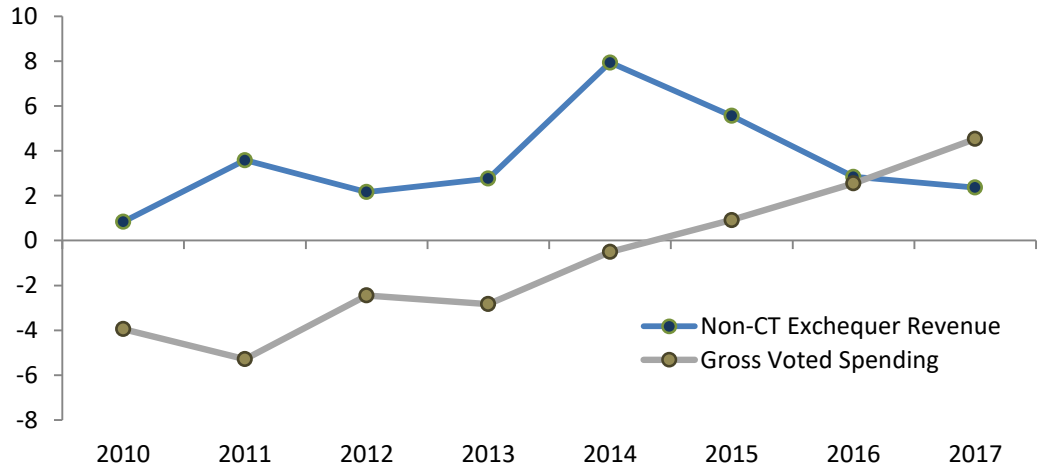
[31] In addition, several other relevant publications from the Department cover a time horizon of five years ahead or more: see annual report on public debt in Ireland (Department of Finance, 2017d), the National Development Plan (Department of Public Expenditure and Reform, 2018a) and Chapter 8 of *SPU 2018*.

3.2 Assessment of 2017 Outturns and 2018 Estimates

The **general government deficit** in 2017 was €1.0 billion, in line with forecasts in *Budget 2018*. If one-off items are excluded, the annual improvement in the balance was €1.0 billion. The improvement in the headline balance was a more modest €400 million, the difference mainly due to one-off revenues in 2016. One methodological change that affected these numbers was the reclassification of tier 3 Approved Housing Bodies (AHBs), which are now included as part of local government, and hence now impact on the general government balance.[32] This reclassification increased the general government deficit by close to €150 million (see Box F) in 2017.[33] While the balance in 2017 was in line with forecasts, higher-than-expected revenues compared with forecasts in recent budgets were matched by higher-than-planned expenditure.

Figure 3.1: Non-Corporation Tax Revenue and Gross Voted Spending

Percentage growth (year-on-year)



Sources: Department of Public Expenditure and Reform; Department of Finance; and internal IFAC calculations.
Note: Data are shown on an Exchequer basis. The 2017 outturn of Gross Voted Spending is provisional.

Figure 3.1 shows underlying revenue and expenditure growth trends. Since 2014, the rate of Exchequer revenue growth – excluding the highly-volatile corporation tax receipts – has declined substantially. This is in contrast to accelerating growth in gross voted Exchequer spending, which turned positive in 2015 and outpaced revenue growth in 2017. These trends partly underpin the very modest improvements in the deficit in the last three years, which did not seem to match a strong cyclical upswing

[32] It seems likely that tier 1 and tier 2 bodies will also be reclassified at a later date.

[33] The impact of the reclassification of Approved Housing Bodies is larger in 2018–2020, see Box F.

in the economy. Box E outlines how spending was revised up in line with upside surprises to revenue receipts.

Box E: The Evolution of the Public Finances since *Budget 2015*

This box examines how general government revenue, expenditure and the balance have evolved over the last three years (2015–2017). Table E.1 shows how outturns differed from *Budget 2015* forecasts.

Table E.1: *Budget 2015* Forecasts vs Outturns

€ billion, unless otherwise stated

	***Budget 2015* Forecasts (2015–2017)**	**2015–2017 Outturns**	**Outturn - *Budget 2015* Forecast**
Underlying Domestic Demand (% growth, cumulative)	3.7	8.2	N/A
General Government Revenue	203.2	220.4	17.2
Current taxes on income, wealth	80.3	87.7	7.4
Taxes on Production and Imports	66.2	70.4	4.2
Social Contributions	33.5	36.1	2.6
Other Revenue	23.1	26.2	3.1
General Government Expenditure	214.3	227.8	13.5
Social Payments	83.2	85.7	2.5
Compensation of Employees	56.4	59.2	2.8
Intermediate Consumption	26.7	28.6	1.9
Gross Fixed Capital Formation	8.4	15.2	6.8
Other	16.4	20.3	3.9
Primary Expenditure	191.2	209.0	17.8
Interest Expenditure	23.1	18.8	-4.3
General Government Balance	-11.1	-7.4	3.7
Primary Balance	12.0	11.4	-0.6

Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Other expenditure includes subsidies, capital transfers and other items. The majority of the higher-than-anticipated spending in this category is due to capital transfers in 2015.

Looking at underlying domestic demand, it is clear that economic growth has been far stronger than forecast for 2015–2017 in *Budget 2015*. This has led to significantly higher revenue, which cumulatively over-performed by €17.2 billion. Taxes on income and wealth made the largest contribution to the upside surprise to revenue. This includes income tax and the highly volatile corporation tax. By way of example, corporation tax receipts in the preceding three-year period (2012–2014) were €13.1 billion, and these rose to €22.4 billion in 2015–2017. Much of this increase in receipts (€ 9.3 billion) was not anticipated.

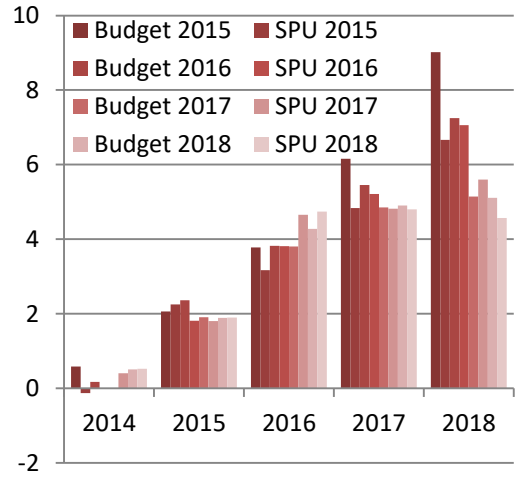
Spending has drifted upwards relative to earlier plans as revenue has surprised on the upside. A number of different expenditure items contributed to this, the largest being public investment (€6.8 billion). The only expenditure item which came in lower than anticipated was interest payments (€4.3 billion; see Figure 3.9 for a comparison of various vintages of interest expenditure forecasts). Since overall spending was higher than forecast, and interest payments were lower, primary expenditure was higher than *Budget 2015* forecasts by €17.8 billion. This means that, despite stronger-than-anticipated economic and revenue growth, the cumulative

primary balance – the difference between general government revenue and primary expenditure – was actually worse than initially forecast in *Budget 2015* (€0.6 billion cumulatively).

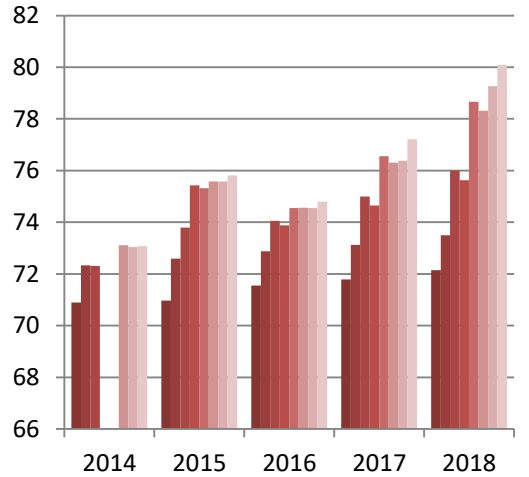
Figure E.1 shows how the primary balance has stayed fixed or declined in later vintages, reflecting how higher-than-anticipated revenues were matched by higher-than-anticipated expenditure. This stalling of improvements to the primary balance creates the risk of procylicality to the extent that revenue gains are coming from the cycle.

Figure E.1: Vintages of Primary balance and expenditure

A: Primary Balance
€ billion



B: Expenditure
€ billion



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Darker bars indicate older vintages; lighter bars indicate more recent vintages.

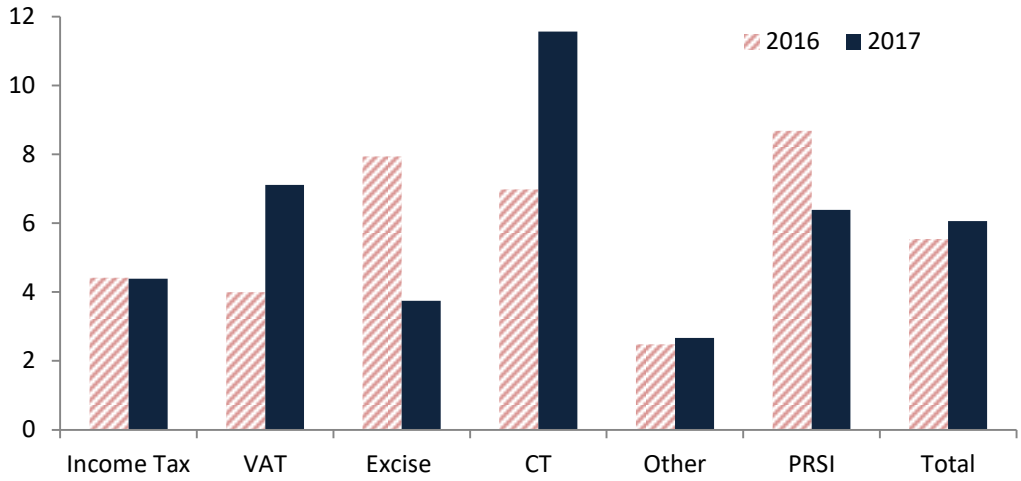
General government expenditure grew by 3.2 per cent (€2.4 billion) in 2017, with spending excluding interest payments (primary spending) growing at a faster pace of 4 per cent (€2.8 billion). Compensation of employees made the biggest contribution to growth (€1.2 billion), while interest expenditure fell by €0.4 billion. General government spending in 2017 was €822 million higher than forecast in *Budget 2018*, with several items contributing to this.[34]

For the year-to-date (end-April), expenditure looks broadly in line with monthly forecasts. Current spending is slightly higher than expected, while capital spending is somewhat lower than expected.

[34] The refunding of water charges gave rise to a one-off cost of €178 million, while the funding gap due to the abolition of water charges gives rise to a recurring cost of €114million. Compensation of employees and capital transfers were both higher than expected (by €275 million and €415 million, respectively), while interest and other expenditure were lower than projected at budget time (by €84 million and €175 million, respectively). In addition, the reclassification of Approved Housing Bodies also contributed to higher-than-expected spending (see Box F).

Turning to **general government revenue**, this amounted to €76.2 billion in 2017. This is 3.8 per cent higher than in 2016 and €0.8 billion higher than forecast in *Budget 2018*. In terms of Exchequer tax revenue, receipts of €50.7 billion were recorded in 2017, broadly in line with expectations and representing annual growth of 6 per cent.

Figure 3.2: Exchequer Tax Revenue and PRSI in 2016-2017
Percentage change (year-on-year)

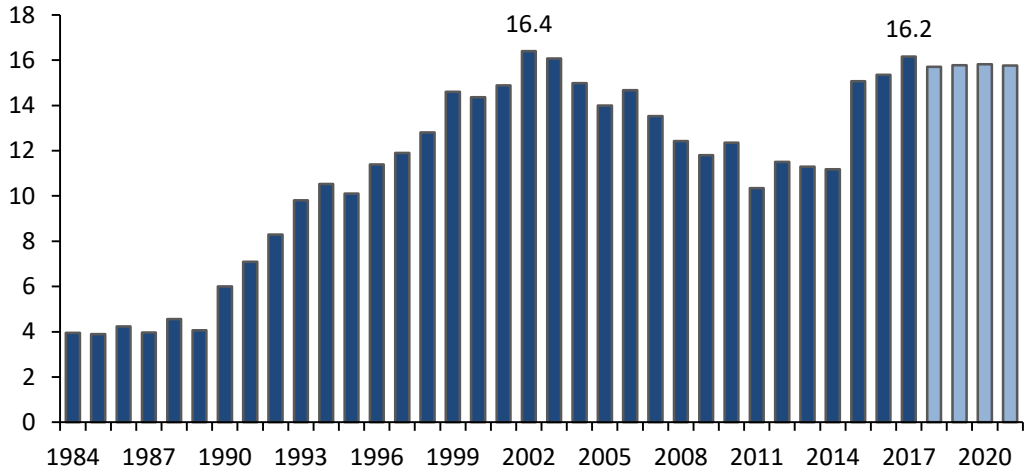


Sources: Department of Finance; and internal IFAC calculations.
Note: Other includes stamp duties, local property tax, customs, capital gains tax, capital acquisition tax and other. Total represents the growth of Exchequer tax revenue and PRSI.

The growth of **tax revenues** and **PRSI** for 2016 and 2017 is shown in Figure 3.2. Corporation tax grew by 11.6 per cent in 2017 – with receipts amounting to €8.2 billion – well over previous forecasts. Compared to *Budget 2018* forecasts, the actual growth was 3.2 percentage points (or €235 million) higher. In addition, corporation tax receipts represented 16.2 per cent of total Exchequer tax revenue in 2017. Looking at the historical series since 1984 (Figure 3.3), this share is the second highest attained over this 34-year period (the maximum share of 16.4 per cent was reached in 2002). Income tax and PRSI grew by 4.4 and 6.4 per cent respectively in 2017, reflecting the strong labour market growth. VAT receipts experienced solid growth of 7.1 per cent in 2017, with strong revenues evident across a broad range of sectors. Conversely, excise duties' growth was more moderate than in 2016 (3.7 per cent, against 7.9 per cent in 2016), which is partly attributed to the introduction of plain packaging on tobacco products.

Figure 3.3: Corporation Tax Close to the Peak of Tax Revenue Share in 2017

% of total Exchequer tax revenue



Sources: Department of Finance; and internal IFAC calculations.
Note: Dark bars show outturns for 1984–2017; light bars show *SPU 2018* forecasts for 2018–2021.

At end-April 2018, Exchequer tax revenue amounted to €14.7 billion cumulatively since the beginning of 2018. This represents an annual increase of 3.9 per cent (on a like-for-like basis), but is slightly below profile (by €202 million, or 1.4 per cent).[35] All the main tax heads performed below previous forecasts cumulatively, in contrast with a cumulative over-performance of PRSI by €55 million (1.6 per cent), as shown in Figure 3.4.[36]

The persistent over-performance of PRSI has been evident in the vast majority of months in 2017 and 2018 to date (excluding the month of February), while income tax has cumulatively underperformed thus far. Figure 3.5 reflects the solid growth of PRSI, which is increasingly outstripping income tax growth since mid-2016. The strength of PRSI reflects labour market improvements, whereas income tax is comparatively weaker mostly because of recent discretionary changes (including rate cuts and changes in tax bands).[37] In addition, the cost of cuts to the USC may have

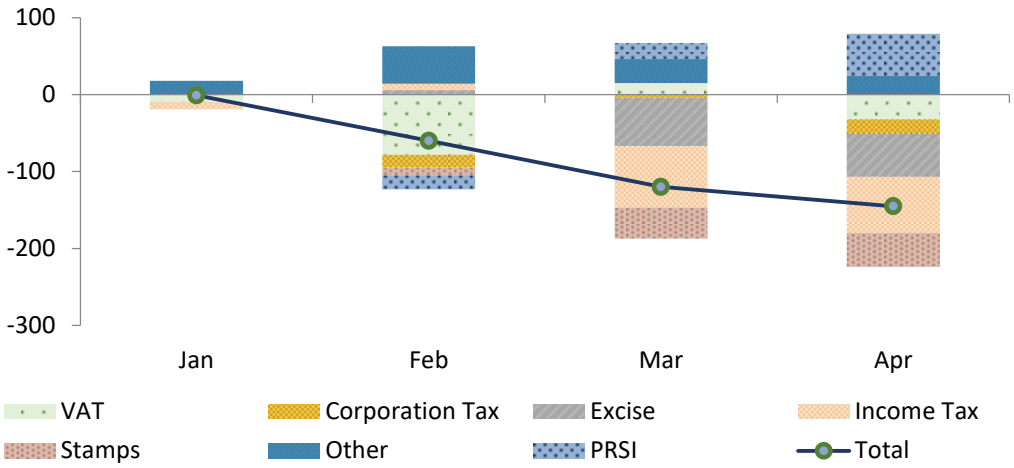
[35] In order to allow for a like-for-like comparison, local property tax and motor tax are excluded from the analysis. This adjustment relates to the fact that local property tax is no longer directed in first instance to the Exchequer accounts (since 1 January 2018) and is instead paid directly into the Local Government Fund. The opposite applies to motor tax: since 1 January 2018, it is directly paid into the Exchequer instead of the Local Government Fund.

[36] The PRSI performance figure includes its corresponding excess over expenditure, as indicated in the memo items.

[37] The latest policy change in income tax took place in *Budget 2018.* Among others, an increase of €750 in the income tax standard rate band was introduced for all earners, from €33,800 to €34,550 for single individuals and from €42,800 to €43,550 for married one-earner couples. Additionally, an

been underestimated at the time, largely attributed to known errors in the specification of the associated elasticity (Box F from IFAC, 2017e).

Figure 3.4: Exchequer Tax and PRSI Cumulative Performance to End-April 2018
€ million, outturn–profile



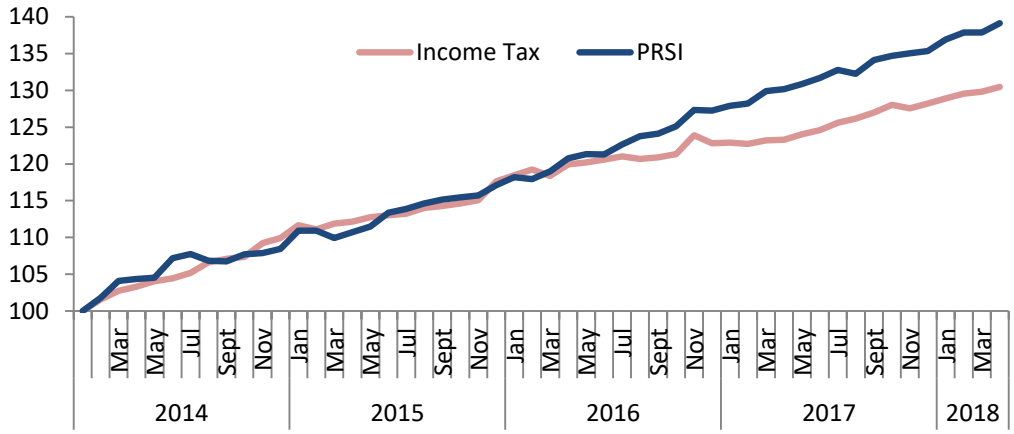
Sources: Department of Finance; and internal IFAC calculations.
Note: Other includes capital taxes, motor tax and other. PRSI includes the corresponding excess as indicated in the memo items.

Stamp duties have underperformed, with cumulative receipts 9.8 per cent lower than expected for the year-to-date (Figure 3.4). This largely relates to the forecasts arising from the higher rate of stamp duty on non-residential property introduced in *Budget 2018*, which may be overoptimistic. As signalled in Box F of the November 2017 *Fiscal Assessment Report* (IFAC, 2017e), the assumptions underpinning these forecasts were based on periods that seem to correspond to exceptionally high commercial activity levels, which is likely to be overoptimistic. More generally, it is important for realistic forecasts that costings and estimates of yields from tax changes are well founded and subject to independent scrutiny.

increase in the Home Carer Tax Credit from €1,100 to €1,200 was approved, and from €950 to €1,150 in the Earned Income Credit (Department of Finance, 2017e).

Figure 3.5: Income Tax and PRSI

Index of 12-month rolling sum, January 2014=100



Sources: Department of Finance; and internal IFAC calculations.

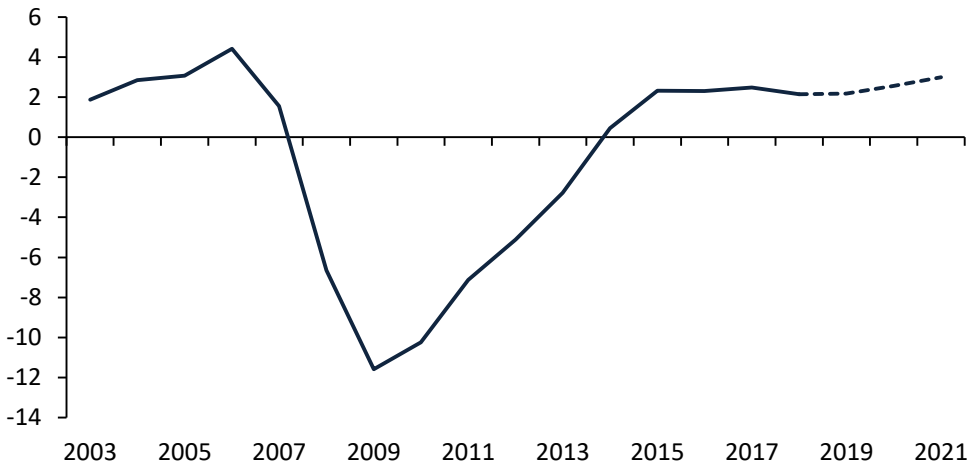
3.3 *SPU 2018* Forecasts (2018–2021)

2018–2021 General Government Balance

SPU 2018 forecasts the general government balance to improve only marginally in 2018 (€229 million in headline terms, €51 million after correcting for one-off items). This is despite forecasts of falling interest payments (€461 million lower than in 2017), strong economic growth and a declining unemployment rate.[38] Given that these factors would typically be expected to lead to an improvement in the government balance, the rate of improvement is very modest.

Looking at recent outturns, it is evident that improvements in the primary balance have stalled since 2015. The forecast primary balance for 2018 implies a lower primary balance (as a percentage of GNI*) than for 2015 (Figure 3.6).

Figure 3.6: Primary Balance
Percentage of GNI*, excluding one-off items



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

The general government balance (excluding one-off items) forecasts for 2019 and 2020 are largely unchanged from *Budget 2018*, with a surplus forecast for 2020. The forecast surplus in the *SPU* (excluding one-off items) for 2021 is slightly lower than *Budget 2018* forecasts. The headline surplus is €900 million lower due to a capital transfer (while treated as a one-off item in many of the charts and tables in *SPU 2018*, the Council has not yet fully assessed if this should be classified as a one-off item).[39] It is worth noting that the forecasts in *SPU 2018*, like those in *Budget 2018*, assume less

[38] *SPU* forecasts a fall of almost a percentage point in 2018 from 6.7 per cent to 5.8 per cent.

[39] This relates to a capital transfer to the Eircom no 2 pension fund set up in respect of former civil servants.

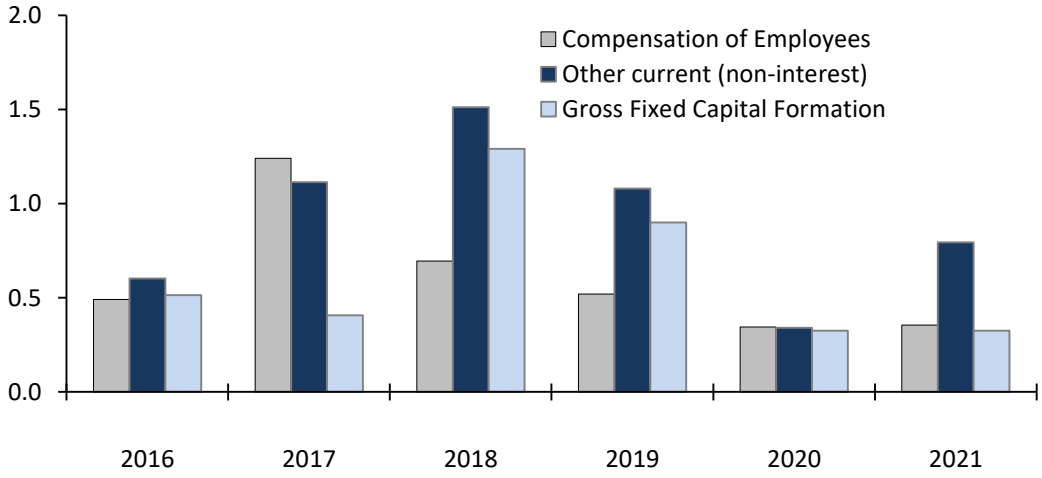
than full use of fiscal space in later years (amounting to approximately €5 billion over 2019–2021).

While the overall balance may be largely unchanged, both revenue and expenditure have been revised up from previous estimates.[40] Looking at recent outturns and forecasts, the primary balance is pretty stable from 2015 to 2021 (Figure 3.6). Given the strong economic growth and falling unemployment over the period, the lack of improvement is surprising and could potentially leave the public finances exposed to shocks.

2018 Expenditure

Primary expenditure (excluding one-off items) is forecast to grow by almost 5 per cent in 2018. Capital expenditure is set to increase by almost €1.3 billion or 23 per cent (see Figure 3.7).[41] Smaller – but still significant – increases can be found in compensation of employees (€695 million), intermediate consumption (€885 million) and other spending (€630 million).

Figure 3.7: Contributions to Primary Expenditure Growth
€ billion, excluding one-off items



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Other current spending in 2021 excludes the impact of a one-off capital transfer.

Compared to *Budget 2018*, estimates for expenditure in 2018 have been revised up significantly (€815 million). This comes despite a downward revision of interest payments (€295 million) and social payments (€85 million). All other items of general

[40] This reflects the higher-than-anticipated outturns for both revenue and expenditure for 2017.

[41] The reclassification of Approved Housing Bodies (AHBs) increases the level of general government gross fixed capital formation. Investment by these bodies is set to increase by close to €400m in 2018 as part of *Rebuilding Ireland*.

government expenditure have been revised up, with gross fixed capital formation (€600 million), compensation of employees (€150 million), subsidies (€150 million) and other (€100 million) being the most significant. Table A3 of *SPU 2018* gives some detail on the cause of these revisions for 2018 and indicates that all were due to new data (mainly 2017 outturns), apart from gross fixed capital formation, which is mainly attributed to the reclassification of Approved Housing Bodies.

Box F: Approved Housing Bodies

This box examines the reclassification of Approved Housing Bodies (AHBs). AHBs are non-profit entities which provide affordable rented housing. There are three tiers to such bodies (according to their size). Last year, the CSO conducted a review of the classification of tier-3 AHBs. In December 2017, the CSO published its decision.[42] It concluded that the tier-3 bodies be classified as part of the local government sector and, hence, part of the general government sector.

This classification change has been incorporated into general government data (back to 2014) by the CSO and is also reflected in the fiscal forecasts in *SPU 2018*. Revenue and expenditure of the fifteen tier-3 AHBs are now treated as part of general government revenue or expenditure. The consolidated impact of AHBs and local authorities on the deficit was €150 million in 2017. This impact is forecast to increase to €470 million in 2018, before falling slightly out to 2020 (€330 million). In 2021, however, it is forecast to have no further impact on the deficit. The reclassification of tier-3 AHBs increases the general government debt, with an impact of around €100 million. This impact is relatively small, as much of the debt of AHBs had already been included in general government statistics as it was obtained via the Housing Finance Agency, which is included in the general government sector.

The main impact of this reclassification can be seen in outturns and forecasts of general government gross fixed capital formation. Table A3 of the *SPU* highlights the changes in forecasts since *Budget 2018*. For 2018, the €600 million upward revision to general government gross fixed capital formation is mainly attributed to the reclassification of AHBs. Investment by AHBs is forecast to increase significantly in 2018 as part of *Rebuilding Ireland,* giving rise to the increasing deficit impact in 2018.

On the revenue side, the reclassification of AHBs has increased other revenue recorded in the general government sector, specifically "sales of goods and services". This is, however, relatively modest, as it comes mostly from local authorities, hence contributing only between €85 million and €95 million.

2019–2021 Expenditure

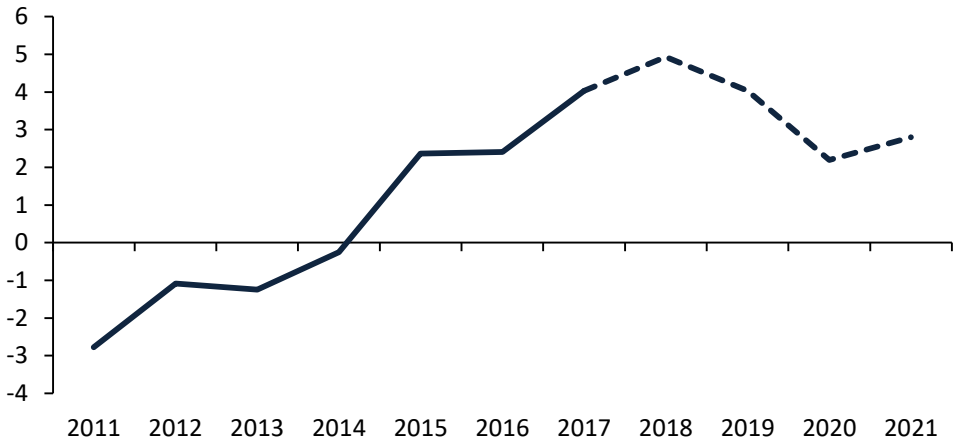
On the expenditure side, the publication of the National Development Plan (Department of Public Expenditure and Reform, 2018a) and the reclassification of Approved Housing Bodies have resulted in increased gross fixed capital formation forecasts compared to *Budget 2018*, with increases of between €295 million and €430 million per year (2019–2021). Forecasts from the National Development Plan show public capital investment at 3.8 per cent of GNI* in 2021, reaching the government's

[42] http://www.cso.ie/en/media/csoie/methods/nationalaccounts/AHB_Letter_to_ESTAT.pdf

targeted level of 4 per cent in 2024 and averaging at that level from 2022 to 2027. Box G discusses the National Development Plan and the pattern of revisions to capital expenditure.

Looking at primary expenditure growth (excluding one-off items), this has been accelerating recently, moving from negative growth in 2014 to 4 per cent positive growth in 2017 with a further increase to 4.9 per cent growth forecast for 2018 (Figure 3.8). This strong growth is forecast to moderate somewhat in 2019 to 4 per cent. As currently set out, significantly slower expenditure growth is envisaged for 2020 and 2021 (2.2 and 2.8 per cent, respectively). Gross fixed capital formation is partially responsible for this slowdown in growth, with growth forecast to moderate from 18.4 per cent (2018–2019) to 4.1 per cent (2020–2021). The other main factor in the dip in primary spending growth in 2020 and 2021 is the forecasts for compensation of employees, which is expected to grow by 1.6 per cent in 2020 and 2021. Given the likely increases in staff numbers and rate of wage growth in the economy, this seems like a modest growth rate. The difficulty in achieving such a slowdown in a growing economy poses an upside risk to spending forecasts for 2020 and 2021.

Figure 3.8: Growth in Primary Expenditure (Excluding One-off Items)
% change (year-on-year)



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Primary expenditure equals total expenditure less interest repayments on government debt and one-offs. One-offs are those identified by the Council as applicable.

Intermediate consumption spending is forecast to fall in 2020 and 2021. This forecast, given expected inflation (HICP) of 1.4 and 2.6 per cent respectively, seems quite unrealistic. There are unallocated resources for expenditure of €1.21 billion and €1.96 billion in these years, so some may be allocated to intermediate consumption. In a

similar way, other expenditure is forecast to be relatively flat over 2020–2021 (see Table 3.2).

In a separate publication (IFAC, 2018b), IFAC presented the Stand-Still scenario, which estimates the cost of maintaining today's level of public services and benefits (in real terms) over the medium term. The findings suggest that the level of non-interest spending and the fiscal space budgeted for under *SPU 2018* plans accommodate the Stand-Still estimates over the period 2019–2021. Allowing for both demographic and price pressures yields a similar estimate of non-interest spending to the budget plans up to 2021, in the absence of policy changes, or changes to macro drivers. Comparing the fiscal space allocated to current expenditure (including pre-committed amounts) implicit in *SPU 2018* and the IFAC "Stand-Still" scenario implies that allocated spending would be sufficient to maintain existing levels of service and public investment plans. However, this would leave little room for other improvements in public services, discretionary tax cuts or additional welfare increases. In a growing economy, this is likely to be challenging.

Table 3.2: General Government Expenditure Forecasts (2018–2021)
Percentage change year-on-year, unless otherwise stated

	2018	2019	2020	2021
General Government Expenditure	3.7	3.6	1.9	3.5
Compensation of Employees	3.4	2.4	1.6	1.6
Intermediate consumption	9.0	1.9	-0.1	-0.7
Social transfers	0.3	1.1	1.7	1.5
Interest Expenditure	-7.9	-2.3	-2.9	-3.5
Subsidies	-2.2	3.6	0.5	0.8
Gross fixed capital formation	23.5	13.3	4.2	4.1
Capital transfers	-15.1	22.0	-9.2	89.2
Other	20.5	5.5	-0.1	0.4
Primary Expenditure	4.7	4.0	2.2	3.9
Primary Expenditure, % of GNI*	35.1	34.8	34.0	33.9
Resources to Be Allocated, € billion	0.0	0.5	1.2	2.0

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

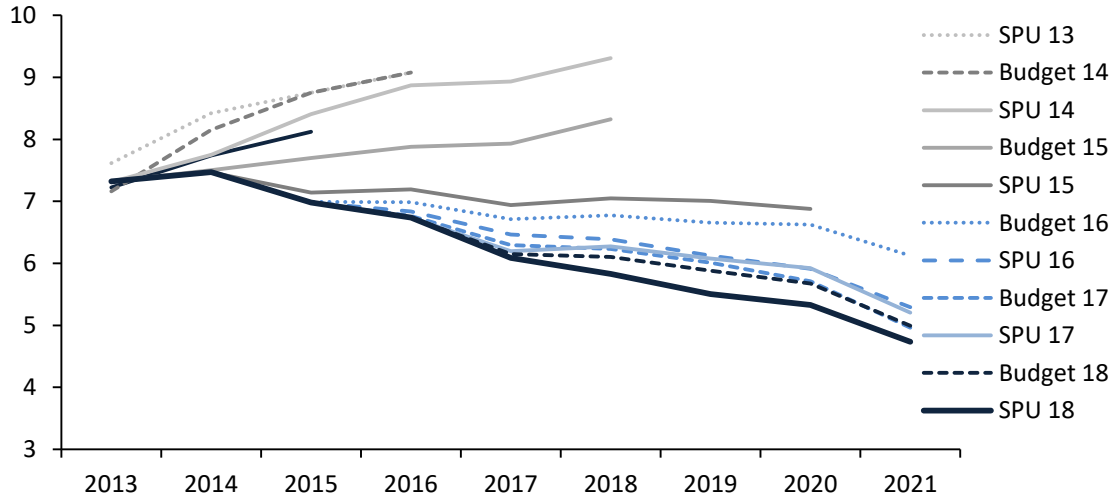
SPU 2018 forecasts indicate that contributions of €500 million are to be made to a Rainy Day Fund in 2019–2021. While counted as Exchequer spending, these payments are not counted as general government spending. A recent working paper developed at IFAC (Casey *et al.*, 2018), proposes how a countercyclical Rainy Day Fund could operate with modest changes to the current EU fiscal rules framework. Current

proposals for the Rainy Day Fund indicate that it is not designed to operate as a countercyclical tool, given that contributions to the fund are expected to be flat over 2019–2021.

Interest Expenditure

Interest costs on government debt have declined in recent years and this is projected to continue over the forecast period (2018–2021). Figure 3.9 shows the improvement in forecast and actual interest costs due to: (i) low global interest rates; (ii) agreed reductions in interest rates on official borrowing; (iii) expansionary monetary policy by the ECB, including the Public Sector Purchase Programme; and (iv) the early repayment of IMF loans and other debt restructuring. *SPU 2018* has once again seen a fall in expected interest payments over the forecast period (2018–2021). *Budget 2015* forecasts suggested interest expenditure of close to €10 billion and corporation tax receipts of close to €5 billion in 2018. The latest forecasts suggest interest expenditure will be over €5 billion and corporation tax receipts of close to €10 billion in 2018.

Figure 3.9: Revisions to General Government Interest Expenditure
€ billion



Sources: Department of Finance.

2018–2021 Revenue

Total **general government revenue** for 2018–2021 is forecast to grow at 3.9 per cent on average, broadly unchanged from *Budget 2018*.[43] It is expected to be equivalent to slightly more than one-third of nominal GNI* over the whole forecast period (Table 3.3).[44] The main drivers of the increased general government revenue over the projection horizon are the taxes on production and imports, and the current taxes on income and wealth (expected to represent an average of 11.8 and 15.6 per cent of GNI* per annum, respectively).

Table 3.3: General Government Revenue Forecasts (2018–2021)
€ billion, unless otherwise stated

	2018	2019	2020	2021
General Government Revenue				
% GNI*	37.2	36.9	36.6	36.5
% GDP	25.4	25.1	24.8	24.7
% GNP	31.0	30.8	30.5	30.4
General Government Revenue	**79.3**	**82.6**	**85.4**	**88.9**
Taxes on Production and Imports	25.1	26.4	27.5	28.7
Current Taxes on Income, Wealth	33.3	34.7	36.4	38.2
Capital Taxes	0.5	0.5	0.5	0.5
Social Contributions	13.2	13.7	14.3	14.9
Property Income	1.4	1.3	1.0	0.7
Other	5.9	6.0	5.8	6.0

Sources: Department of Finance; and internal IFAC calculations.

Exchequer tax revenue for 2018 is forecast at €54.2 billion, exactly the same as in *Budget 2018* (on a like-for-like basis) and with marginal revisions in individual tax

[43] The upward revision of the forecasts in levels in *SPU 2018* is partly offset by a higher-than-expected outturn in 2017, hence keeping growth for 2018 broadly the same as at budget time. In terms of the total revenue components, taxes on production and imports forecasts have been substantially revised down by a similar amount as the upward revision on current taxes on income and wealth. This is merely a relocation that arises from the revision of the ESA coding due to the Local Government Fund reform and the motor tax receipts coming directly to the Exchequer accounts.

[44] These forecasts are lower than at *Budget 2018* time (by 2.5 percentage points, on average) given a substantive upward revision in the nominal GNI* forecasts at *SPU 2018.* Nominal GNI*forecasts at *SPU 2018* for the period 2018–2021 are, on average, 7.8 percentage points higher (€16.6 million) than *Budget 2018* forecasts. This is related to the fact that Net Factor Income from abroad turned out very differently to what was expected at budget time for 2017. GNP growth for 2017 was projected to be zero based on information available at budget time, and GNI* growth is forecast as equal to GNP growth. Given that GNP turned out to grow in line with GDP in 2017, GNI* was hence also higher. In addition, the increasing changes over the forecast years would reflect upward revision to GDP (and indirectly, GNP and GNI*) forecasts for those years since the budget.

heads. Appendix Figure AD1 shows the differences between the *SPU 2018* forecasts relative to *Budget 2018*. Our analysis of the 2018 revisions in *SPU 2018* starts by: (i) updating the 2018 "macro" economic outlook relevant for each tax head for 2018 (e.g., Gross Operating Surplus for corporation tax); (ii) using the correct outturn or "starting point" of each tax source for 2017 (which affects 2018 forecasts); and (iii) taking into account "other" adjustments (measured as any remaining revisions for 2018).[45] The "starting point" played a positive role on corporation tax forecasts given that the 2017 outturn was higher than expected. An upward revision to forecasts of Gross Operating Surplus also contributed to increasing the corporation tax forecast, although this was offset by "other" adjustments – including divergences in the internal IFAC forecast and that provided by the Department of Finance –, yielding no total change in the 2018 corporation tax forecast (with respect to that in *Budget 2018*). Conversely, lower-than-expected VAT receipts were largely offset by stronger macroeconomic forecasts than at budget time, which also played an important role in excise duty revenue (as opposed to PAYE, the only source where the macro driver was revised down since *Budget 2018*).[46]

For 2019–2021, a slight upward revision on the aggregate Exchequer tax revenue figure has taken place (€70 million in 2019; €175 million in 2020; and €265 million in 2021). This is largely the result of modest increases in the forecasts of corporation tax receipts and – to a lesser extent – VAT forecasts, which are only partly offset by small downward revisions of income tax.

Table 3.4 details the **Exchequer tax revenue** and **PRSI** forecasts for 2018–2021. Relatedly, Figure 3.10 shows that the average tax revenue growth is projected to remain broadly constant at around 5.8 per cent in 2018 (on a like-for-like basis) and an average of 5.0 per cent per annum over the medium term.

[45] The macro drivers for 2018 used in this exercise are based on the recent *SPU 2018* forecasts, as opposed to those projected at budget time. However, the Department of Finance's tax forecasts for 2018 use the macro drivers that were forecast in *Budget 2018.* The exercise is therefore based on the most up-to-date macroeconomic information for each tax source.

[46] The negative contribution of the macro driver for the PAYE component of income tax is attributed to a downward revision of the projected change in non-agricultural earnings and employment for 2018.

Table 3.4: Exchequer Tax Revenue and PRSI Forecasts (2018–2021)
€ billion

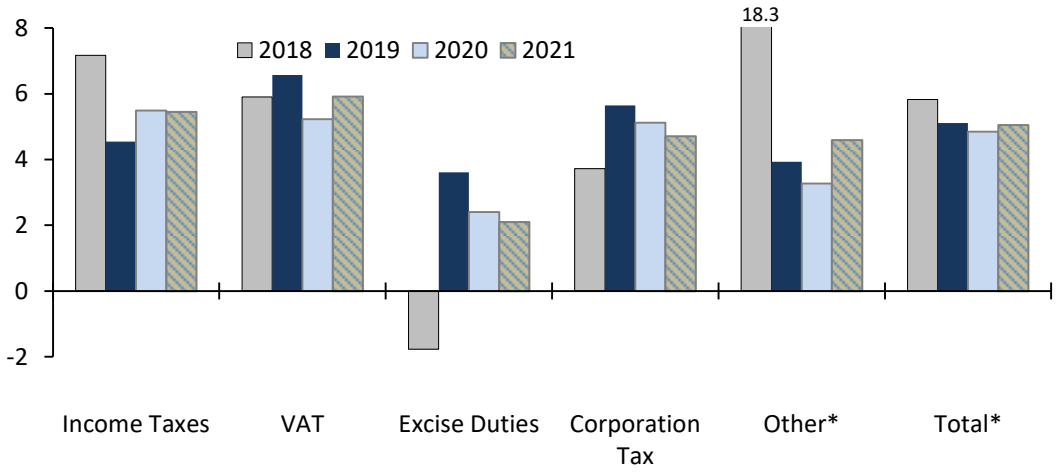
	2018	2019	2020	2021
Tax Revenue	**54.2**	**57.0**	**59.7**	**62.7**
Income Tax	21.4	22.4	23.7	24.9
VAT	14.1	15.0	15.8	16.7
Corporation Tax	8.5	9.0	9.4	9.9
Excise Duties	5.8	6.0	6.2	6.3
Other	4.3	4.5	4.6	4.9
PRSI Receipts	**10.3**	**10.9**	**11.4**	**12.0**

Sources: Department of Finance; and internal IFAC calculations.
Note: Other includes stamp duties, motor tax, customs, capital gains tax and capital acquisition tax.

Overall, strong expected income tax and PRSI receipts are supported by the solid employment forecasts. Importantly, PRSI receipts are forecast to be equivalent to almost half of income tax revenues over the whole projection horizon. This shows the importance of this revenue source, which is not often recognised in revenue analyses. Corporation tax receipts are forecast to account for 15.7 per cent of total Exchequer revenues in 2018, and 15.8 per cent over the period 2019–2021, below the 16.2 per cent reached in 2017 (see Figure 3.3 in Section 3.2). Although corporation tax is forecast to follow solid growth, the strong concentration of this revenue source across very few companies (in 2017, nearly 40 per cent of the total corporation tax payments were made only by the top-ten companies) poses a serious risk to the Exchequer accounts (see Table 3.5 on the fiscal risks).[47] Reflective of strong consumption prospects – nominal personal consumption is forecast to increase, on average, by 4.3 per cent per annum over the forecast horizon – VAT is projected to increase at an annual average rate of 5.9 per cent over 2018–2021.

[47] In 2017, foreign-owned multinational companies accounted for 80 per cent of corporation tax receipts, whereas this share was 4 per cent for Irish-owned multinationals. Net receipts were paid by over 50,000 companies, representing an increase of nearly 14 per cent with respect to 2016. Manufacturing was the sector with the highest contribution to corporation tax receipts, accounting for 27 per cent of total corporation tax revenue (McCarthy and McGuinness, 2018).

Figure 3.10: Exchequer Tax Revenue Forecasts (2018–2021)
Percentage change (year-on-year)



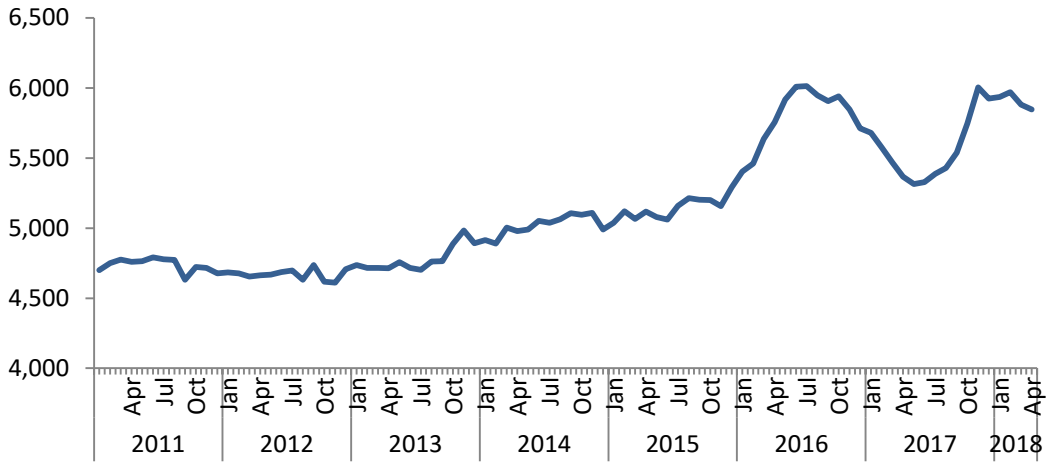
Sources: Department of Finance; and internal IFAC calculations.
Note: Other is the sum of stamp duties, motor tax, customs, capital gains tax and capital acquisition tax. For 2018, Other and the Total tax revenue growth forecasts discount for the effects of the local property tax and motor tax in order to allow for comparison between 2017 and 2018. The growth of Other in 2018 is 18.3 per cent, which is not shown for scale purposes, and largely relates to the increase in stamp duties on commercial real estate transactions.

Relatedly, Appendix Figure D.2 identifies the factors that contribute to the year-on-year changes in revenue forecasts produced by the Department of Finance for 2018–2021. The positive increases in corporation tax and VAT are both supported mainly by favourable macroeconomic prospects (see Appendix D for a detailed description of how these are calculated). Other factors, including judgement applied by the Department of Finance, also lead to robust VAT growth over the projection horizon. The PAYE and USC components of income tax are negatively affected by policy-induced measures. For PAYE, these are more than offset by strong macroeconomic effects, and partly offset for USC, which is forecast to follow negative growth over the medium term (2019–2021).

Excise duties are forecast to follow a substantially slower growth than the other three main tax heads. Furthermore, their growth is projected to be negative in 2018, largely driven by the continuing drag from tobacco receipts – after the introduction of the domestic plain packaging on tobacco products, which came into effect on 30 September 2017. As depicted in Appendix Figure D.2, this one-off factor has negatively pulled down the 2018 excise duties forecast, together with other factors such as downward judgement applied by the Department of Finance. Figure 3.11 shows an increasing growth in excise duty revenues since mid-2017, which is again declining since January 2018. This largely relates to timing issues around plain packaging requirement of tobacco products – receipts that might have been expected

to be collected in 2018 actually occurred in 2017.[48] Given that this downward trend is not expected to recover in 2018, lower receipts are estimated for the year. The effects of plain packaging are, however, assumed by the Department of Finance to be temporary. In fact, the growth of excise duties for 2019–2021 is projected to average 3 per cent per annum.

Figure 3.11: Excise Duty Revenues (2011 to end-April 2018)
€ million, 12-month-rolling sum



Sources: Department of Finance; and internal IFAC calculations.

Non-tax revenue is expected to gradually decline over the forecast horizon (Figure 3.12). For 2018, non-tax revenue has increasingly been revised up since *Budget 2017*, as shown in Figure 3.12 (panel A). The upward revision at *SPU 2018* (€0.4 billion higher than in *Budget 2018*) is largely due to the higher-than-expected dividend payments to the Exchequer from the Central Bank of Ireland. For 2019, non-tax revenue forecasts have also tended to be revised up (excluding *Budget 2017*). Conversely, in 2020 and 2021, the *SPU 2018* forecasts for non-tax revenue are the lowest projected since 2016. For the period 2019–2021, non-tax revenue projections are made on the assumption the Central Bank will continue to make payments to the Exchequer over the medium term, albeit these are projected to decline over time.[49]

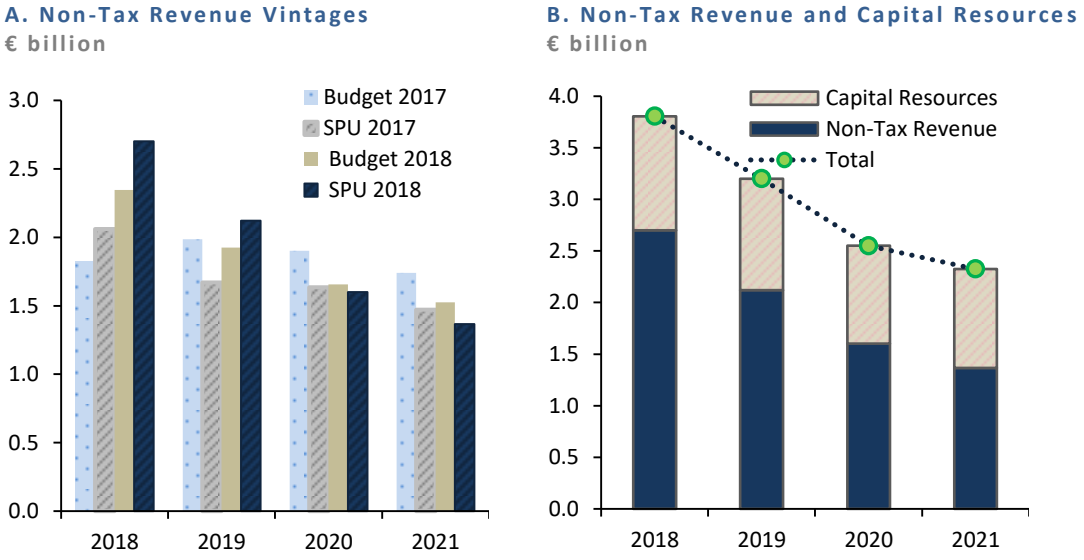
Capital resources remained broadly unchanged from *Budget 2018* (an upward revision of 2.7 per cent in 2018 is followed by a downward revision of 2.5 per cent on

[48] The graph also suggests that a spike in excise duty in 2016 was driven by the expectation that the plain packaging requirement would take place in that period (ultimately the move to plain packaging did not occur as originally anticipated).

[49] This refers to the Central Bank's disposal of floating rate notes, which were issued in order to replace the promissory notes originally issued to recapitalise Anglo Irish Bank and Irish Nationwide Building Society (Department of Finance, 2018).

average for 2019–2021). For 2018, changes to scheduled receipts from IBRC are expected to benefit the Exchequer by €0.2 billion.[50] For the medium term, forecasts on capital resources do not include assumptions on the resolution of the financial crisis, as discussed in the fiscal risks matrix (Table 3.5). The *SPU 2018* forecasts on capital resources are displayed in panel B of Figure 3.12.

Figure 3.12: Non-Tax Revenue and Capital Resources



Sources: Department of Finance; and internal IFAC calculations.

Box G: Capital Expenditure and the National Development Plan

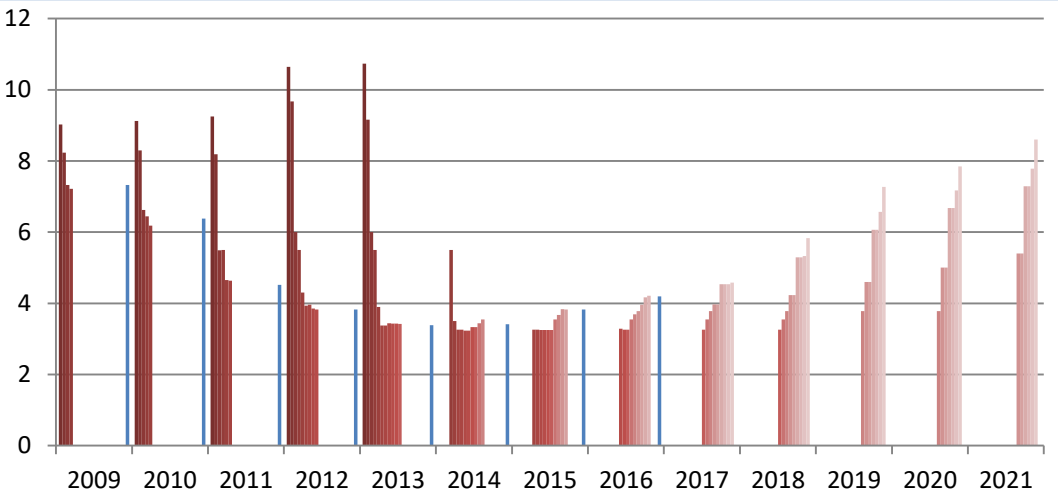
In light of the recently published National Development Plan, this box examines how previous and current plans for capital spending have evolved over time. Figure G.1 shows the evolution of planned gross voted capital expenditure along with the outturns.

Plans for future capital expenditure appear to be linked to the economic cycle. In the 2009 – 2014 period, previously ambitious plans for investment were curtailed after the crisis took hold. For future years, one can see that planned capital expenditure has been revised up significantly over successive budgets. This has happened as Ireland has experienced strong growth as part of a cyclical upturn.

The National Development Plan notes that public investment as a share of GDP both in Ireland and in the EU averaged at around 3 per cent for the period 1995-2015. The National Development Plan indicates that public capital investment is to reach 4 per cent of GNI* in 2024 (the Government's targeted level) and average at that level over the period 2022 – 2027. If taking GNI* as an appropriate measure of national income for Ireland, then public capital investment in Ireland would be well above the EU average.

[50] Given that the majority of these are financial transactions, this will not impact the general government revenue.

Figure G.1: Vintages of planned capital spending
€ billion, gross voted capital expenditure

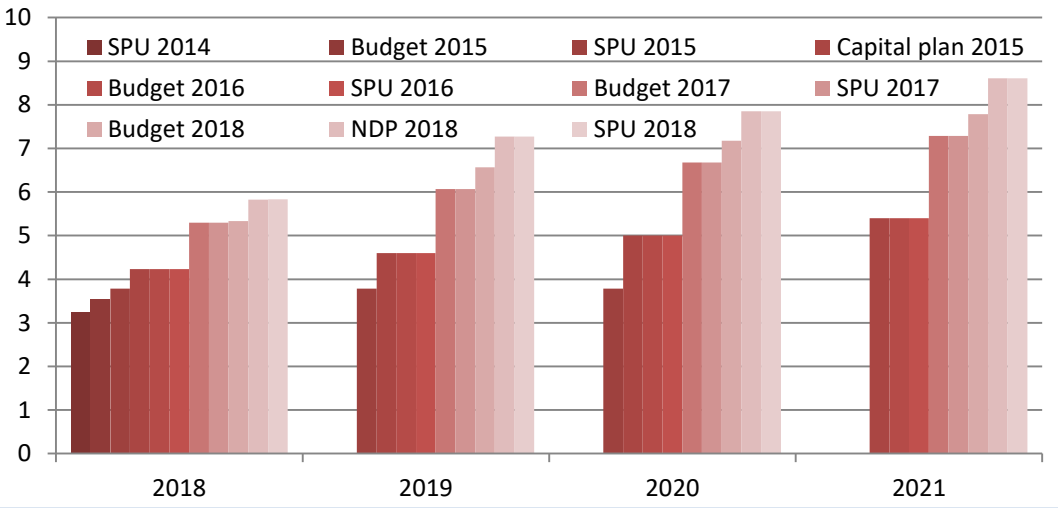


Sources Department of Finance; and internal IFAC calculations.
Note: Outturns in blue, darker red bars indicate older vintages; lighter red bars indicate more recent vintages. The oldest vintage used is the 2007 Capital plan, while the most recent vintage is SPU 2018. All SPUs, budgets and capital plans in the intervening period are included.

As noted in the last *Fiscal Assessment Report* (Box G, IFAC 2017d), committing to a specified level of investment (as a percentage of an indicator such as GNI*) could prove useful in setting fiscal policy. If adhered to over the cycle, it could help prevent cuts to public investment in downturns and excessive growth in cyclical upswings.

However, looking at plans as they stand, public investment is set to increase by a third between 2018 and 2021. Given that growth is already forecast to be strong over this period, this increase in capital expenditure will need to be carefully managed as part of the overall fiscal stance to ensure it does not contribute to potential overheating.[51]

Figure G.2: Vintages of planned capital expenditure (2018–2021)
€ billion, gross voted capital expenditure



Sources: Department of Finance; and internal IFAC calculations.
Note: Darker red bars indicate older vintages; lighter red bars indicate more recent vintages.

[51] The midpoint of alternative GDP estimates of the output gap in *SPU 2018* shows a positive output gap from 2019 to 2021.

Figure G.2 illustrates the upward revisions to gross voted capital spending plans (2018 - 2021) in recent years. Over the period 2019–2021, planned gross voted capital expenditure (in the National Development Plan and *SPU 2018*) is 58 per cent higher than was the case in the previous capital plan (Department of Public Expenditure and Reform, 2015). While these revisions have been taking place, there has been continuing strong growth and declining unemployment as a cyclical recovery took hold.

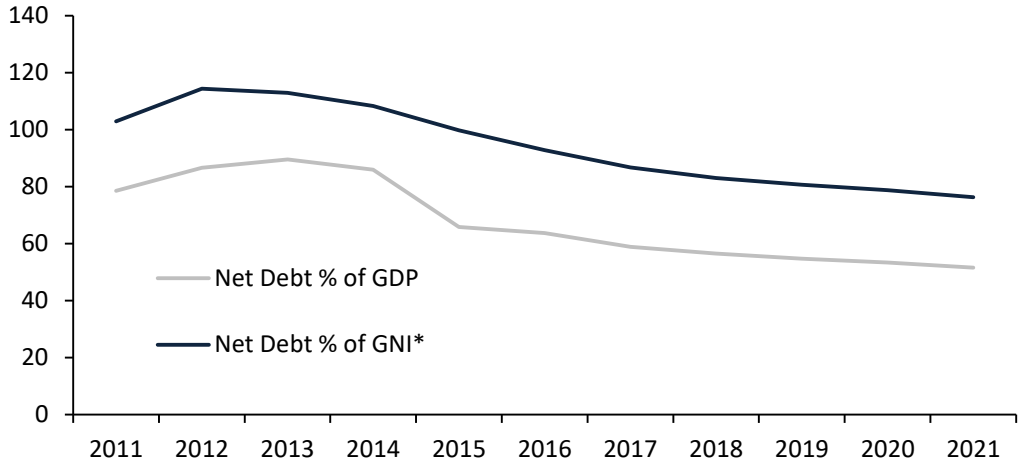
General Government Debt

Figure 3.13 shows the evolution of debt as forecast in *SPU 2018*. The debt-to-GDP ratio has fallen substantially since 2012. Two factors have played a significant role. The first is related to the high level of measured GDP growth in 2015. The second involves the liquidation of the IBRC, which led to lower liabilities being measured on the Government's balance sheet (in 2011, this had led to an increase in government liabilities of €20.9 billion; stripping out these liabilities, gross debt to GDP would have been 4 per cent lower annually). While the *Stability and Growth Pact* reference value of 60 per cent is set in terms of debt-to-GDP, it is worth remembering that for Ireland this 60 per cent of GDP reference value would be equivalent to 87 per cent of GNI* (using 2016 nominal outturns for both variables), which would rarely be considered a "safe" level of debt. Using GNI* or revenue as a denominator, government debt remains high relative to other OECD countries (see Figure 1.5 in Chapter 1).

Given some of these distortions and the relatively high cash balances run by the NTMA, net debt to GNI* is a more informative measure. Using this metric, the decline in debt levels is more gradual since 2012 and debt is expected to fall to 83 per cent in 2018 before falling to 76.3 per cent in 2021 (Figure 3.13).

Figure 3.13: General Government Debt

Percentage of GDP/GNI*



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

3.4 Long-Term Forecasts

While Ireland's current demographic situation is relatively favourable – mainly characterised by low old-age dependency ratios, high fertility rates and a positive migration profile –, the long-term projections offer a deteriorating picture.[52] In particular, the recent population projections released by Eurostat and included in the *2018 Ageing Report* (European Commission, 2018d) estimate that the population aged over 65 in Ireland will double as a share of total population in the long run (from 13.4 per cent in 2016 to 25.6 per cent in 2050). Conversely, working-age population is expected to decline (from 64.4 per cent of total population in 2016, to 56 per cent in 2050).

These forecasts, if they materialise, will exert strong budgetary pressures given their impact on age-related expenditure, chiefly pensions, health and social protection. As a share of GNI*, pension expenditure is forecast to rise from 7.3 per cent in 2016 to 9.6 per cent in 2070, as outlined in *SPU 2018*. This increase is also reflected in the old-age dependency ratio, which is forecast to grow from 20.9 in 2016 to 45.7 in 2050 (European Commission, 2018d).

An actuarial review of the Social Insurance Fund for 2015 (KPMG, 2017) provides an overview on the medium- and long-term evolution of the Fund. The Fund, whose resources are mostly devoted to pension expenditure, is estimated to turn from

[52] The old-age dependency ratio is the result of dividing the old-age population (aged 65 and above, in this case) by the working-age population (aged between 15 and 64, in this case).

surplus to deficit in 2020, and is expected to deteriorate as of 2021, largely due to demographic pressures. In addition, the excess of expenditure over income of the Fund is expected to increase significantly over the medium to long term.

In a recent publication, the Department of Public Expenditure and Reform (2017d) estimates the total cost of all future retirement benefits to be paid to serving and former public servants in respect of service to date. In particular, the value of the State's Accrued-to-Date Liability (ADL) of public service retirement benefits for employees, pensioners and former members is estimated at €114.5 billion as at (31 December 2015).[53] In addition, the latest CSO publication on Irish Pension Liabilities (CSO, 2018) shows that the total ADL liabilities of all pension schemes in 2015 amounted to €436.3 billion (or 252 per cent of GNI*).[54,55] This amount is, however, expected to increase as population ages in Ireland, in contrast with other EU countries with a more mature population (which should experience a more gradual growth in their liabilities).

In view of the demographic prospects and their underlying impact on expenditure, a number of reforms on pensions and long-term care in Ireland aim at mitigating the effects of an ageing population, as outlined in *SPU 2018*. Recognising these efforts, fiscal risks remain in Ireland. The latest *Country-Specific Recommendations* report for Ireland (European Commission, 2018c) outlined the long-term risks of a rapidly-ageing population in the country. Recommendations to tackle this include: (i) a timely implementation of the published roadmap for pension reform; and (ii) an efficient planning of the healthcare system, which is deemed "costly" and "facing many challenges". In this context, long-term projections are paramount in supporting public policy planning to drive the public finances towards a sustainable path.

[53] This €114.5billion refers to the present value of all expected future superannuation payments to current and previous staff and their spouses in respect of service to date, plus the liability for all future payments to current pensioners and their spouses (Department of Public Expenditure and Reform, 2017d).

[54] In comparison to other EU countries, this is still very low, reflective of Ireland's relatively young population.

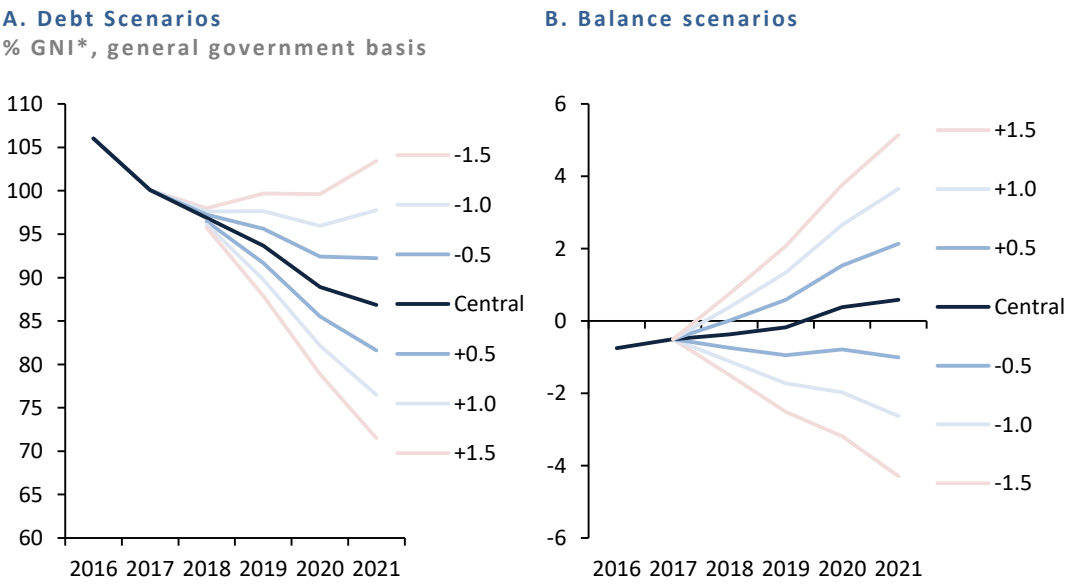
[55] From this total, only €90.8 billion is in private funded schemes. Unfunded liabilities in public pay-as-you-go schemes amounted to €345.5 billion.

3.5 Risks

While *SPU 2018* forecasts continuing improvements in the macroeconomic and fiscal outlook, substantial risks to the public finances remain. One of the most prominent risks continues to be uncertainty in relation to the external environment, in particular Brexit and possible changes to international economic and fiscal policy. Uncertainty with regard to US corporation tax changes means there is a downside risk in relation to Ireland's corporation tax receipts from US multinational corporations currently located in Ireland.

Another risk relates to discretionary revenue measures. In particular, failure to recognise the transient nature of certain sources of revenue could, if repeated, reduce the stability of tax revenues. The stamp duty increase on non-residential property introduced in *Budget 2018* is projected to bring in a yield that should be recognised as potentially transient. If revenues arising from this measure are used to fund long-term expenditure, the stability of tax revenues might be disrupted. In addition to the potentially transient nature of this revenue source, it has raised less than expected revenue to end April.

Figure 3.14: Debt and Budget Balance Paths under Different Growth Scenarios



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: Data obtained using the Fiscal Feedbacks Model: the lines depict how far the budget balance or debt-to-GNI* ratio would be pushed away from the *SPU 2018* scenario under different shocks to growth in each year.

Figure 3.14 shows how shocks to growth would impact on the general government balance and general government debt. A shock to GNI* growth of 1.5 percentage

points relative to *SPU 2018* forecasts each year from 2018 to 2021 would result in the general government balance being almost 5 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 of a surplus of 0.6 per cent of GNI*. In the same scenario, the currently high gross government debt-to-GNI* ratio would rise above current levels, in the absence of corrective policy action. A shock of this magnitude would not be exceptional given the historic volatility of Irish national income growth, for which a typical current year forecast error is close to 2 percentage points.

Table 3.5: Assessing the *SPU 2018* Fiscal Risk Matrix

Risk	Likelihood	Impact	IFAC Assessment
EU Climate Change and Renewable Energy Targets	H	H	Ireland seems unlikely to meet its 2020 emissions targets without purchasing more allowances, which could cost between €148 million and €455 million (Deane, 2017). Costs associated with missing later targets (2030) could be substantially higher (Curtin, 2016 estimates €2.7 to €5.5 billion). For the forecast horizon, a low impact may be more 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. In-year spending increases would also exacerbate the problem. The political cycle may also increase near-term budgetary pressures.
Corporation Tax Concentration Risks	H	M	Corporation tax receipts play an increasingly important source of tax revenue in Ireland. However, these are very volatile in nature and are highly concentrated. The top ten companies are responsible for nearly 40 per cent of the total corporation tax receipts, which makes this tax head exposed to idiosyncratic shocks. Corporation tax in 2017 recorded the second-highest share of tax revenues in the last 34 years, and the *SPU 2018* projections point to this share remaining high. In this context, sudden moves or financial under-performance of the top-ten companies could pose serious risks to this source of revenue. Adding to this, uncertainty about the effects of the US corporation tax reform and the path of EU and UK fiscal policy may suggest that this risk could have a relatively higher impact.
Sharper-than-Expected Activity Growth in Tax-Rich Sectors (IFAC Risk)	M	M	Pent-up demand in the housing sector could lead to strong growth in the construction sector. Given the tax-rich nature of housing output, rapid growth could imply a substantial increase in revenues arising from this source.
Reliance on Transient Revenues (IFAC Risk)	M	M	Failure to recognise the transient nature of certain sources of revenue could, if repeated, reduce the stability of tax revenues. This is particularly risky if transient revenue resources are used to fund long-term expenditure. For example, the increase of a transactions-based tax like stamp duties on non-residential property in *Budget 2018* was forecast to yield €376 million in 2018. Although it is still early to determine, this revenue source has cumulatively underperformed to end-April by 9.8 per cent (€44 million). It is therefore desirable to track the evolution of this tax source to quantify the accuracy of the forecasts around this policy-induced change in taxation.
EU Budget Contributions	M	M	If national income were to grow faster than expected then this would lead to a larger EU Budget contribution. *SPU 2018* has already revised up

Risk	Likelihood	Impact	IFAC Assessment
			expected EU contributions due to the stronger forecasts of economic growth. In addition, there is continuing uncertainty surrounding the impact Brexit will have on EU Budget contributions of the remaining members.
Changes to Tax "Drivers"	M	M	Tax forecasts are dependent upon macroeconomic projections and other components. For example, corporation tax forecasts are driven by forecasts around the Gross Operating Surplus (GOS), and the elasticity associated with this. The GOS forecasts are subject to a high degree of uncertainty, namely that related to international trading conditions and currency markets. Hence, changes in the composition of those macroeconomic components can have important impacts on the tax forecasts. This was the case for the PAYE-related USC receipts, whose elasticity was found to be almost half of what had been estimated (2.15 versus an updated estimate of 1.2). The updated elasticity implied revenues were estimated to be €85 million lower than initially forecast for 2017.
Litigation Risk	M	M	This risk refers to an adverse or unexpected outcome of litigation against the State, leading to increased expenditure. This could have a significant impact on expenditure and budgetary projections.
Dividend Payments	L	M	*SPU 2018* identifies risks in relation to lower-than-expected payments of dividends from the State's shareholding in banks and commercial semi-state companies. Such dividends are a function of business performance and outlook, over which the State has little control. If some of these assets are sold, then associated revenue streams would fall.
Receipts from Resolution of Financial Sector Crisis	L	M	For the purposes of prudence, budgetary projections do not include 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.
Contingent Liabilities	L	M	Contingent liabilities continued to fall in 2017, and now stand at 0.5 per cent of GDP or 0.7 per cent of GNI*. Given the reduced level of contingent liabilities, the Council assesses a low impact to be more appropriate.
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. At high debt levels, external shocks such as a harder-than-expected Brexit could lead to self-reinforcing fears in bond markets.

Sources: Department of Finance; and internal IFAC assessment.
Note: Likelihood and impacts from *SPU 2018:* H = High; M = Medium; L = Low.

4. Assessment of Compliance with Fiscal Rules

Key Messages

- The Medium-Term Objective (MTO) of a structural deficit no more than 0.5 per cent of GDP was reached in 2017, a year earlier than expected based on Budget 2018 projections. The degree to which cyclical factors were estimated to have improved the deficit was revised, leading to a smaller structural deficit. As the MTO was met in 2017, the requirements to adjust the structural balance in 2017 are not binding.

- Based on the Department's current CAM-based estimates of the output gap, it is likely that the structural balance adjustment requirement and expenditure limit for 2018 will be reset. In this case, the 2018 convergence margin under the Expenditure Benchmark would no longer apply and currently outlined spending plans will be less than the allowable limit, which is appropriate (Chapter 1). However, there is a risk of non-compliance with the MTO in 2018 based on current output gap estimates.

- Medium-term forecasts are provided to 2021 in *SPU 2018*, yet the Department should extend its horizon back to a five-year-ahead basis. Over the period 2019 –2021, plans currently show compliance with the rules. The structural balance is at risk of deteriorating beyond the MTO in 2018, leading to adjustment requirements in 2019. This deterioration is offset by an improvement in 2019, which is sustained over the medium term. This structural balance path is largely due to the estimated effects of the cycle, with the general government balance slowly improving.

- There are risks that the MTO might be breached again in 2018. However, if it is sustained, the Expenditure Benchmark will play a less binding role from 2019 and would not trigger non-compliance on its own. The Expenditure Benchmark allows more than enough scope to sustain current activities, while also allowing for increases in investment. The Council continues to recommend committing to adhering to the Expenditure Benchmark – at least as a minimum standard – even after the MTO is achieved. Doing so would help to ensure that spending growth is more sustainable than it otherwise would be, notwithstanding some degree of procyclical bias affecting the spending rule.

4.1 Introduction

A core function of the Council's mandate is to assess compliance with the fiscal rules. This includes Ireland's Domestic Budgetary Rule as set out in the 2012 *Fiscal Responsibility Act* (*FRA*). It also includes the EU fiscal rules with reference to the EU *Stability and Growth Pact* (*SGP*). This chapter examines the consistency of the projections contained in SPU 2018 with the Preventative Arm of the *SGP*. In particular it examines compliance in relation to the Medium-Term (Budgetary) Objective (MTO), and the Expenditure Benchmark.

The assessment of the rules in this chapter examines compliance on the basis of the Department of Finance's CAM-based estimates in the *SPU 2018* and considering the Council's own assessment of one-off/temporary measures.[56] No new one-off items have been included in *SPU 2018* since *Budget 2018*. Table 4.1 provides a summary assessment of compliance with the fiscal rules.

4.2 *Ex-Post* Assessment for 2017

As per the Fiscal Responsibility Act 2012, the Council assesses *ex-post* compliance with the fiscal rules under the domestic framework and the EU Preventative Arm. Final assessments of compliance with the rules for a given year are undertaken using outturn data released in Spring of the following year. The latest of such assessments is for 2017 (IFAC, 2018a). Figures relating to the structural balance presented in *SPU 2018* reflect estimates of the output gap and potential growth on the basis of an adjusted version of the Commonly Agreed Methodology (CAM). Adjustments were introduced by the Department of Finance in response to the higher-than-expected growth outturns in 2017 and the view that this was caused by substantive distortions unrelated to the domestic economy.[57]

[56] While the assessment of the rules is currently based on the EU Commonly Agreed Methodology (CAM), the Department of Finance has now developed alternative measures of the output gap. Under the Department's preferred alternative output gap measure, the MTO is assessed to have been surpassed as early as 2015, and the measure shows current plans maintaining the MTO over the medium term (2018-2021). The same semi-elasticity of the deficit to the output gap is used as for the CAM. See Chapter 1 for more details on compliance under the alternative estimates.

[57] The European Commission deemed that an adjustment to estimates of potential for 2017 would be appropriate. However, the exact implementation differed from what the Department had anticipated. This will be reflected in revised estimates from the Department.

Table 4.1: Assessment of Compliance with the Fiscal Rules[1, 2]

% GDP unless stated, deviations…negative=non-compliance

	2015	2016	2017	2018	2019	2020	2021
Corrective Arm:							
General Government Balance Net of One-Off Items	-1.9	-0.5	-0.3	-0.2	-0.1	0.3	0.4
General Government Debt	76.9	72.8	68.0	66.0	63.5	60.2	58.7
1/20th Debt Rule Limit[3]	109.0	95.7	81.9	71.2	68.0	65.2	62.8
Debt Rule met?	N/A	N/A	N/A	N/A	Y	Y	Y
Preventive Arm & Domestic Budgetary Rule:							
I. Structural Balance Adjustment Requirement							
MTO for the Structural Balance	0.0	0.0	-0.5	-0.5	-0.5	-0.5	-0.5
MTO met?	N	N	Y	N	Y	Y	Y
CAM Structural Balance	-1.5	-0.9	-0.5	-0.9	-0.4	0.1	0.3
Actual/Planned Change in CAM Structural Balance	1.9	0.3	0.5	-0.4	0.5	0.5	0.2
Minimum Change in Structural Balance Required	-	0.6	-	-[2]	0.1	0.0	0.0
1yr Deviation (€bn)	-	-0.7	-	-	1.1	1.9	2.9
1yr Deviation (pp)	-	-0.3	-	-	0.3	0.6	0.8
2yr Deviation (€bn)	-	-	-	-	-	1.5	2.4
2yr Deviation (pp)	-	-	-	-	-	0.4	0.7
II. Expenditure Benchmark							
Reference Rate of Potential Growth (% y/y) (R_t)	-	1.9	3.3	3.4	4.5	4.5	4.4
Convergence Margin (C_t)	-	1.8	0.0	0.0	0.6	0.0	0.0
Real Corrected Expenditure Growth Limit (% y/y) (= R_t - C_t)	-	0.1	3.3	3.4	4.0	4.5	4.4
Actual/Planned Real Expenditure Growth Rate (% y/y)	5.9	-1.2	3.1	1.5	2.2	0.9	2.9
1yr Deviation (€bn)	-	0.9	0.1	1.4	1.3	2.7	1.1
1yr Deviation (% GDP)	-	0.3	0.0	0.4	0.4	0.8	0.3
2yr Deviation (€bn)	-	-	0.6	0.8	1.4	2.1	2.0
2yr Deviation (% GDP)	-	-	0.2	0.2	0.4	0.6	0.6
Nominal spending increase permitted before DRMs* (€bn)	-	1.2	3.0	3.3	3.9	4.4	4.6
Actual/Planned spending increases before DRMs* (€bn)	4.4	0.3	2.9	2.0	2.5	1.7	3.4
Current Macroeconomic Aggregates							
Real GDP Growth (% y/y)	25.6	5.1	7.8	5.6	4.0	3.4	2.8
CAM Potential GDP Growth (% y/y)	4.8	5.4	8.0	4.7	4.7	3.7	3.2
CAM Output Gap	0.8	0.5	0.3	1.2	0.6	0.4	0.2
GDP Deflator Applicable (% y/y)	0.9	1.7	1.2	1.3	1.3	1.3	1.5

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

Notes:

[1] Assessments examine the *SPU 2018* revenue and expenditure plans, using the Department of Finance's estimates of potential output and considering the Council's views on one-off/temporary measures. No new one-off items have been included in *SPU 2018* however following publication of the SPU the Department indicated a capital transfer presently included as spending in 2021 may be included as a one-off in future estimates. At present this is not included in the above calculations. This treatment differs to that applied in the "Assessment of Compliance with the Domestic Budgetary Rule in 2017" (IFAC, 2018a), which used the Commission's Spring 2018 output gap estimates for the structural balance as these are the basis of ex-post assessments of compliance. 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.*

[2] The Council assesses the MTO as achieved in 2017 so that no further adjustments to the structural balance are required in 2017. Based on the current estimate of the 2017 structural balance an adjustment would not be required in 2018. However, the Commission will maintain some requirements fixed until the final assessment in Spring 2019. There is a risk that Spring 2019 estimates will not show the MTO as met in 2017 and the previous adjustment requirement would still apply. The MTO is due to be updated for 2020/2021. This update was unavailable at the time of writing and the MTO is kept constant at -0.5 per cent.

[3] The 1/20th Debt Rule requires that the debt-to-GDP ratio should make annual progress towards the reference value of 60 per cent of the GDP. A transition period applies till the end- 2018.

4.2.1 MTO and Structural Balance Adjustment Requirements

The MTO for Ireland for the period 2017-2019 was set by the Commission as a structural balance of -0.5 per cent of GDP. Assessing the structural balance on the basis of the Department of Finance CAM output gap estimates shows the MTO was achieved in 2017 with a structural balance of -0.45 per cent. Therefore, the adjustment requirement for 2017 no longer applies.[58] Box H examines the MTO and compliance with the fiscal rules over time.

Box H: Compliance with the Fiscal Rules Before the Crisis

This box examines the fiscal rules in the context of the run-up to the crisis years in Ireland (2004–2007). From 2000–2005, nominal GDP growth averaged 10.7 per cent, government revenue grew 9.9 per cent annually and the unemployment rate remained below 5 per cent. While such headline measures remained favourable during 2006 and 2007, by 2008 the downturn had begun: the unemployment rate increased to 6.8 per cent and nominal GDP contracted sharply by 4.8 per cent. A severe fiscal crisis ensued, contributing to a deep recession, despite the presence of fiscal rules intended to safeguard against unsustainability of the public finances.

The Medium-Term Budgetary Objective

Following its implementation in 1998, the EU *Stability and Growth Pact* was reformed in 2005 to incorporate a Medium-Term budgetary Objective (MTO) specific to each EU Member State. Progress toward achieving the MTO has been measured according to the structural budget balance. This is calculated by subtracting the cyclical component of the budget balance, estimated using output gaps produced by the EU Commonly Agreed Methodology, from the general government balance as a share of GDP along with any one-off or temporary items that apply. The MTO supplemented the existing *Pact* requirements in recognising the impact of the economic cycle on the public finances. Member States with large debt or deficits would enter an "Excessive Deficit Procedure", with potential sanctions applying if corrective actions were ignored.

The MTO therefore encouraged Member States to consider the underlying sustainability of budgetary policies. It recognised that adherence to the 3 per cent limit on budget deficits could mask unsustainable budgetary positions depending on cyclical or transient developments.

For the mid-2000s, Ireland's MTO was to maintain a budgetary position that was "balanced in structural terms".[59] The *Stability Programme Update (SPU)* for 2006 showed a structural surplus of 1.8 per cent of GDP for 2007, indicating significant over-compliance with the MTO requirements.[60] Figure H.1 compares Ireland's latest estimates of the cyclically adjusted budgetary position during the 2000s with historical real-time estimates that informed each year's upcoming budgetary plans at the time. The historical real-time estimates in Figure H.1 use figures from *SPUs* published in 2003–2006, while the latest figures are from *SPU 2018*.

While the historical real-time data show an underlying balance of close to zero for 2003–2006, an exception is the *SPU 2006* estimate for 2007, which indicates an underlying surplus of 2 per cent of GDP. The latest estimate shows an underlying deficit of 2½ per cent – a much less healthy budgetary position. However, 2007 is the only year from this period for which the revision to the underlying budgetary data is negative. Figure H.1 suggests that even in hindsight (except for 2007),

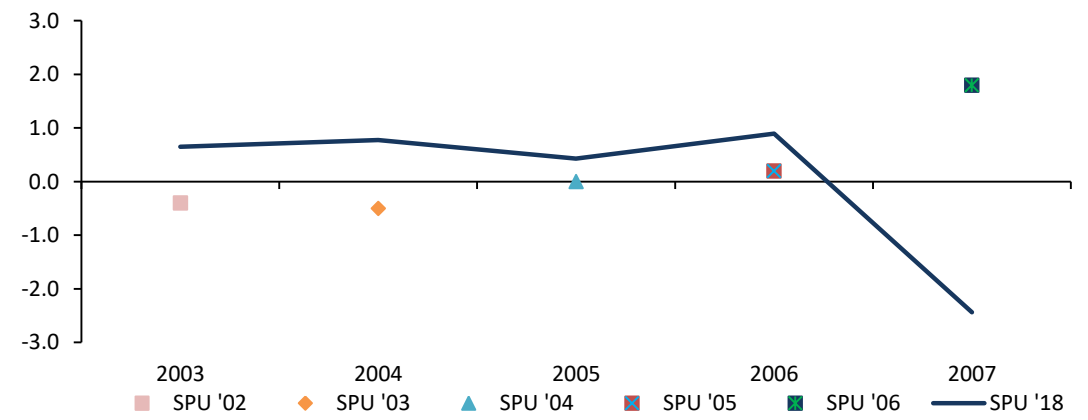
[58] Under the fiscal rules, structural balance adjustment requirements are formally set in the Spring of the previous year (year t-1) and can be reset only in Autumn t-1 or Spring t+1 (the *Vade Mecum on the Stability and Growth Pact 2018*). The 2017 requirements can now be reset following the publication of outturn data.

[59] European Commission (2007), page 5 of *Economic Assessment of the Stability Programme of Ireland* (update as of December 2006).

[60] European Commission *Autumn 2006* forecasts also showed compliance with the *Pact*.

the fiscal rules did not indicate concerns for the sustainability of the public finances.

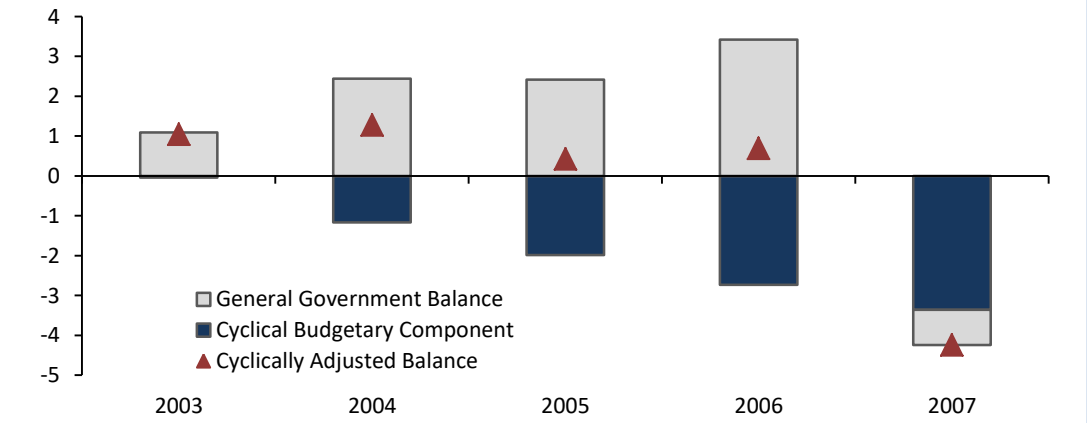
Figure H.1: Cyclically Adjusted Budget Balance for the Pre-Crisis Years
Per cent of potential GDP



Sources: Department of Finance.
Note: Historical *SPU* estimates for the cyclical budgetary component have been re-estimated here using the most recently available 'budget sensitivity factor', 0.5275.

Furthermore, the latest estimate of the budgetary position for 2003–2006 provides even less indication of the difficulties that lay ahead, compared to real-time data. Figure H.2 shows the revisions in estimates of the underlying budget balance for years prior to the crisis, with differences allocated between revisions to the general government balance and cyclical budgetary components.[61] Prior to 2007, the general government balance (GGB) (grey) consistently outperformed prior-year *SPU* forecasts, but the current estimates suggest that this revision should have been viewed as primarily cyclical (blue).

Figure H.2: Change in Estimates of the Cyclically Adjusted Budget Balance
Per cent of potential GDP (GGB per cent of GDP)



Sources: Department of Finance.
Note: Historical *SPU* estimates for the cyclical budgetary component have been re-estimated here using the most recently available 'budget sensitivity factor', 0.5275.

The Fiscal Rules and Sustainability of the Public Finances

Various changes have been introduced to the fiscal rules since the crisis, with the intention of improving the sustainability of fiscal policymaking in the European Union. However, design issues

[61] The differences compare each year's ex-ante forecast (informing budget-day decisions) with the latest estimate. These are not typical forecast errors, in that actual estimates are never observed.

with the fiscal rules remain, and the risk of severe fiscal crises is a particular concern for Member States with volatile economies. For Ireland and other small open European economies, the strict application of the EU methodology may produce implausible estimates of the output gap, meaning the cyclical budgetary component can be prone to significant measurement error. Such issues have been explored in greater detail in previous Council publications (IFAC, 2017e). While successive governments have achieved considerable success in stabilising the public finances since the crisis, overall, fiscal policy in Ireland over the past 15 years shows that real-time compliance with the fiscal rules is no guarantee of sustainability in the public finances. Caution is therefore advisable in order to mitigate the risk of future fiscal crises.

4.2.2 Expenditure Benchmark

The preventative arm of the *SGP* is designed to guide public finances towards the MTO. Under the fiscal rules, once the MTO is attained the Expenditure Benchmark does not formally apply.[62] As such an assessment of adherence to the Expenditure Benchmark is not strictly required for 2017. The Council recommends continued adherence to the Expenditure Benchmark, estimated using appropriate estimates of potential growth and the NAWRU, as a minimum standard to provide an anchor for the public finances, given the advantages it offers in improving the sustainability of spending growth over time. The performance of spending in relation to the Benchmark for 2017 is briefly examined here.

For Member States at the MTO, the convergence margin no longer applies as part of the Expenditure Benchmark. As shown in Table 4.1, once the convergence margin is eliminated, as the MTO is achieved, spending is within the expenditure growth limit.

4.3 In-year Assessment for 2018

The most recent data suggests that the MTO was attained in 2017 (Section 4.2). The adjustment requirements and spending limits for 2018 were set by the European Commission in Spring 2017, when this achievement was not anticipated (based on CAM estimates of the output gap). The Commission will not formally lift these requirements until Spring 2019 and so there is still a possibility that revisions to the structural balance could lead to an assessment that the MTO was not achieved in 2017 and hence the adjustment requirements for 2018 still being assessed.[63] Given

[62] Member States are not expected to over-achieve the MTO. Therefore, if the structural balance has exceeded the MTO in year t and budgetary plans do not jeopardise the MTO, deviations are not considered. However, the Expenditure Benchmark may still form part of the overall assessment of compliance with the fiscal rules (European Commission, 2018a).

[63] These requirements for 2018 could be reset only on two occasions: Autumn 2017 or at the Spring 2019 ex-post assessment.

that the MTO is currently estimated to have been achieved in 2017, however, the Council's assessment assumes that requirements outside of sticking to the MTO will not apply for 2018.

4.3.1 MTO and the Structural Balance Adjustment Requirements

The adjusted-CAM-based structural balance may widen to a deficit of 0.9 per cent of GDP in 2018 (Figure 4.1a); a deterioration from the MTO of 0.4 percentage points (Figure 4.1b). [64,65] This indicates there are risks to MTO achievement in 2018 using these output gap estimates, but any improvement in the balance to –0.75 or above will be deemed compliant with the MTO.[66] As the MTO has been reached in 2017, and the structural balance path is based on distance from the MTO in the previous year, it is likely the 2018 structural balance requirement will be revised in Spring 2019.[67] Therefore, in Spring 2019 the 2018 adjustment path will likely no longer apply (the dashed line in Figure 4.1b).

The 2018 structural balance deterioration is followed by a counteracting improvement in 2019. The path of the structural balance is largely due to the cyclical component, which is determined by large movements in the adjusted-CAM estimates of the output gap (Figure 4.2) against the background of relatively slow improvement in the general government balance. While compliance with the MTO and the domestic Budgetary Rules are important, the deterioration in 2018 is an artefact of the methodology used to calculate the cyclical adjustment and the deviation would be corrected the following year.[68]

[64] This planned change in the structural balance would not meet the previously set minimum required adjustment of 0.58 percentage points. Current estimates show a significant deviation in the adjustment path condition on a one- and two-year basis, compared to this requirement.

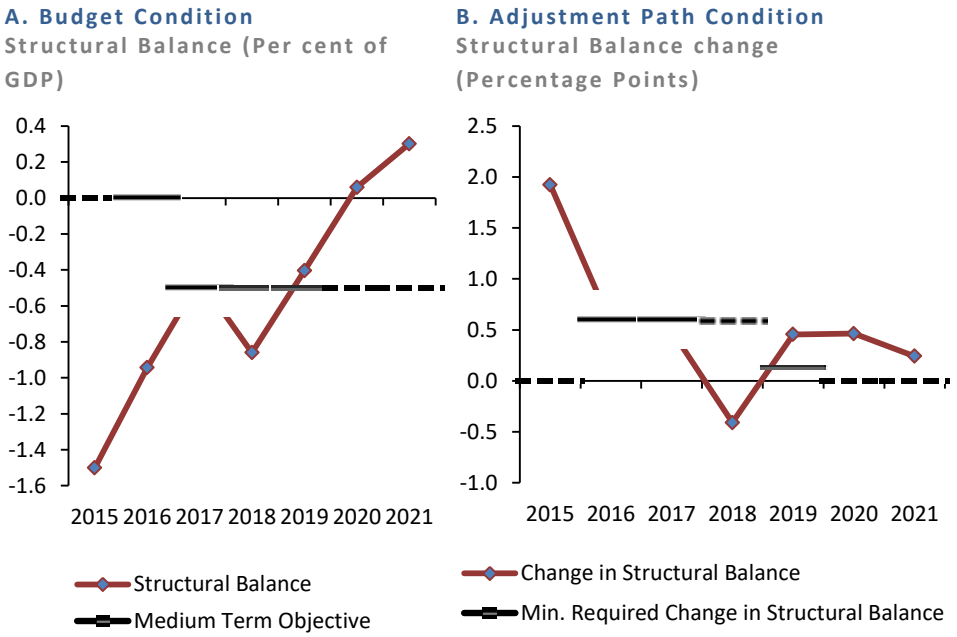
[65] Adjustments to the CAM were introduced by the Department of Finance in response to the higher-than-expected growth in 2017 outturns (Section 2.2).

[66] Under the Commission's current output gap estimates the 2018 structural balance (-0.6) is assessed as within the margin of tolerance for the MTO and 2018 is deemed broadly compliant.

[67] There is still a risk that in Spring 2019 the estimates of the structural balance will not show the MTO as met in 2017. This would lead to the previous adjustment requirement still applying.

[68] Estimates at the time of the *November 2017 FAR* (IFAC, 2017e) suggested that the output gap would fall from +1.6 to +0.7 per cent of potential GDP from 2017 to 2018. Given the pace of growth in the economy, the change in the output gap is more likely to be positive than negative over this period (Chapter 1 and 2). The most recent estimates of the output gap show an increase from +0.3 to +1.2 per cent of potential GDP from 2017 to 2018. The November 2017 FAR also examined issues in relation to estimates of the output gap using the CAM and its impact on the structural balance. Chapter 1 examines the implications for the structural balance and the Expenditure Benchmark of the alternative output gap estimates produced by the Department of Finance in *SPU 2018*.

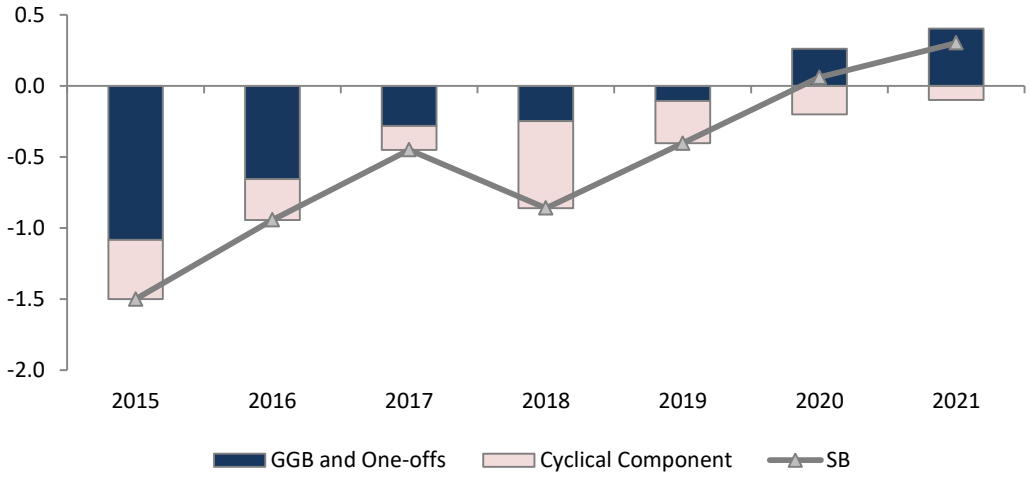
Figure 4.1: Assessment of Compliance with the Budgetary Rule



Sources: Department of Finance; and internal IFAC calculations.
Note: Dashed black lines indicate conditions that are not yet determined or are not expected to apply once the MTO has been reached. The minimum MTO for Ireland 2017-2019 is set at 0.5 per cent. This was achieved in 2017 and so the 2018 adjustment path condition is expected not to apply once requirements are re-examined in 2019. As there is a risk that the MTO will not be achieved in 2018, the adjustment path may still apply until the MTO is once again achieved. Required changes are calculated based on the previous year's structural balance.

Figure 4.2: Structural Balance Decomposition

Per cent of GDP



Sources: CSO; Department of Finance; and internal IFAC calculations.
Note: The cyclical budgetary component is estimated as: 0.5275 × output gap, where the output gap is the Department of Finance's CAM-based estimate.

4.3.2 Expenditure Benchmark

When the MTO is reached, expenditure is no longer limited by the convergence margin and it can grow in line with estimated potential GDP growth.[69] However, limiting expenditure growth in line with the reference potential growth rate could ensure that the MTO is maintained. Assuming that requirements are reset in Spring 2019 such that the convergence margin no longer applies for 2018, planned spending is within the limit of permitted expenditure growth.[70]

4.4 *Ex-ante* Assessment for 2019–2021

This section assesses the Department's plans in terms of compliance over the period 2019–2021. The plans suggest that the MTO will be exceeded from 2019 onwards, albeit that the budgetary plans over this period could be looser than currently forecast (Chapter 1). The Debt Rule, which has been subject to transitional arrangements since 2016, will apply in full in 2019, but is likely to be a relatively less binding constraint, with the debt ratio expected to fall below the 60 per cent of GDP reference value in 2021.[71]

4.4.1 MTO and Structural Balance Adjustment Requirements

Current estimates suggest that the structural balance, which is at risk of deviation from the MTO in 2018, will return to within the MTO in 2019. The MTO was set for 2017–2019 at -0.5 per cent of GDP. Plans outlined in *SPU 2018* show a structural balance of -0.4 per cent of GDP in 2019 and overachievement of the MTO. Following the Commission's *Spring 2018 Forecasts,* there is an adjustment requirement of 0.1

[69] As with the structural balance, the requirements of the Expenditure Benchmark cannot be formally reset by the European Commission until spring 2019 as part of its *ex-post* assessment. However, given the current 2017 estimate of the structural balance it is likely that the requirements will be reset, which will eliminate the convergence margin. The Expenditure Benchmark is still assessed as part of an overall assessment of compliance. If overachievement of the MTO is due to significant revenue windfalls, deviations in the Expenditure Benchmark will be considered (European Commission, 2018a).

[70] Assessing the expenditure plans in *SPU 2018* against the Commission's current requirements shows a planned breach of the Expenditure Benchmark on a one-year basis and a significant deviation on a two-year basis in 2018.However, on the basis of MTO achievement in 2017, it is likely these requirements will be reset.

[71] The transition arrangement was put in place for countries with a debt ratio greater than 60 per cent of GDP in the Excessive Deficit Procedure 8 November 2011. Over the transition period, countries are assessed on whether they are making sufficient progress towards debt criteria compliance. The adjustment over this three-year period is the least demanding after taking account of the effect of the cycle and the forward-looking rule, while still ensuring the debt rule is complied with by the end of the transition arrangements.

per cent of GDP in 2019 due to the forecast non-maintenance of the MTO in 2018.[72] Under the SPU plans this requirement is expected to be met. Provided the MTO is met and maintained no further adjustments would be required and deviations from previously set requirements would not be formally assessed.[73]

The MTO and adjustment requirements have yet to be set for 2020 and 2021. These requirements will be set in line with the European Commission guidelines (European Commission, 2018a) and will depend on the assessment of compliance in the preceding years, the general government balance and the estimates of the output gap. For detail on how the MTO is set, see Box F (IFAC, 2016a). Based on current estimates, the MTO would be maintained regardless of whether it remains at -0.5 per cent or if a more demanding target of 0.0 per cent is adopted.

4.4.2 Expenditure Benchmark

Given the risk of non-achievement of the MTO in 2018, the spending growth limit for 2019 under the Expenditure Benchmark will be reduced to ensure adjustment back towards the MTO. A "convergence margin" will apply, thus limiting expenditure growth to a pace below the ten-year average of potential output growth (the "reference rate") (as shown in Table 4.1). Once the MTO is achieved and maintained the convergence margin will not apply thereafter.[74] The plans outlined in *SPU 2018* currently show compliance with this requirement (2019–2021).

4.4.3 Debt Rule

The Debt Rule requirements will take full affect following the closing of the three-year transition period at the end of 2018. In essence the Debt Rule requires that the debt-to-GDP ratio should make annual progress towards the reference value of 60 per cent of GDP.[75] This rule is not likely to be a binding constraint on fiscal policy over the medium term. As outlined in Table 4.1, the reduction in the general government debt

[72] Although the structural balance for 2018 is assessed by the Commission to be within the margin of tolerance (within 0.25 per cent of the MTO), the Commission still requires the difference between this margin and the exact MTO to be adjusted for in the following year.

[73] While technically, under current requirements, there is an expected significant deviation in 2019 on a two-year basis, this is largely driven by the projected deviation in 2018. If the 2018 requirements are reset in Spring 2019 this two-year deviation is unlikely to still apply, as set out in Table 4.1. Furthermore, if the MTO was met in 2019 this requirement would not be formally assessed.

[74] The Expenditure Benchmark is still assessed as part of an overall assessment of compliance. If overachievement of the MTO is due to significant revenue windfalls, deviations in the Expenditure Benchmark will be considered (European Commission, 2018a).

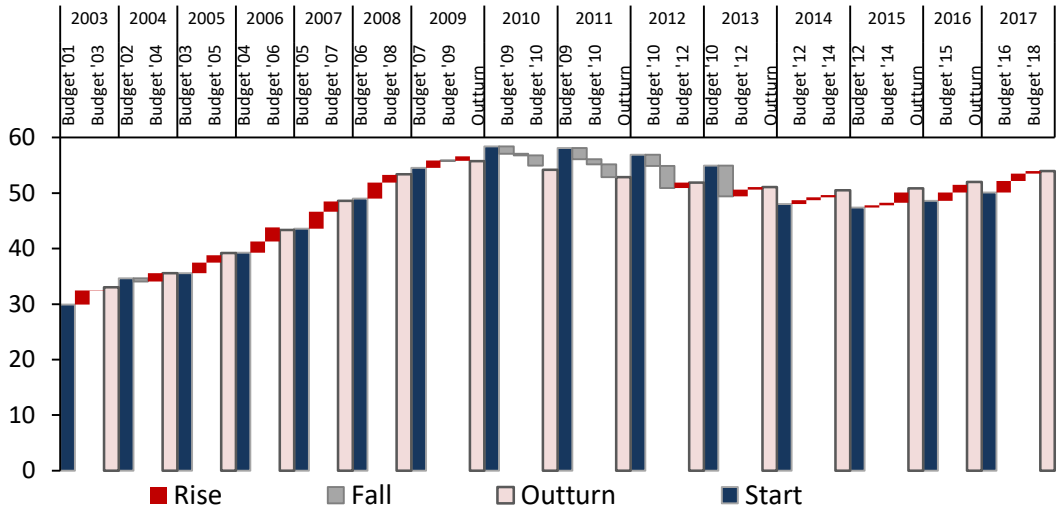
[75] The rule requires the debt ratio to fall by an average of one-twentieth of the excess between this limit and the actual debt ratio. For more information on the debt rule, see Howlin (2014).

is projected to exceed the requirements of the one-twentieth rule on the basis of existing plans and will fall below the 60 per cent of GDP reference value in 2021 after which the one-twentieth rule will no longer apply. Although the official assessment of the debt position under the rules is based on GDP, consideration should also be given to other measures such as the debt-to-GNI* ratio and debt-to-revenue due to the poor link between GDP and debt-servicing capacity for Ireland.[76]

4.5 Medium-term Expenditure Framework

Ireland's domestic budgetary framework is defined by the Medium-Term Expenditure Framework (MTEF). The MTEF was introduced to provide a better mechanism of expenditure management and certainty over the medium term. Under the MTEF the Government must provide three-year-ahead ministerial expenditure ceilings for each Department consistent with aggregate spending growth allowed under the Expenditure Benchmark. While these expenditure ceilings were designed to act as an upper limit for expenditure, aiding expenditure management and control, in practice repeated revisions to these ceilings impede their usefulness. Figure 4.3 below shows the pattern of revisions to expenditure forecasts since 2003, leading up the introduction of the MTEF in 2011, and following its introduction.

Figure 4.3: Evolution Gross Current Expenditure Forecasts
Percentage change (year-on-year)



Sources: Department of Finance; and 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).

[76] General government debt as a per cent of GNI* is expected to reach 86.8 per cent in 2021.

A clear cyclical pattern is visible, with increases in expenditure in the lead up to the crisis: a time characterised by strong, albeit unsustainable, growth. This was one of the factors leading to the introduction of the MTEF in 2011. Successive downward revisions of ceilings and ultimately lower outturns are seen following the crisis. Recently, the pattern of upward revisions to spending ceilings has returned. A continuation of such procyclical adjustments could undermine future public spending management. As noted in previous *Fiscal Assessment Reports* continuous upward revisions of ceilings reduce their credibility and contribute to the problem of a "soft budget constraint".[77] In turn, this can lead to further subsequent revisions in future. As discussed in Box I, the European Commission is seeking to strengthen medium-term fiscal sustainability in part through increased focus on the medium-term path of public expenditure.

Box I: The Medium-term Orientation of the Fiscal Framework

This box considers the possible implications of the proposed EU Council directive "laying down the provisions for strengthening fiscal responsibility and the medium-term budgetary orientation in the Member States" (European Commission, 2017d). The proposal seeks to support medium-term planning to a greater extent by improving the medium-term focus of the fiscal rules, in particular in relation to the growth path for expenditure.

The Council, along with other members of the Network of EU Independent Fiscal Institutions (IFIs), welcomed this proposed directive in a statement by the Network.[78] While the proposed role of IFIs in determining the adequacy of the medium-term requirements has yet to be clarified, the greater focus on fiscal sustainability and the medium-term path of expenditure is broadly seen as positive by the Council.

Medium-term Fiscal Framework

The proposed directive requires strengthening of the medium-term fiscal framework in domestic legislation, to support fiscal sustainability. The suggested approach aligns to the existing structural balance and Expenditure Benchmark rules:

(i) The MTO would be set to achieve a ratio of government debt to GDP not in excess of the reference value of 60 per cent.

(ii) A new medium-term growth path of government expenditure net of discretionary revenue measures consistent with the MTO or adjustment path towards it.

The second part shifts focus from incremental expenditure planning to a medium-term outlook.

Greater Focus on Medium-term Expenditure Growth

Presently, the fiscal rules involve setting expenditure limits annually through the Expenditure

[77] 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.

[78] http://www.euifis.eu/images/STATEMENT_FINAL.pdf

Benchmark. The permitted expenditure growth rate is set in the Spring of the previous year on the basis of the European Commission Spring Forecasts.[79] In contrast, the new proposal would set the path for government expenditure growth at the start of a new government's term. This would then apply for the entirety of the government's term. This path would be set so as to ensure that fiscal plans adhere to the MTO or converge towards it over the medium-term.

The proposed changes have two key potential advantages:

- A less incremental year-by-year approach to expenditure plans and a more medium-term emphasis.
- Preventing contribution to expenditure drift over time, a feature of the current rules.

Expenditure drift occurs under the current fiscal rules because any deviation in spending in one year is built into the base for determining the expenditure limit in the following year. In the event of a positive deviation in expenditure, the annual approach sees expenditure grow from the higher level of spending (the opposite could also be true if the expenditure outturn were temporarily lower than allowable spending, leading to expenditure growing from a lower base). Such deviations could lead to a drift in expenditure over time to unsustainable levels.

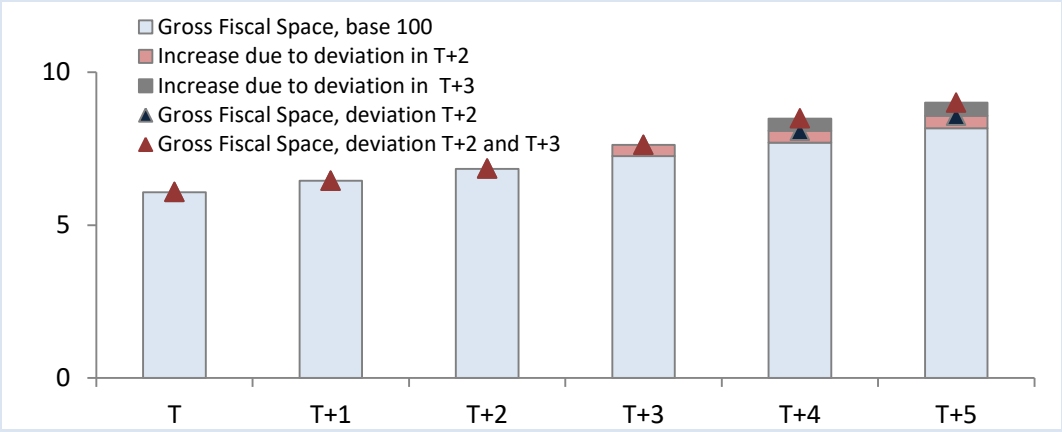
The proposed changes may eliminate this drift as the growth path of expenditure would be set at the outset of the government's term and actual expenditure could be assessed against this path. Any positive or negative deviation would need to be unwound the following year. This is important to avoid expenditure slippages being rewarded with higher spending in future years, and to avoid prudent policies whereby less is spent than allowed by the ceiling leading to permanently lower spending.

Illustration of How this Would Work

Figure I.1 provides an illustrative example of the possible impact of the proposed change. Assuming a new government is formed in period T and expenditure in T-1 was €100 billion. Given a reference rate of 4 per cent, a deflator of 2 per cent, and no convergence margin, the expenditure limit would be 6.1 per cent. Assuming this rate applies for the following five years, setting a medium-term path of expenditure for the term of the government would lead to gross fiscal space of €42.5 billion. This would be the case under the proposed rule changes.

Figure I.1: Illustrative scenario gross fiscal space under alternative spending paths

€ billion, change year-on-year



Sources: Internal IFAC calculations.
Notes: This scenario does not include any discretionary revenue measures.

However, if expenditure limits are reset annually, as under the rules presently in place, this path

[79] The real expenditure growth rate is set using a reference rate calculated using a forward- and backward- looking 10- year average of potential growth. Where a country is not at its MTO, a convergence margin is applied based on the required annual adjustment in the structural balance toward the MTO.

may change. If there was a deviation from allowable expenditure in T+2 by 5 per cent, leading to an outturn and new base of €125 billion for T+3, the gross fiscal space calculated for the period T to T+5 could be €43.7 billion. Furthermore, if there was a further deviation of 5 per cent in period T+3, the expenditure base for period T+4 would be €139.5 billion, and the gross fiscal space over the period T to T+5 would then increase to €44.5 billion. As such, deviations in expenditure from plans may lead to an increasing drift away from the original expenditure path.

Medium-term Budgetary Planning

The new approach under the proposed regulation could strengthen medium-term expenditure planning. As discussed above there are benefits in terms of fiscal sustainability as the new rules could ensure that deviations in expenditure are not built into the base. Furthermore, setting expenditure limits at the start of a government's term could allow for more certainty with regard to expenditure over the term. This could improve medium-term budgeting by providing more credible ceilings for expenditure hence avoiding the soft budget constraint (an issue discussed in previous Fiscal Assessment Reports for example see IFAC, 2017b, 2017d). Additionally, it could improve accountability under the rules as actual expenditure could be assessed against the planned expenditure path to identify deviations more accurately throughout the period.

Appendix A: Timeline for Endorsement of SPU 2018 Projections

Date	
15 March	CSO release *Quarterly National Accounts* estimates for Q4 2017.
21 March	The Secretariat and Department of Finance met the CSO to clarify technical details of latest *Quarterly National Accounts* estimates.
22 March	The Secretariat received Department of Finance technical assumptions underpinning *Budget 2018* forecasts.[80]
26 March	After consideration by the Council, Benchmark projections were finalised by the Secretariat prior to receiving preliminary forecasts from the Department of Finance.
27 March	The Council received preliminary forecasts from the Department in line with *Memorandum of Understanding* requirements.
29 March	The first endorsement meeting took place with the Department of Finance presenting their forecasts to the Secretariat. A number of clarifications of a factual nature were requested.
4 April	The Council received final forecasts from the Department. The transmission included updated supply-side estimates based on an adjustment to the Commonly Agreed Methodology.
5 April	The Council met to discuss the Department of Finance forecasts.
6 April	Department of Finance staff met with the full Council and Secretariat to present their latest forecasts and to answer questions. The Council sought information in relation to a number of forecast components and adjustments to the Commonly Agreed Methodology. Following verification of the correct application of the Department's adjusted methodology, the Council then finalised a decision on the endorsement.
10 April	The Chair of the Council wrote a letter to the Secretary General of the Department of Finance endorsing the demand-side set of macroeconomic forecasts underlying *SPU 2018*.
17 April	The Department's forecasts are published in the draft *SPU 2018.*

[80] 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 26 March 2018)

Benchmark Projections for 2017–2023

% change in volumes unless otherwise stated

	2017	2018	2019	2020	2021	2022	2023
Demand							
Real GDP	8.1	6.4	4.3	3.6	2.6	2.5	2.5
…of which (p.p. contributions)							
Underlying Domestic Demand (pp)	1.6	1.4	1.7	1.2	1.3	1.2	1.3
Underlying Net Exports (pp)	6.6	5.0	2.6	2.4	1.3	1.3	1.2
Consumption	2.8	2.4	2.2	1.8	2.3	2.7	3.0
Investment	-22.3	1.9	3.9	2.3	1.9	0.9	1.2
Underlying Investment	5.7	4.5	8.8	5.0	4.0	1.8	2.4
Government	1.8	1.9	1.9	1.8	1.7	1.7	1.7
Exports	6.9	6.1	4.3	4.3	3.6	3.4	3.4
Imports	-6.2	2.8	3.2	3.5	3.7	3.5	3.5
Underlying Imports	1.5	3.3	3.7	4.0	4.3	4.0	4.0
Labour Market							
Employment	2.9	2.4	2.3	2.0	1.9	1.9	1.9
Labour Force (LF)	1.0	1.1	1.2	1.6	1.9	1.9	1.7
Unemployment Rate (% LF)	6.7	5.5	4.5	4.1	4.1	4.1	4.0
Prices							
HICP	0.3	1.7	2.3	2.4	2.5	2.7	2.8
Personal Consumption Deflator	1.3	1.5	2.4	2.6	2.7	2.8	3.1
GDP Deflator	-0.3	0.0	1.2	1.3	1.4	1.4	1.5
Other							
Nominal GDP	7.8	6.4	5.5	5.0	4.0	3.9	4.1
Nominal GDP (€ billion)	297.1	316.2	333.8	350.4	364.3	378.4	393.8
Adjusted Current Account (% GNI*)	0.0	5.1	5.3	5.8	5.3	4.9	4.2

Sources: Internal IFAC calculations.
Note: CSO outturn data for 2017 based on the *Quarterly National Accounts* have been adjusted in anticipation of upward revisions to services consumption. Underlying contributions to real GDP growth rates are in percentage points. These exclude the effect of investment in aircraft and intangible assets. Domestic demand includes changes in inventories. Rounding can affect totals.

Appendix C: Imbalance Indicators

The Council uses a "modular" approach, as part of its toolkit for examining the cyclical position of and imbalances in the economy. While estimates of the output gap and potential output are useful summary measures, they may not adequately reflect all of the available information relevant for the assessment of the sustainability of economic developments.[81]

This appendix assesses some indicators of potential imbalances in the Irish economy taking forecasts from *SPU 2018* where available. Within each module, a number of indicators are examined. Four modules are shown here, namely:

(i) the Labour Market,

(ii) the External Sector,

(iii) Investment/Housing; and

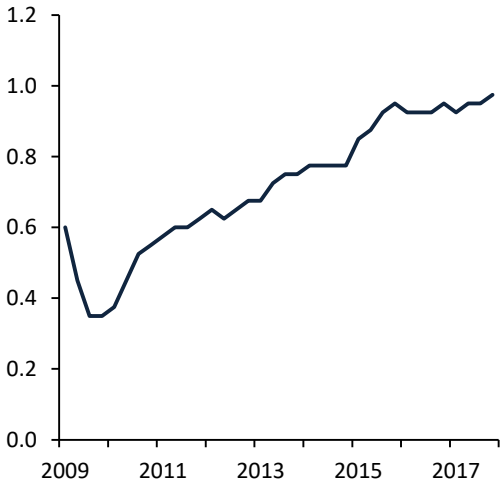
(iv) Credit

While this modular approach ensures that many potential sources of imbalance are examined, there are difficulties in assigning/estimating the relative importance (or weights) to attach to each of these imbalance indicators. Historical data may be a good guide to variables that explain previous business cycles, for example, but not necessarily current or future ones.

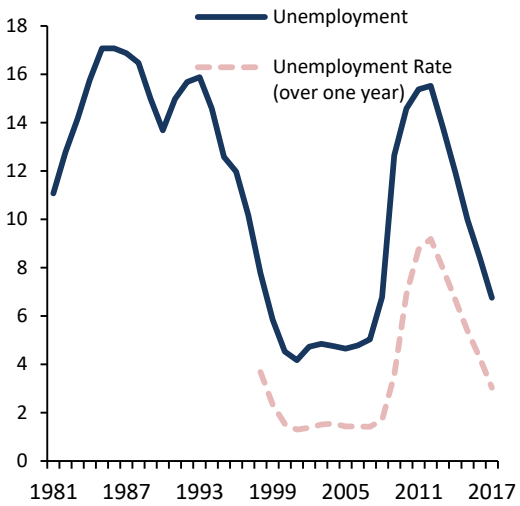
[81] Borio *et al.* (2014) developed methods of estimating potential output using financial indicators to capture the effect of the financial sector on the business cycle. This type of approach can potentially be extended to other variables.

Figure AC.1: Labour Market Indicators

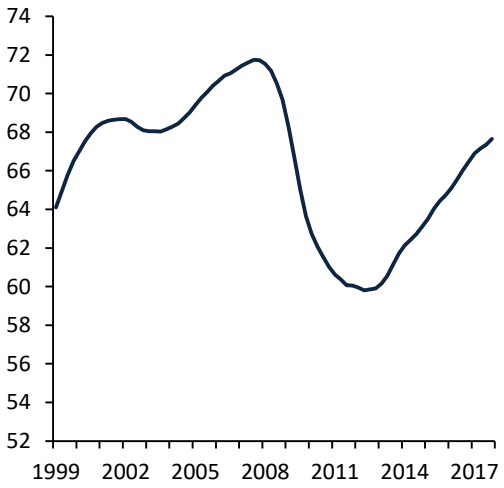
A. Private Sector Job Vacancy Rates[1]
Percentage of Private Sector Employment



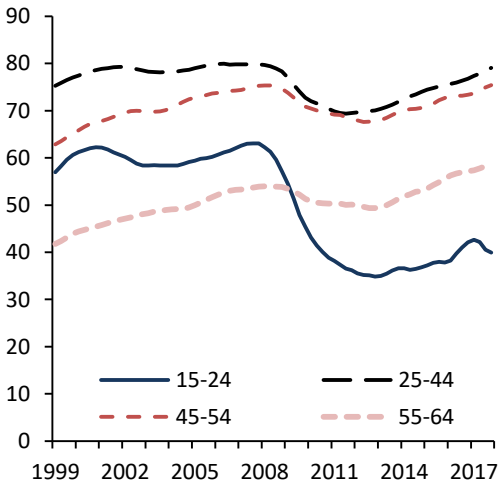
B. Unemployment Rates[2]
Per cent of Labour Force



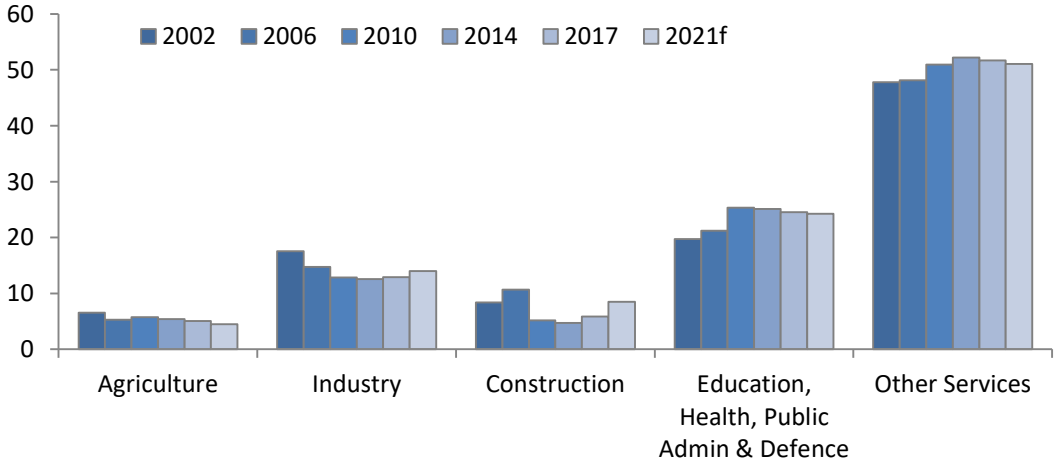
C. Employment Rate (Age 15-64)[3]
Per cent of Labour Force



D. Employment Rates by age[3]
Percentage of Total Employment



E. Sectoral Employment Concentration[4]
Percentage of Total Employment

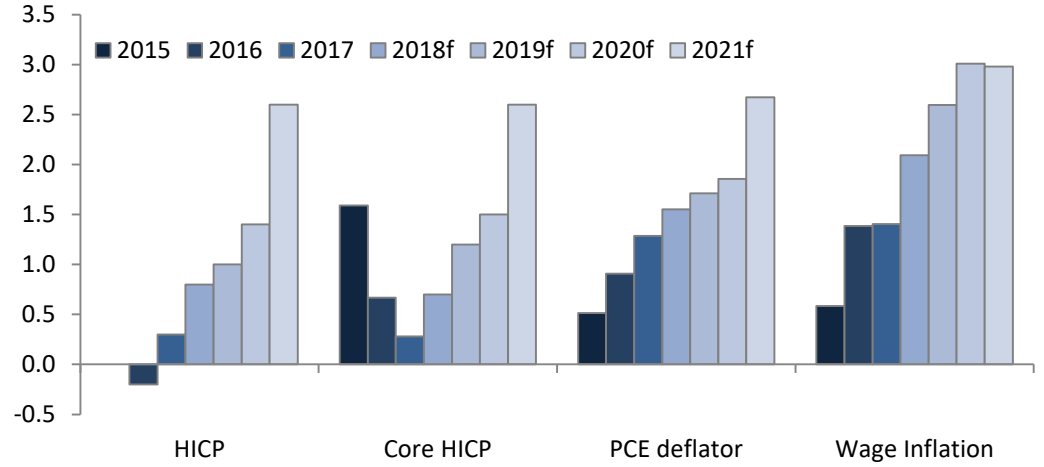


F. Net Migration [4]

Per cent of Labour Force

G. Inflation Measures [5]

Percentage change, year-on-year



[1] Rates show % of vacancies and 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. Employment rates by age grouping for 15-24 years, 25-44 years and 55-64 years are calculated as an average of quarterly employment rates (by five- or ten-year age groups), weighted by annual population estimates by corresponding age group.

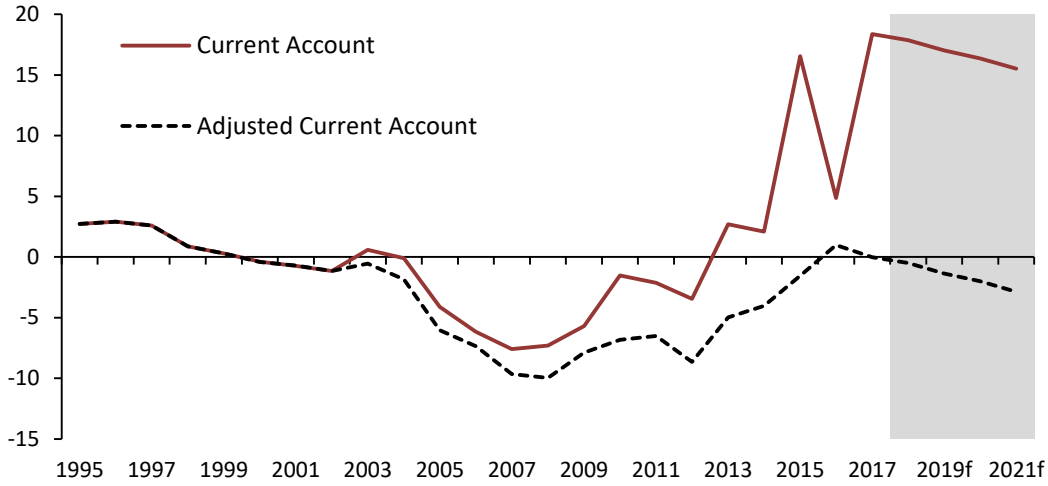
[4] Positive net migration indicates immigration exceeded emigration. Figures E and F include *SPU 2018* forecasts for 2018-2021.

[5] Wage inflation shown is a national accounts measure, based on compensation of employees and annualised employee hours.

Figure AC.2: Indicators of External Balances

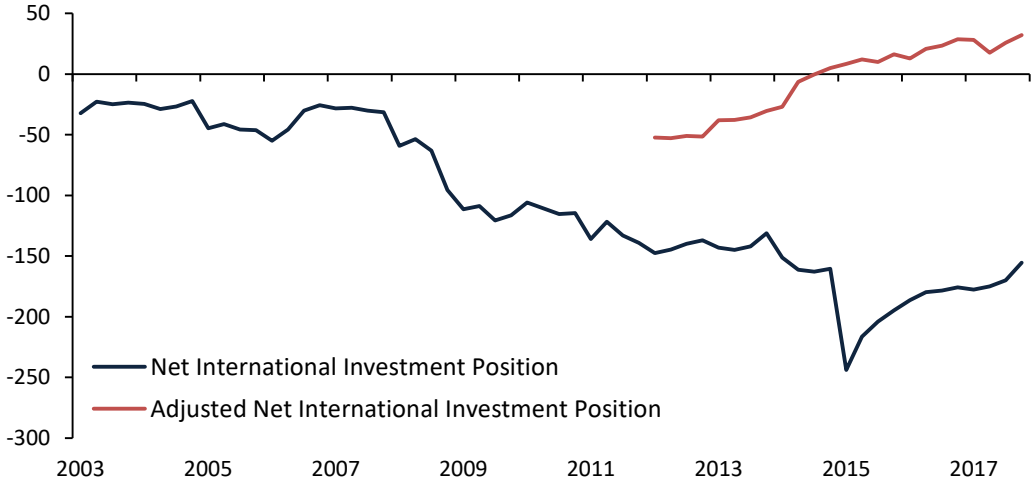
A. Current Account Balance

Per cent of GNI*



B. Net International Investment Position

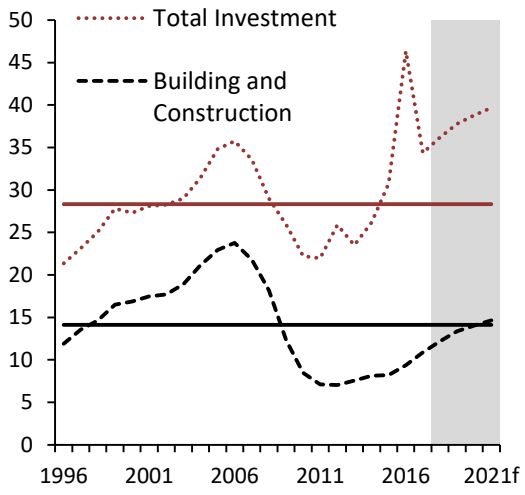
Per cent of GDP



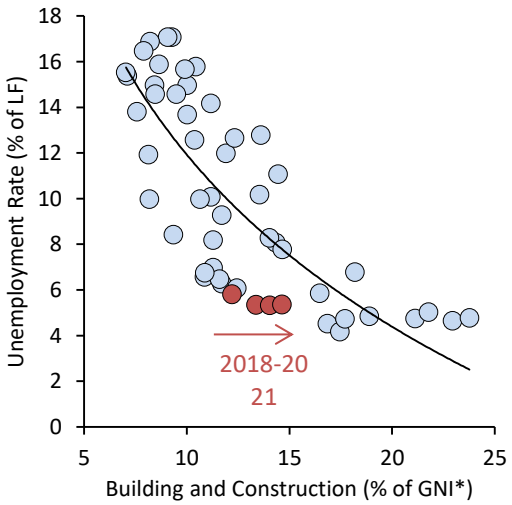
Sources: CSO; Eurostat and internal IFAC calculations.
Note: The adjusted current account balance excludes the estimated impact of redomiciled PLCs, depreciation on research & development related intellectual property (IP) imports, depreciation on aircraft leasing, imports of R&D services by foreign 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

A. Investment
Per cent of GNI*

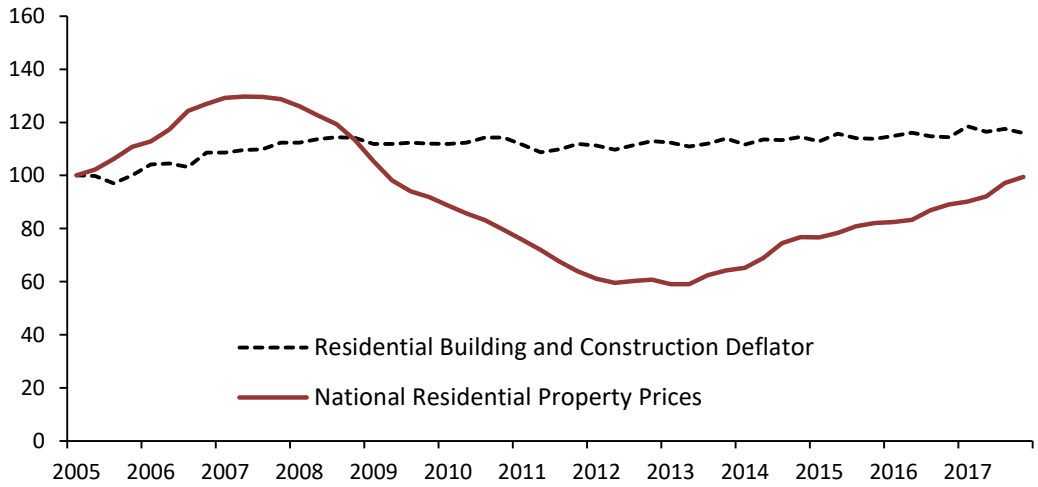


B. Construction Activity and Unemployment



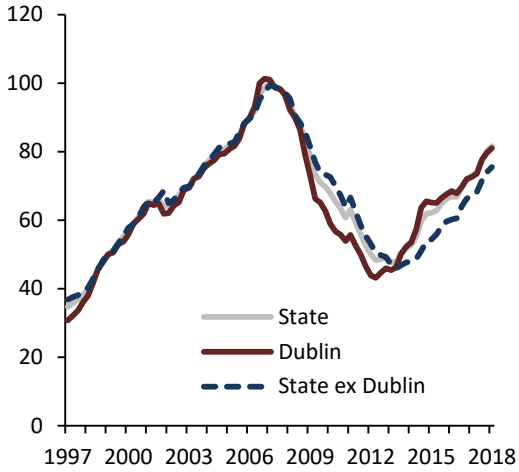
Sources: CSO; AMECO; Department of Finance; internal IFAC calculations.
Notes: Historical averages for investment ratios for 1995–2017 shown as horizontal lines in Panel A. In panel B, forecasts (2018–2021) are shown in red.

C. Irish Residential Property: Prices and Implied Production Costs
Q1 2005 = 100

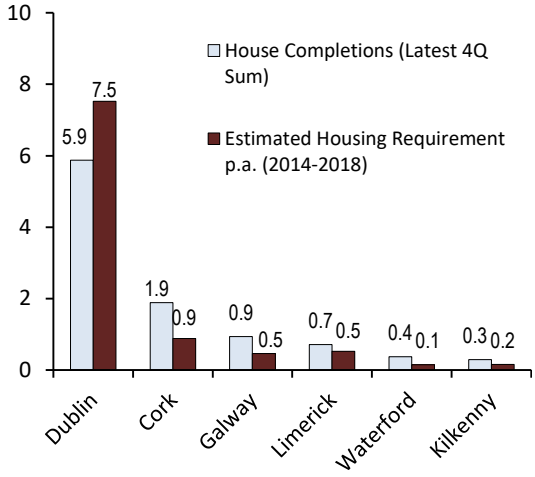


Sources: CSO; and internal IFAC calculations.

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

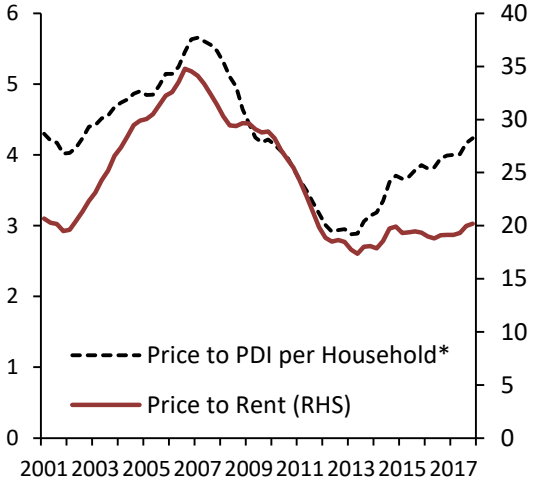


E. Estimated Housing Requirements and Completions
Thousands

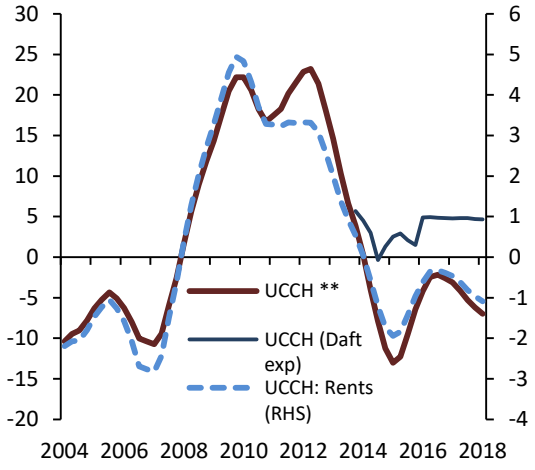


Sources: CSO, ESRI/PTSB, Housing agency estimates and Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.

F. Housing Valuation Ratios
Ratio

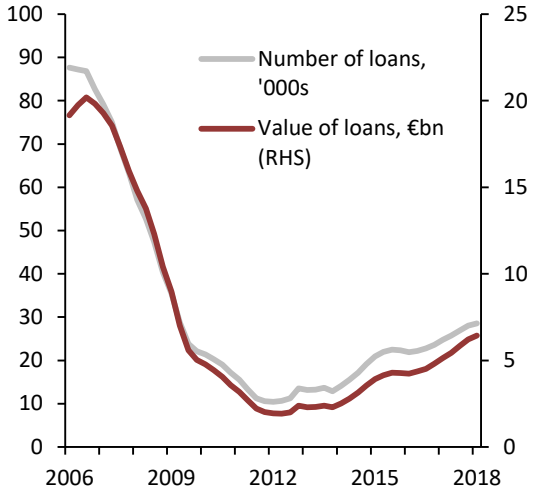


G. User Cost of Capital for Housing (UCCH)

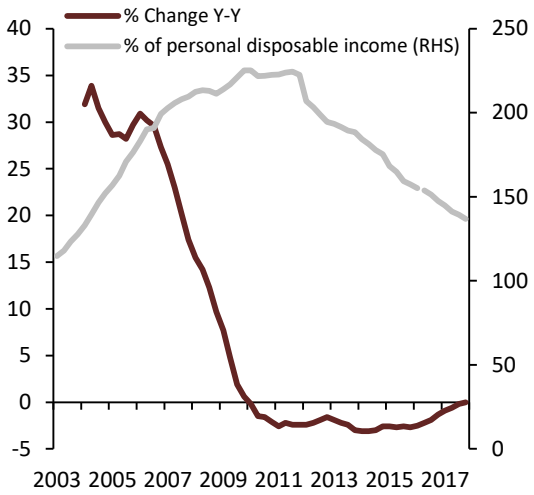


Sources: CSO, *Residential Property Price Index*; ESRI/PTSB *House Price Index*; RTB, *The RTB Rent Index Quarter 4 2017*; Housing agency estimates and Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.

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

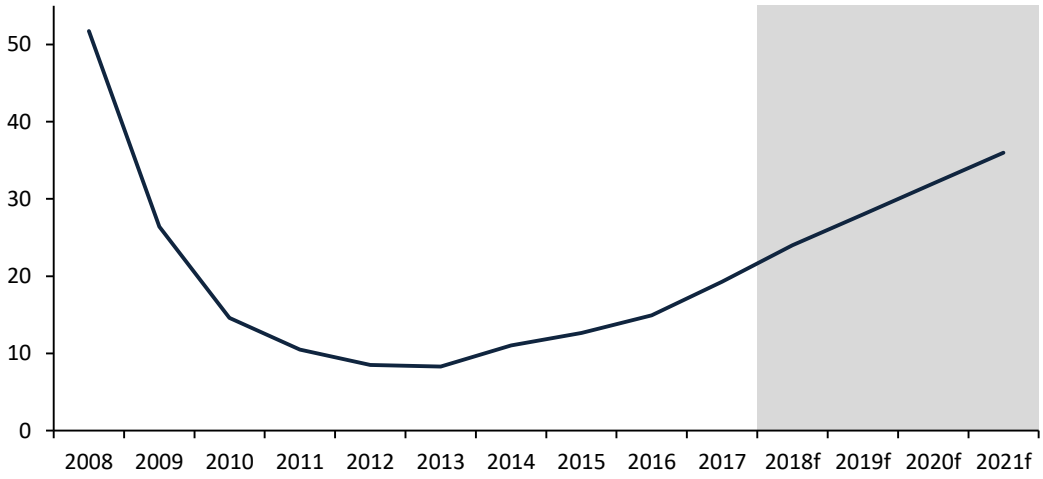


I. Loans to Irish Households for House Purchase



J. Housing Completions

Thousands

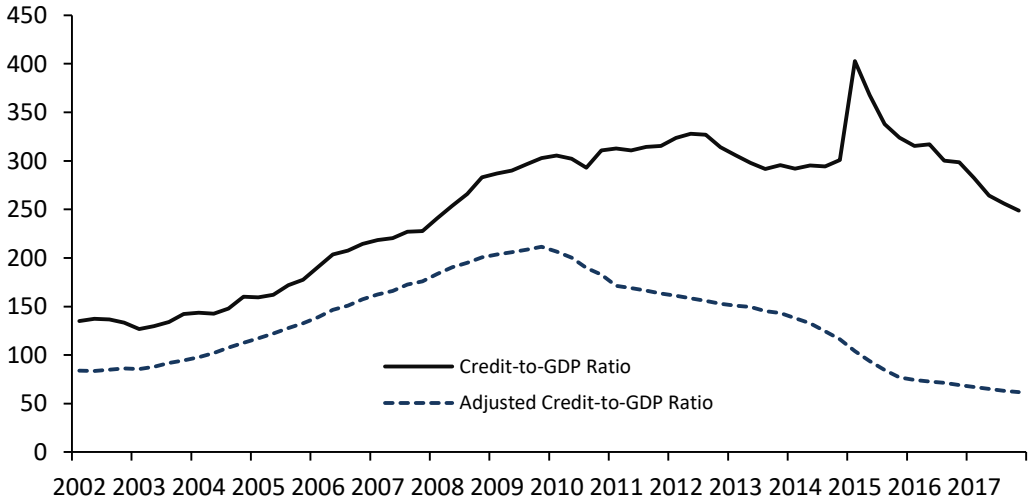


Sources: CSO, ESRI/PTSB, Central Bank of Ireland, IBF Mortgage Market Profile, Department of Housing, Planning, Community and Local Government; and internal IFAC calculations.
Note: Price to disposable income per household corresponds to average house prices divided by moving 4-quarter sum of adjusted personal disposable income per household – households are forecast based on population growth and assuming a constant share of households relative to population from Q1 2016 onwards. 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 exp) 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

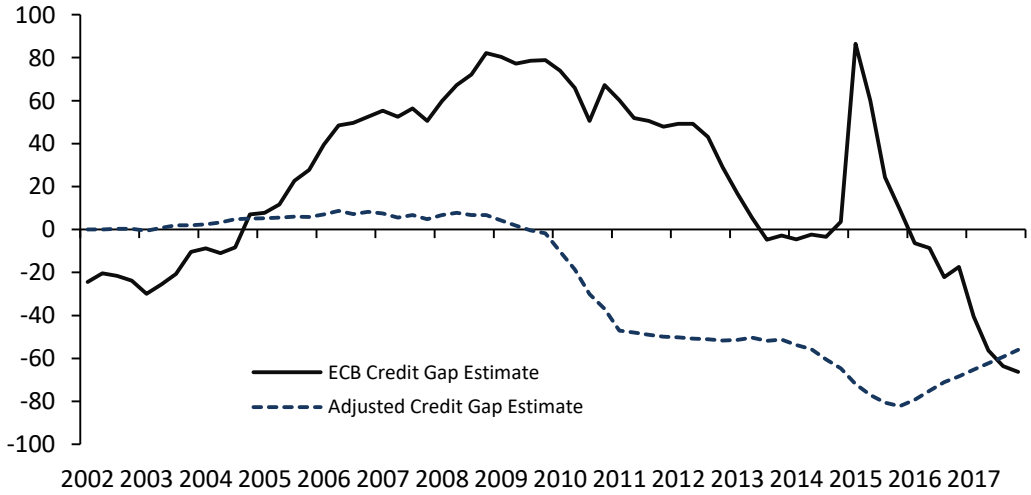
A. Private Sector Credit-to-GDP Ratios

Per cent of GDP



B. Private Sector Credit-to-GDP Gaps

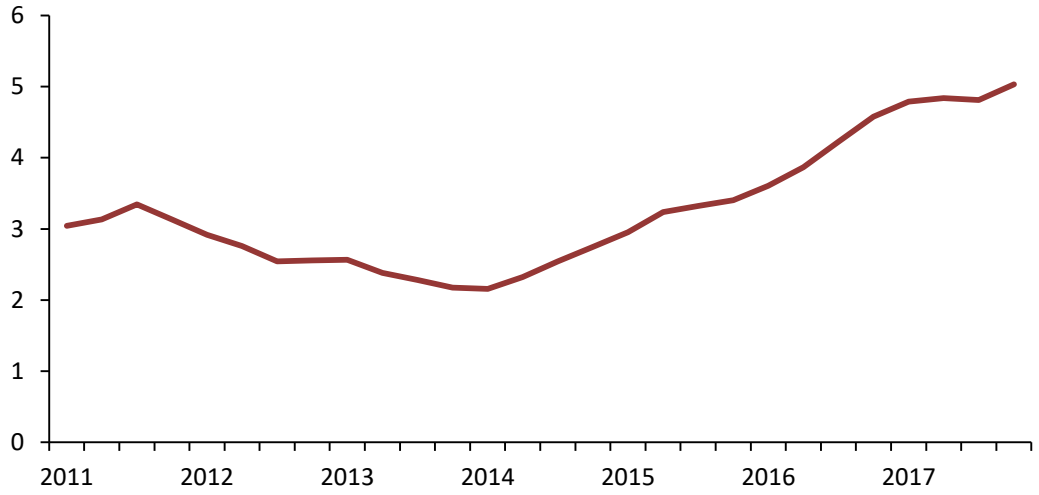
Per cent of GDP



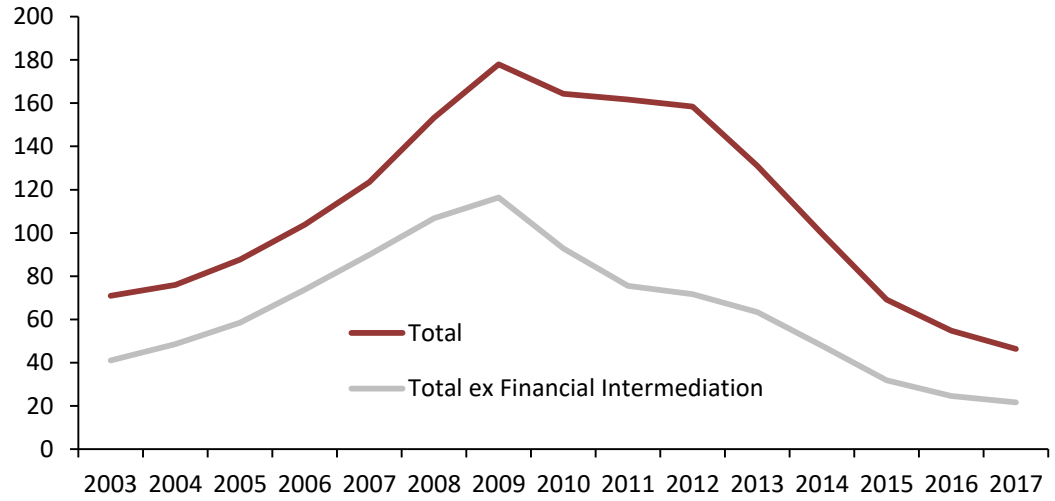
Sources: CSO; Central Bank of Ireland and internal IFAC calculations.

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-Sized Enterprises
€ billion (excluding financial intermediation, four-quarter sum)



D. Credit Advanced to Irish Resident Private-sector Enterprises
Per cent of GNI*

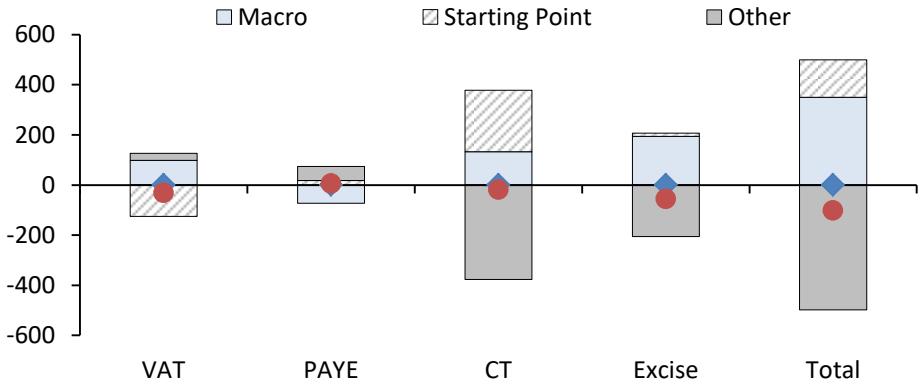


Sources: CSO; Central Bank of Ireland and internal IFAC calculations.

Appendix D: Decomposition of Exchequer Tax Revenue Forecasts

The first part of this Appendix explores the revisions to forecasts of the main tax heads for 2018. It shows how the 2018 forecasts in *SPU 2018* have changed relative to *Budget 2018.* Three categories are identified in this analysis as drivers of these revisions: (i) an update to the 2018 "**macro**" economic outlook relevant for each tax head; (ii) the error arising from an incorrect "**starting point**" estimate of 2017, which biases the 2018 forecast (a positive starting point means that the 2017 outturn was actually higher than expected at budget time); and (iii) an "**other**" source of revision, caused by use of incorrect estimates of any other component of the forecast. It is the residual of the "macro" and "starting point" errors.[82, 83] Appendix Figure D.1 also compares the total revision relative to the performance against the *Budget 2018* profile at end-April 2018.

Appendix Figure D.1: Tax Forecast Revisions for 2018
€ million (*SPU 2018 – Budget 2018*)



Sources: Department of Finance; and internal IFAC calculations.
Note: The chart breaks down the total revision into the macro component, a starting point component and an "other" component. Performance to date shows the tax receipts at end-April 2018 relative to profile. A positive performance to date indicates taxes are higher than what was forecast at *Budget 2018* time. The total revisions solely relate to VAT, PAYE, corporation tax and excise duties.

The second part of this Appendix examines the latest tax revenue forecasts produced by the Department of Finance for the whole projection horizon (2018–2021). In particular, it shows the yearly changes in the forecasts of VAT, corporation tax, excise duties, and the PAYE and USC components of income tax (see Appendix Figure D.2).

[82] For a detailed description of the IFAC's forecast replication model, see Hannon (2014).

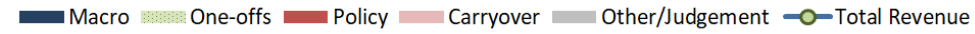
[83] The macro drivers for 2018 used in this exercise are based on the recent *SPU 2018* forecasts, as opposed to those projected at budget time. However, the Department of Finance's tax forecasts for 2018 use the macro drivers that were forecast in *Budget 2018.* The exercise is therefore based on the most up-to-date macroeconomic information for each tax source.

The total annual changes for each tax head are attributed to a number of components: (i) "**macro**" is the part of the forecast driven by the growth in the relevant macro driver (e.g. wage growth and its corresponding elasticity when analysing income tax); (ii) "**one-offs**" refer to non-recurring items that impact on expected tax receipts; (iii) "**policy**" impacts account for the estimated impacts from policy changes in a given year (e.g., discretionary tax cuts); (iv) "**carryover**" effects account for policy impacts carried over from previous years; (v)"**other**" represents potential elements affecting the forecasts (calculated as the difference between IFAC's internal forecasting exercise and that carried out by the Department of Finance), including judgement applied by the Department of Finance.[84, 85]

[84] The generic formula applied by the Department of Finance to forecast revenue is given by:
$\mathrm{Rev_{t+1}} = (\mathrm{Rev_t} - \mathrm{T_t}) * (1 + \mathrm{B_{t+1}} * \mathrm{E_{t+1}}) + \mathrm{T_{t+1}} + \mathrm{M_{t+1}} + \mathrm{M_t} + \mathrm{J_{t+1}}$,
where revenue forecasts ($\mathrm{Rev_{t+1}}$) depend on their lag –stripped of one-off items ($\mathrm{T_t}$)–, one-off items in the next period ($\mathrm{T_{t+1}}$), the macro drivers ($\mathrm{B_{t+1}}$) and their associated elasticity ($\mathrm{E_{t+1}}$), current policy ($\mathrm{M_{t+1}}$) and carryover policy impacts ($\mathrm{M_t}$), and judgement ($\mathrm{J_{t+1}}$). See Hannon, 2014 for a discussion of the approach. Rewriting the formula in terms of annual changes yields: $\Delta\mathrm{Rev_{t+1}} = \mathrm{Rev_t} * \mathrm{B_{t+1}} * \mathrm{E_{t+1}} - \mathrm{T_t} * \mathrm{B_{t+1}} * \mathrm{E_{t+1}} + \Delta\mathrm{T_{t+1}} + \mathrm{M_{t+1}} + \mathrm{M_t} + \mathrm{J_{t+1}}$. In this way, yearly revenue changes for each tax head are attributed to the addition of: (i) the macro driver, which covers the parts of the formula affected by B_{t+1}; (ii) changes in one-off items, as shown in ΔT_{t+1}; (iii) current and previous policy changes ($M_{t+1}$and M_t, respectively); and (iv) judgement, as covered in the component J_{t+1}.

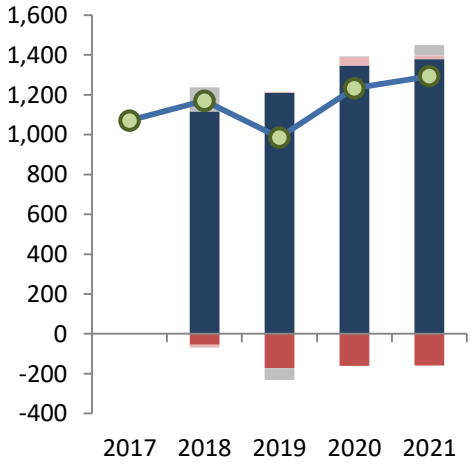
[85] The macro drivers for 2018 used in this exercise, as in the previous part of the Appendix, are based on the recent *SPU 2018* forecasts, as opposed to those projected at budget time. However, the Department of Finance's tax forecasts for 2018 use the macro drivers that were forecast in *Budget 2018.* The exercise is therefore based on the most up-to-date macroeconomic information for each tax source. From t+1 onwards (2019–2021), the most recent SPU macroeconomic forecasts are used both by the Department of Finance and in this exercise.

Appendix Figure D.2: Tax Revenue Forecast Growth per Indicator

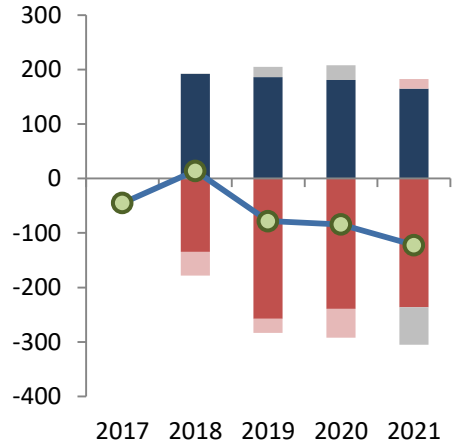


A. PAYE

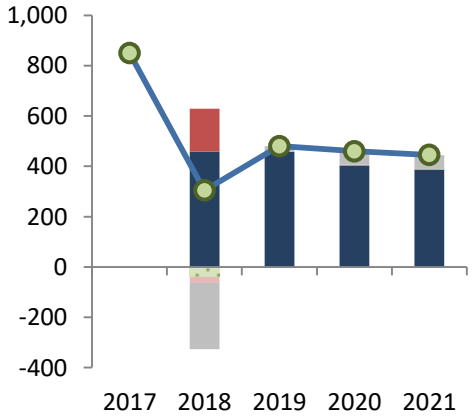
€ million, year-on-year change



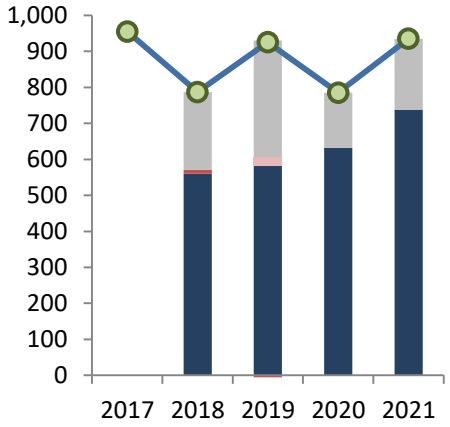
B. USC



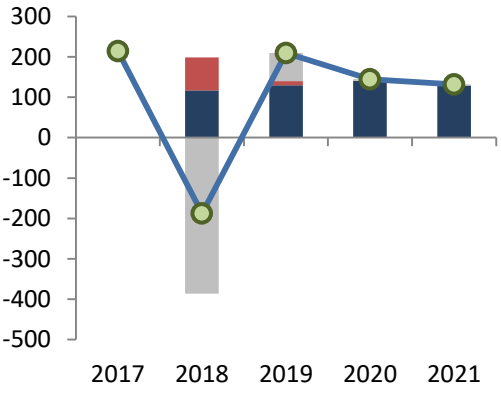
C. Corporation Tax



D. VAT



E. Excise Duties



Sources: Department of Finance; and internal IFAC calculations.

Glossary[86]

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.

[86] 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*.

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Underlying Budget Balance: The general government budget balance with one-off items removed. The one-offs are those assessed by the Council as being applicable.

Underlying Current Account Balance: The balance of payments current account balance less the impact of re-domiciled PLCs; depreciation of intellectual property; and leased aircraft; research and development imports; net purchases of intellectual property products; and investment into intellectual property assets and aircraft leasing.

Underlying Domestic Demand: An aggregate measure comprising consumer spending plus investment plus government consumption, and excludes investment in intangibles and aircraft, both of which have high import content.

Underlying Net Exports: A measure comprising the difference between exports and imports, excluding those related to intangibles and aircraft, both of which have high import content.

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