

### 3. ASSESSMENT OF BUDGETARY FORECASTS

#### KEY MESSAGES

- In a welcome development, *SPU 2015* provides in advance some detail on the likely policy changes in *Budget 2016*. It assumes a €1.2 billion budget package split evenly between tax cuts and spending increases.
- The deficit for 2015 is now forecast to fall to 2.3 per cent. Given the strong performance of tax revenues in the first four months of 2015, and spending that is marginally below profile, this appears achievable.
- Expenditure forecasts after 2016 explicitly provide for an additional €0.3 billion each year to account for demographic pressures but include no further policy measures. Published tax revenue forecasts assume no policy changes after 2016. Given the clear indications that future policy changes are likely to include both tax cuts and possible increases to expenditure, as well as the stated Government intention to target minimum compliance with the fiscal rules, these forecasts do not provide a well-specified plan for the likely budgetary position over the coming years.
- The medium-term budget forecasts in *SPU 2015* imply a fall in the ratio of non-interest government spending to GDP of over 5 percentage points. An illustrative scenario for government expenditure indicates that such a reduction in spending would be extremely difficult to achieve while maintaining existing public services and accounting for known demographic and other cost pressures.
- Given these shortcomings, the deficit projections in *SPU 2015* do not provide a useful picture of the fiscal position after 2016 and fall short of the requirements envisaged in the Budgetary Frameworks Directive. While it is not expected that specific revenue and expenditure measures would be detailed over the medium term, full acknowledgement of spending pressures, the overall value of intended revenue measures and, consequently, a deficit path should play a central role in medium term projections.

### 3.1 INTRODUCTION

This chapter assesses the latest set of budgetary forecasts produced by the Department of Finance. Section 3.2 reviews the accuracy of Department of Finance forecasts for 2014. Section 3.3 assesses the forecasts for revenue and expenditure contained in *SPU 2015* and, in particular identifies concerns related to the medium-term expenditure forecasts. Section 3.4 examines the sensitivity of the main budgetary aggregates to changes in the economic outlook as well as providing a broader assessment of risks.

### 3.2 DEPARTMENT OF FINANCE BUDGETARY PROJECTIONS FOR 2014

Table 3.1 shows how the Department of Finance's budgetary projections for 2014 have evolved over time and compares them to the outturn. The General Government deficit of 4.1 per cent of GDP is lower than forecast in *Budget 2014* and *SPU 2014* but higher than that expected in *Budget 2015*.

Revenues in 2014 strongly outperformed early forecasts and even exceeded the revised forecasts in *Budget 2015* published in October 2014 as both taxes and other sources of revenue (including Central Bank surplus income and dividends from semi-state bodies) exceeded expectations.

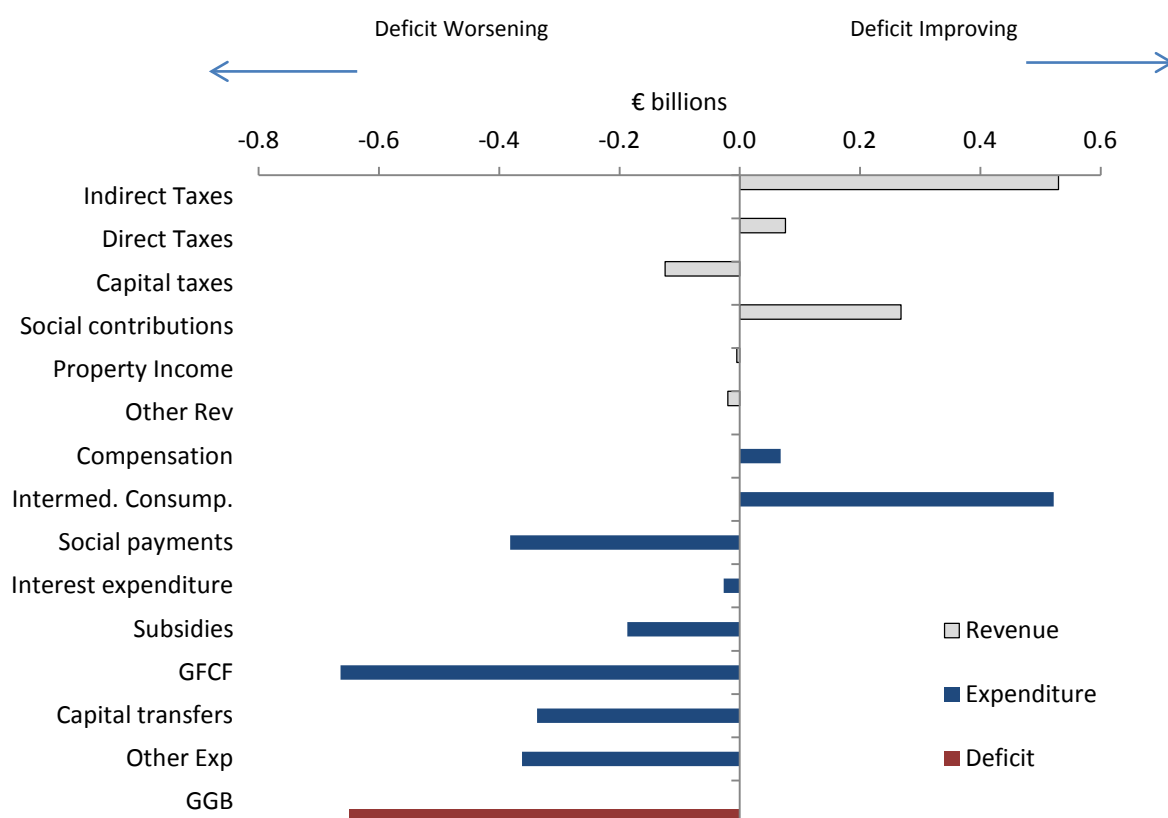
TABLE 3.1: DEPARTMENT OF FINANCE PROJECTIONS FOR 2014 (ADJUSTED FOR ESA 2010)

	<i>Budget 2014</i>	<i>SPU 2014</i>	<i>Budget 2015</i>	<i>Outturn</i>
€ Billions	Oct-13	Apr-14	Oct-14	Apr-15
<b>General Government Balance</b>	<b>-8.2</b>	<b>-8.0</b>	<b>-6.9</b>	<b>-7.6</b>
<b>General Government Balance, % of GDP</b>	<b>-4.4</b>	<b>-4.3</b>	<b>-3.7</b>	<b>-4.1</b>
<i>Primary Balance, % of GDP</i>	0.0	0.0	0.3	-0.1
<b>Revenue</b>	61.9	62.0	64.0	64.7
<i>Tax</i>	44.6	44.7	45.9	46.3
<i>Social Contributions</i>	10.3	10.1	10.6	10.8
<i>Other</i>	7.0	7.1	7.6	7.5
<b>Expenditure</b>	70.1	70	70.9	72.3
<i>Government Services</i>	26.7	26.6	27.9	27.3
<i>Social Transfers</i>	28.2	28.2	28.1	28.5
<i>Interest</i>	8.2	8	7.5	7.5
<i>Investment</i>	2.6	2.7	2.8	3.5
<i>Other</i>	4.4	4.4	4.6	5.5
<b>Primary Expenditure</b>	<b>61.9</b>	<b>62</b>	<b>63.4</b>	<b>64.8</b>

Source: Department of Finance; internal IFAC calculations

The revenue outperformance was more than offset by higher expenditure, with original Budget 2014 expenditure plans exceeded by €2.2 billion (Figure 3.1). As late as October 2014, the Government was only expecting to overspend by €0.9 billion. Much of this is due to technical factors such as the inclusion of Irish Water and recognising the Waterford Crystal pension liability. Comparing *Budget 2015* forecasts for the year 2014 with the eventual revenue and expenditure outturns, it can be seen that expenditure was higher across most categories (exceptions are compensation of employees and intermediate consumption) and was only partially offset by strong taxes, particularly direct taxes including VAT and excise receipts. Gross Fixed Capital Formation (investment) in particular was significantly different from *Budget 2015* expectations with the eventual outturn being some €0.7 billion, or 35 per cent, higher than forecast.<sup>1</sup> Box D shows the extent to which the overspend is explained by the preliminary classification of Irish Water as part of general government (Box D).

FIGURE 3.1: BUDGET 2015 - OUTTURN



Source: Department of Finance.

Note: Bars to the left denote components that were worse for the deficit relative to *Budget 2015* forecast, bars to the right denote components that were better for the deficit relative to *Budget 2015* forecast.

<sup>1</sup> Gross fixed capital formation is impacted by statistical treatment of the sale of the National Lottery licence.

#### BOX D: STATISTICAL TREATMENT OF IRISH WATER

With effect from 1 January 2014, Irish Water is responsible for public water services in Ireland. Irish Water has been provisionally classified within general government and is also included in general government for the purposes of the *SPU* projections. However, the CSO have proposed that Irish Water be classified outside of general government and Eurostat's final adjudication will be reflected at the time of *Budget 2016*.<sup>2</sup> This Box describes the impact on general government resulting from the preliminary classification.

Table D.1 shows the breakdown of the net General Government Balance (GGB) impact arising from the preliminary classification.<sup>3</sup> It is important to note that Local Government Fund (LGF) and Exchequer support in the form of the government operational subvention are incurred regardless of the classification decision. These are deducted from total expenditure to show the overall net deficit impact of Irish Water. The impact is expected to raise the deficit by 0.3 per cent of GDP for 2015 and by an average of 0.2 per cent of GDP over the period 2016-2020.<sup>4</sup> The impact also raises general government debt, with the impact rising from 0.3 per cent of GDP in 2015 to almost 1 per cent by 2020.

TABLE D.1: BREAKDOWN OF IRISH WATER IMPACT ON GENERAL GOVERNMENT

€ billion unless stated	2014	2015	2016	2017	2018	2019	2020
Total Revenue	0.25	0.50	0.51	-	-	-	-
...of which Domestic Charges	0.00	0.27	0.27	-	-	-	-
...of which Non-Domestic	0.25	0.23	0.24	-	-	-	-
Support from LGF/Exchequer *	0.52	0.40	0.48	-	-	-	-
Total Expenditure	1.10	1.48	1.39	-	-	-	-
...of which Capital	0.32	0.68	0.60	-	-	-	-
...of which Operational (incl. interest)	0.78	0.80	0.79	-	-	-	-
Net GGB impact	-0.34	-0.58	-0.39	-0.26	-0.29	-0.45	-0.37
Net GGB impact (% GDP)	-0.18	-0.29	-0.19	-0.12	-0.13	-0.19	-0.15
Net GG debt impact (% GDP)**	0.08	0.29	0.47	0.57	0.67	0.83	0.95

Sources: *SPU 2015*; Department of Environment.

\* This includes consolidation of transactions between Irish Water and Local Authorities.

\*\* Two-year bridging facility provided by National Pensions Reserve Fund in 2013 (extended in 2014) has no impact.

As a regulated utility, Irish Water's operating and capital cost plans are reviewed by the Commission for Energy Regulation. The regulator has set a maximum "allowed revenue" to end-2016, which Irish Water can recover from customers' bills (domestic and non-domestic), taking account of the Government subvention. The first customers' bills started issuing in April 2015 and charges for households have been capped until end-2018. This results in less revenues from domestic customers than originally envisaged and no revenue in 2014. In each of 2015 and 2016, Irish Water expects billed income from domestic and non-domestic customers to total some €0.5 billion. On the expenditure side, the regulator has also set efficiency targets to end-2016 on Irish Water's operating and capital costs.<sup>5</sup> Current plans envisage €0.68 billion of capital expenditure in 2015 and operational expenditure (including interest costs) of €0.8 billion, with total expenditure

<sup>2</sup> If the final Eurostat decision on the classification of Irish Water places it outside general government, the Government has noted that it will consider how best to make use of any improvement in the fiscal forecasts that would result.

<sup>3</sup> A breakdown beyond 2016 is not available as 2017-2020 forecasts are subject to future budgetary/regulatory reviews.

<sup>4</sup> The impact reflects: Total Revenue (€0.5bn) + LGF/Exchequer Support (€0.4bn) - Total Expenditure (€1.48bn).

<sup>5</sup> For example, these require Irish Water to reduce their operating costs by 7 per cent annually to end-2016 or just over €50 million per annum.

expected to fall in 2016 from €1.48 billion to €1.39 billion, largely on account of lower capital expenditure.

### 3.3 ASSESSMENT OF SPU 2015 FORECASTS

TABLE 3.2: SPU 2015 BUDGETARY FORECASTS

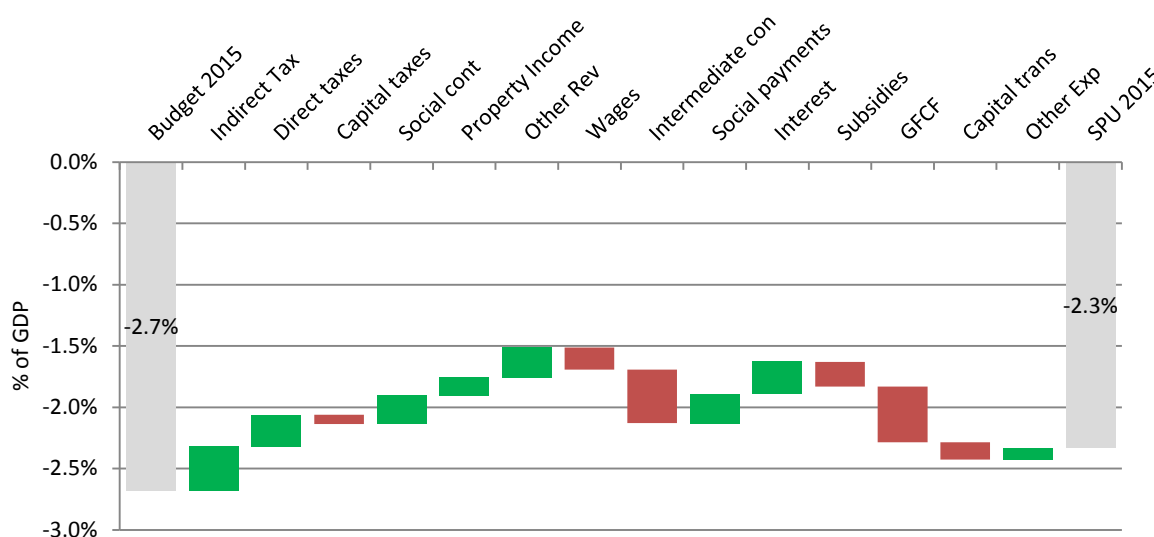
	2015	2016	2017	2018	2019	2020
<b>Main Aggregates as % of GDP</b>						
General Government Balance	-2.3	-1.7	-0.9	-0.1	0.7	1.7
Primary Balance	1.1	1.5	2.2	2.9	3.6	4.3
Structural Balance	-2.6	-2.3	-1.3	-0.3	0.8	2.1
General Government Debt	105.0	100.3	97.8	93.6	89.4	84.7
Nominal GDP (€ billions)	198.3	208.9	217.8	227.3	236.9	246.8
Nominal GDP Growth	6.9	5.4	4.2	4.4	4.2	4.2
<b>Projected Levels of Government Revenues and Expenditure (€ billions)</b>						
Total revenue	68.0	69.3	71.1	73.2	75.5	77.9
Taxes on production and imports	22.2	23.1	23.8	24.4	25.1	25.8
Current taxes on income, wealth	25.9	26.9	27.7	29.0	30.3	31.6
Capital taxes	0.4	0.4	0.4	0.4	0.4	0.4
Social contributions	11.3	11.4	11.7	12.1	12.5	13.0
Property Income	2.8	2.2	2.0	1.9	1.8	1.7
Other Rev	5.4	5.4	5.4	5.4	5.4	5.4
Total Expenditure	72.6	72.9	73.1	73.5	73.9	73.8
Compensation of employees	19.2	19.5	19.6	19.7	19.8	19.9
Intermediate consumption	9.6	9.5	9.6	9.7	9.7	9.7
Social payments	27.5	27.5	27.6	27.7	27.8	27.9
Interest expenditure	6.9	6.8	6.9	7.0	6.9	6.7
Subsidies	2.1	2.1	2.1	2.1	2.1	2.1
GFCF	3.7	3.7	3.6	3.6	3.8	3.7
Capital transfers	1.2	1.3	1.2	1.1	1.1	1.1
Other Exp	2.5	2.5	2.5	2.6	2.7	2.7
Primary Expenditure	65.7	66.1	66.2	66.6	67.0	67.1

Source: Department of Finance.

### 3.3.1 FORECASTS FOR 2015

Figure 3.2 shows how *SPU 2015* has revised the *Budget 2015* forecast for the general government deficit for 2015 from 2.7 per cent to 2.3 per cent of GDP. The provisional inclusion of Irish Water in general government has led to the upward revision of spending on intermediate consumption and gross fixed capital formation. The total Irish Water impact on the deficit in 2015 is expected to be €580 million or 0.3 per cent of GDP (see Box D). Excluding the impact of Irish Water, the forecast for the deficit in 2015 would now be 2 per cent. A final decision on the statistical treatment of Irish Water will be made in the October release of the Government Finance Statistics.

FIGURE 3.2: REVISION TO 2015 DEFICIT: *SPU 2015* v. *BUDGET 2015*



Source: Department of Finance.

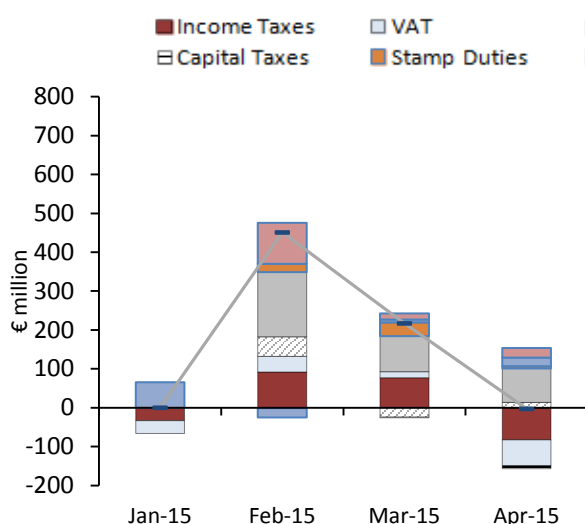
Note: Floating bars show the sources of revision to the 2015 deficit, a green bar represents a positive factor (deficit reducing), a red bar represents a negative factor (deficit increasing).

Despite the effect from the statistical treatment of Irish Water, the deficit forecast has improved due to a number of factors, including lower interest expenditure (€520 million). Expenditure on social payments has also been revised down by €470 million reflecting improving unemployment numbers. Other revenue has also been revised up, reflecting the fact that once again the Central Bank surplus income is expected to be higher than profiled. Some of these gains are offset by projected increases to departmental spending which have mainly been allocated to the government wage bill.

One of the biggest contributors to revised forecasts since *Budget 2015* has been taxes. A €1.1 billion upward revision relative to *Budget 2015* comes amid strong Exchequer Returns, with taxes and PRSI for the first four months ahead of end-April 2015 profiles by some €665 million (4.4 per cent, Figure 3.3). Were this performance to continue throughout the rest of the year, the end-year overperformance could be larger than the revised figures, resulting in (all else equal) a deficit that

could fall below 2 per cent. Caution is advised at this early stage, however. In particular, the tax take for the month of April 2015 was below profile.<sup>6</sup> Furthermore, the overperformance in the first four months of 2015 is dominated by corporation taxes, whereas the three largest tax heads (income tax, VAT and excise) are all close to profile.<sup>7</sup>

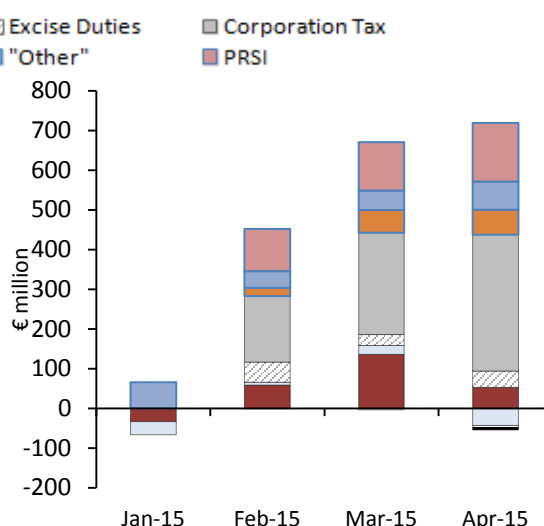
FIGURE 3.3A: TAXES AND PRSI  
RELATIVE TO MONTHLY PROFILE



Source: Department of Finance.

Note: Other taxes include customs and property tax.

FIGURE 3.3B: TAXES AND PRSI  
RELATIVE TO CUMULATIVE PROFILE



Source: Department of Finance.

Note: Other taxes include customs and property tax.

On the spending side, gross voted current expenditure and interest payments are both below profile. Taken together, the positive outturn for tax revenues and slightly lower than profiled spending led to a year-to-date Exchequer balance in April 2015 that is €889 million better than profile.<sup>8</sup>

#### REVENUE REVISIONS: *BUDGET 2015 TO SPU 2015*

To understand why taxes are coming in ahead of profile in the year to date, leading to upward revisions in *SPU 2015*, it is useful to analyse what has changed since the *Budget 2015* tax profiles were published in October 2014.

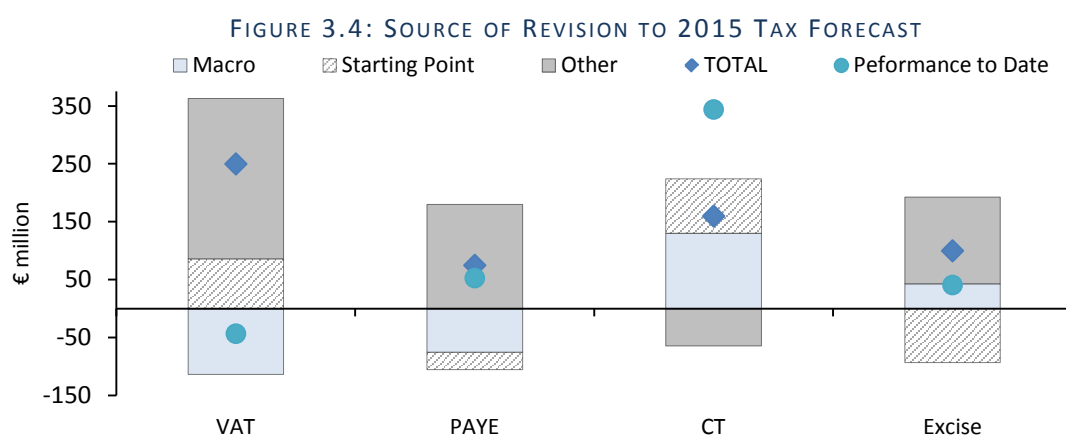
<sup>6</sup> Department of Finance note that an underperformance in income tax in April is largely due to lower than expected DIRT receipts due to lower interest rates.

<sup>7</sup> Department of Finance note that €120 million of corporation tax receipts in March were of an unexpected and one-off nature.

<sup>8</sup> Flows not affecting General Government Balance are excluded.

Figure 3.4 shows the revision to the four largest tax heads from *Budget 2015* to *SPU 2015*. It breaks down the source of that revision into (i) an update to the economic outlook for 2015 (“macro”), (ii) confirmation of the final tax take for 2014 (“starting point”), and (iii) an “other” source of revision, which captures miscellaneous factors and Department of Finance judgement. Figure 3.4 also compares the total revision relative to the performance against the *Budget 2015* profile at end-April.

The main revisions to the tax forecasts since *Budget 2015* have been to corporation tax and VAT. For corporation tax, the outlook for profits in 2015 in the SPU is viewed to have improved and the starting point was confirmed to be higher than thought at Budget time.<sup>9</sup> However, the performance of corporation tax to date is much higher than the revision to the full-year forecast; this would suggest that the Department of Finance are expecting the performance for the rest of the year to be below profile.



Source: Department of Finance, CSO and internal IFAC calculations.

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

VAT stands out as the tax head that, despite currently underperforming relative to profile, is subject to the largest upward revision since *Budget 2015*. The downward revision to the forecast for personal consumption expenditure (PCE), which is the macroeconomic driver for VAT, is partly offset by the starting point being higher. The bulk of the revision is, therefore, a result of other factors. This other category largely reflects a view that VAT is likely to outperform relative to PCE. The previous *FAR* noted the unusually strong growth in VAT relative to PCE. A possible explanation is that, as PCE begins to grow again, consumers return to buying more discretionary items, such as

<sup>9</sup> Profits are proxied by Gross Operating Surplus, which is defined as total gross value added minus compensation of employees.



cars, which attract a higher rate of VAT than necessities. If this is the case, VAT may temporarily become more sensitive to consumer spending than it has been in the past.

### 3.3.2 FORECASTS FOR 2016-2020

Under the Budgetary Frameworks Directive, EU member states were to put in place a Medium-Term Budgetary Framework (MTBF). Under the framework, documents such as *SPU 2015* would contain forecasts for the major revenue and expenditure items on a no-policy change basis. These would be accompanied by a breakdown of the kind of policies it is anticipated would be required to meet the medium-term budgetary targets for each component.<sup>10</sup> The projections for expenditure in *SPU 2015* fall short of meeting the requirements of a medium-term plan as envisaged in the Directive. The revenue forecasts in *SPU 2015* assume certain policy changes for 2016 but none thereafter. This is despite the fact that the *Spring Economic Statement* signalled that the income tax cuts in *Budget 2015* were the start of a multi-year programme of income tax reform. *SPU 2015* describes the expenditure forecasts as ‘no-policy change’, however, as discussed below, it is not clear what precisely this implies and there is no reconciliation between this ‘no-policy change’ scenario and what government expenditure would be over the medium term taking account of budget and other policy measures.

Given these shortcomings, the deficit projections in *SPU 2015* do not provide a useful picture of the fiscal position after 2016. While it is not expected that specific revenue and expenditure measures would be detailed over the medium term, full acknowledgement of spending pressures, revenue targets and, consequently, a deficit path should play a central role in medium term projections.

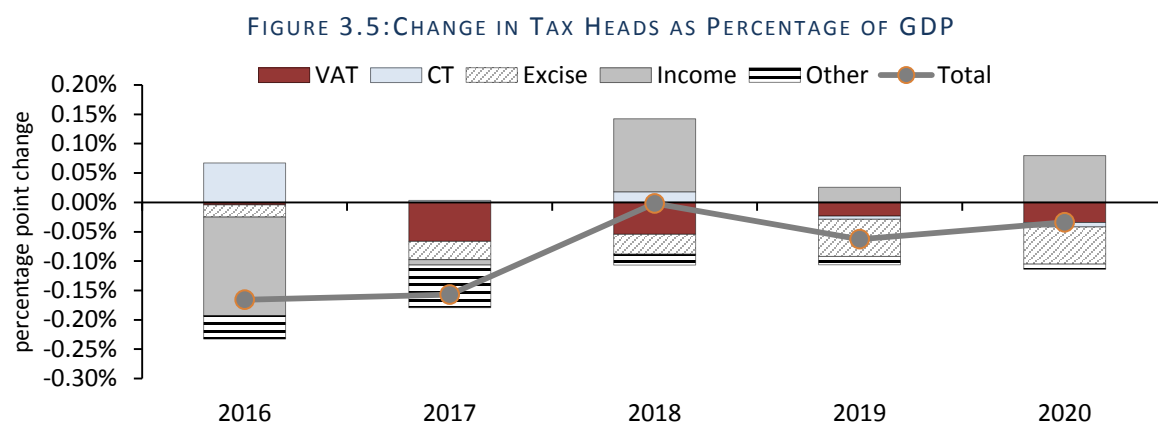
#### REVENUE

Revenue and, in particular, taxes have been revised up since Budget 2015, reflecting both the large revision to the 2015 forecast on foot of strong Exchequer Returns in early 2015 and the improved economic outlook. However, it is notable that in 2017 and 2018, taxes on income and wealth have been revised down relative to *Budget 2015*. This is because *SPU 2015* forecasts are based on a new methodological approach of assuming that income tax bands are indexed to growth in compensation of employees. This is the first time that such an assumption has been employed and reflects the idea that when wages are growing, the non-indexation of income tax bands effectively raises additional revenue by increasing the tax burden for given real incomes.

---

<sup>10</sup> In particular, the European Commission’s *Guidelines on the format and content of Stability and Convergence Programmes* (EC, 2012) indicates that “Each Member State should appropriately define a scenario at unchanged policies and make public the involved assumptions, methodologies and relevant parameters.” Furthermore, “The programmes should describe the budgetary and other economic policy measures being taken, envisaged or assumed to achieve the objectives of the programme, and, in the case of the main budgetary measures, an assessment of their quantitative effects on the general government balance.”

The forecasts for tax revenue beyond 2016 do not include any policy measures such as further reductions in income tax or the Universal Social Charge (USC). Even without cuts to tax rates, revenues in *SPU 2015* are forecast to fall as a percentage of GDP. While taxes generally grow in line with GDP, they are actually forecast to fall from 24.4 per cent of GDP in 2015 to 23.8 per cent in 2017.<sup>11</sup> This is because some of the main tax revenue drivers, particularly consumption, are not expected to grow as fast as overall GDP.



Source: Department of Finance

Note: Other taxes relate to stamp duty, capital gains tax, capital acquisitions tax, customs and local property tax.

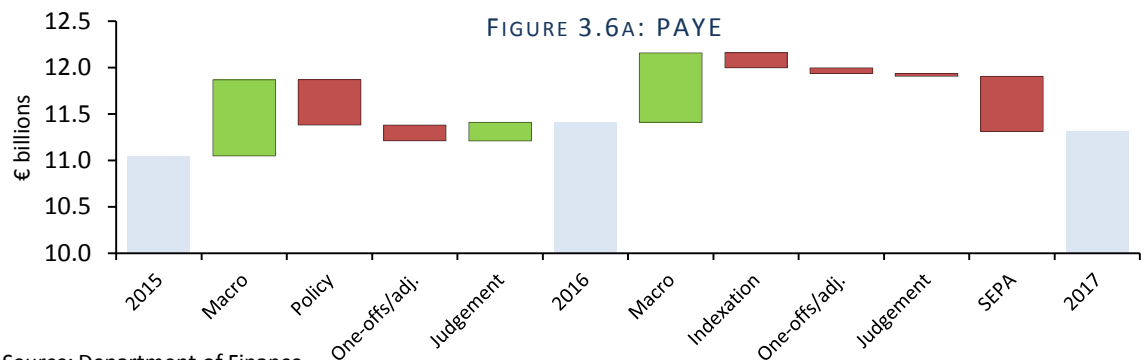
Figure 3.5 shows how the total change in taxes as a percentage of GDP is broken down between tax heads. The big four taxes of VAT, corporation tax (CT), excise and income tax accounted for 92 per cent of total taxes in 2014. During the years 2016-2020 there is a gradual decline in taxes as a percentage of GDP. A more detailed decomposition of the sources of change over these years, shown below, suggests that the expected growth in the big four tax heads is in line with the historical relationship between them and the performance of their economic drivers. The fall as a percentage of GDP is caused by a divergence between the performance of these individual drivers and nominal GDP. In particular, nominal consumption is forecast to grow 1.1 percentage points slower than nominal GDP from 2016-2020. This leads to VAT and Excise growing more slowly than GDP over the forecast horizon.

Figure 3.6 (A-D) shows how the forecasts for taxes set out in *SPU 2015* are expected to evolve from the 2015 outturn to 2017. In each case, the macro bars show how much of the change is due to growth in that tax head's most important economic driver. The Department of Finance forecasts assume that the relationship between the tax head and the macro driver remains constant over time. This may not always be the case and is a potential source of error. In all cases the Department of Finance have used judgement to adjust the forecast upwards in 2016. This reflects a belief that

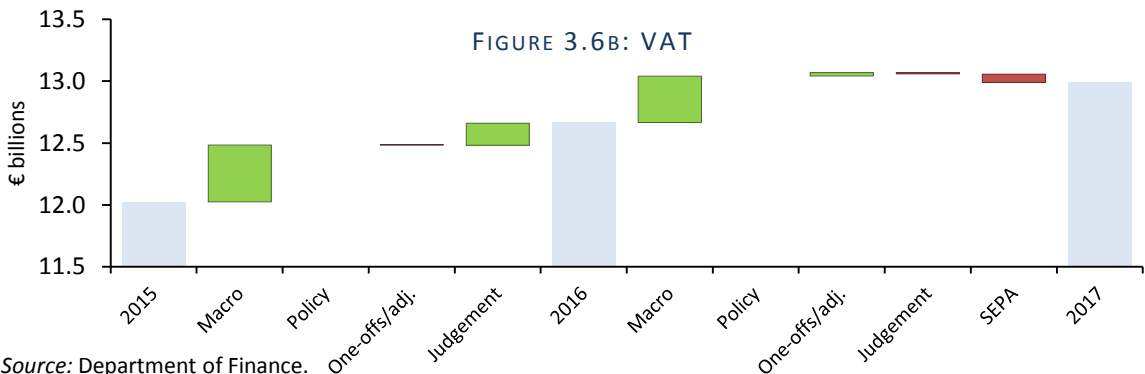
<sup>11</sup> This is despite the fact that *SPU 2015* notes that taxes have been growing faster than GDP in recent years.

the forecast based purely on the historical relationship with a tax head’s macro driver may be underestimating the likely outturn. For example, as noted earlier, recent outturns for VAT have been significantly higher than would be predicted based solely on the forecasting formula. The use of discretion is, therefore, helping to correct the forecasting formula and in 2016 leads to taxes as a percentage of GDP to be 0.3 percentage points higher than they otherwise would be.

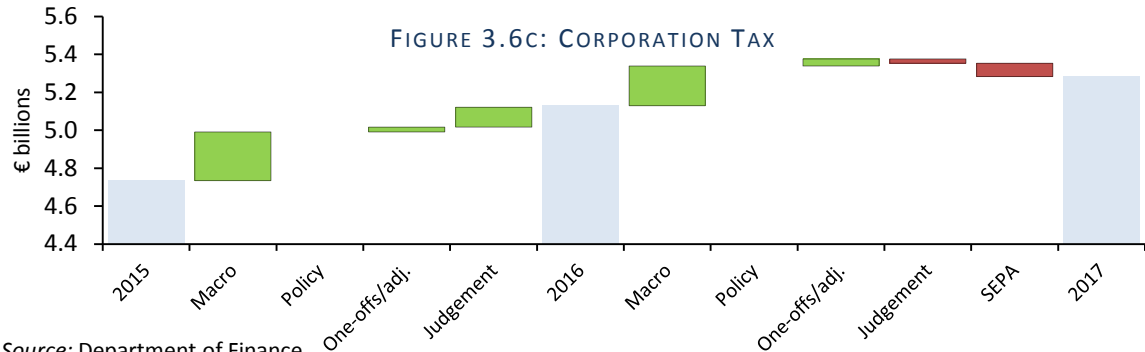
FIGURE 3.6 A-D: SPU 2015 TAX FORECASTS



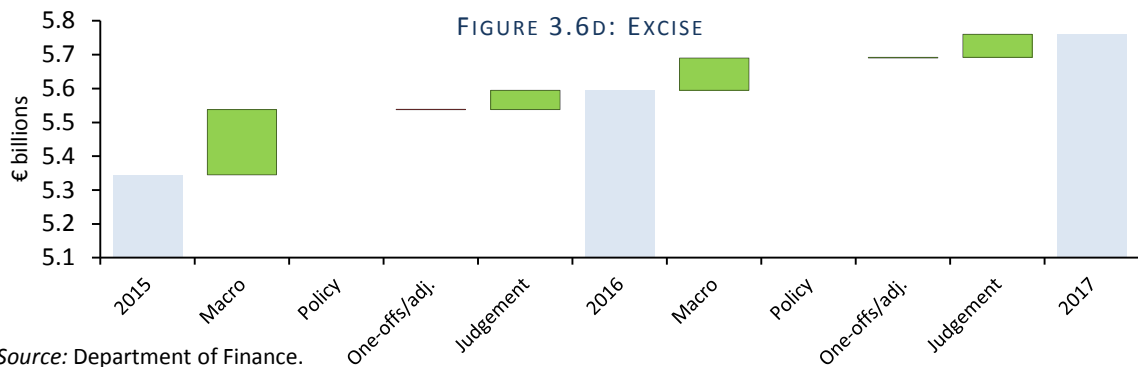
Source: Department of Finance.  
 Note: Floating bars show transition from 2015 tax take to 2016 and from 2016 to 2017. Green is positive, red negative. The macro driver is the non-agricultural wage bill.



Source: Department of Finance.  
 Note: Floating bars show transition from 2015 tax take to 2016 and from 2016 to 2017. Green is positive, red negative. The macro driver is nominal consumption adjusted for tourism spending.



Source: Department of Finance.  
 Note: Floating bars show transition from 2015 tax take to 2016 and from 2016 to 2017. Green is positive, red negative. The macro driver is Gross Operating Surplus (a proxy for company profits).



Source: Department of Finance.

Note: Floating bars show transition from 2015 tax take to 2016 and from 2016 to 2017. Green is positive, red negative. The macro drivers are nominal consumption and value of car purchases.

The only tax head to be adjusted for policy measures is income tax where the *Budget 2016* tax package is assumed to impact revenue from this source. In 2017, the indexation bar reflects the cost of increasing the PAYE tax bands in line with growth in the non-agricultural wage bill. PAYE is also adversely affected by the carryover from tax cuts in previous years. Finally, there is a large downward adjustment to PAYE in 2017 related to the timing of SEPA payments as a result of the lower number of banking days at the end of 2017. These payments will occur in 2018 instead. In general government accounting, which is done on an accruals basis, this timing issue will have no effect. This SEPA issue also impacts VAT and corporation tax but to a lesser extent.

## EXPENDITURE

Expenditure over the period 2016-18 has been revised up by an average of €1.3 billion. Part of this is accounted for by the inclusion of Irish Water from 2014 onwards. A €600 million expenditure package is proposed for 2016. Increases in the outer years reflect the inclusion of an extra €300 million each year to cover the cost of demographic pressures.

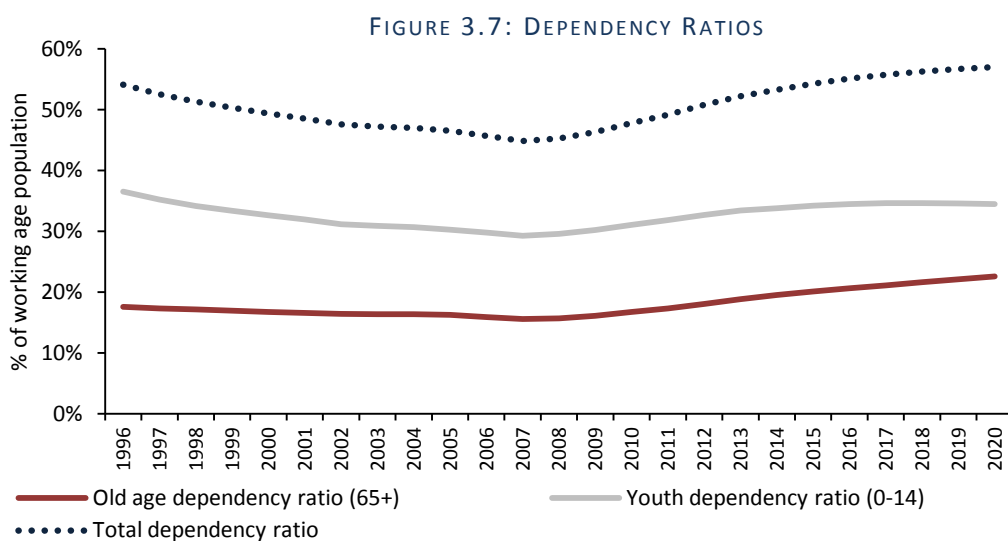
The *Comprehensive Expenditure Report 2015-2017* (CER 2015-2017) published in October 2014 set out new expenditure ceilings on foot of a review of all areas of expenditure. A comprehensive review process should have detailed the policies necessary to reconcile bottom-up spending demands (including demographic pressures, rising costs and pay) with a medium-term fiscal policy. In this case, the aggregate expenditure ceilings would act as a good forecast for spending out to 2017 as they act to prevent spending from rising above them. Unfortunately, the process does not appear to have worked in this manner with the ceilings set out in October 2014 being replaced with forecasts on a 'no-policy change' basis.

The precise meaning of no-policy change after 2016 is unclear from *SPU 2015*. The expenditure projections take account of the impact of falling unemployment-related spending. It seems that increases in public sector pay have not been allowed for and capital expenditure is left unchanged

after 2017, pending the publication of the *Capital Expenditure Review*. Beyond this, it is uncertain whether the additional €300 million each year is sufficient to maintain the same level of public services. As discussed below, *SPU 2015*'s projections imply a significant fall in spending as a percentage of GDP.

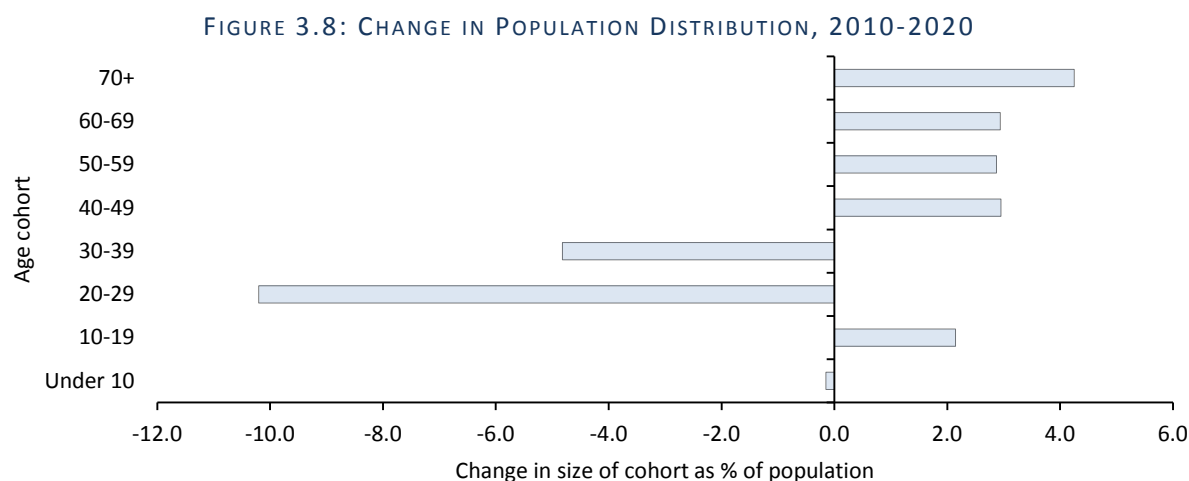
In the coming years, the state faces demands for higher expenditure in health, education, social protection and pensions as the composition of Ireland's population changes. In addition, the cost of providing the existing level of public services is likely to rise in line with the forecast general rise in prices and wages in the economy. Given the steep fall in the overall ratio of spending to GDP between 2015 and 2020 of over 5 percentage points, it appears unlikely that current plans make adequate provision for known future expenditure demands. In particular, the medium-term forecasts do not appear to include provision for increases to public sector pay, social welfare rates or capital expenditure.

An insight into the demographic changes that will give rise to expenditure pressures in the coming years is illustrated in Figure 3.7 and Figure 3.8. The projections are calculated using population and migration statistics from the CSO along with assumptions on fertility, mortality, migration, labour force and participation to calculate scenarios for the population by single year of age over a medium-term horizon. As a result of population ageing, the old age dependency ratio (the population aged over 70 years as a proportion of the working-age population) is expected to rise by over two percentage points by 2020 and to continue increasing thereafter. This will have important implications for public expenditure across a range of areas such as health and pensions.



Source: Internal IFAC calculations.

Figure 3.9 provides an illustration of likely changes in the population structure by 2020. With the ageing of the large cohort currently in their 20s and early 30s, a significantly larger proportion of the population is expected to be in the older age cohorts by 2020 while the proportion in the younger age groups will shrink significantly.



Source: Internal IFAC calculations.

Taking these projections for the population and indexing various categories of government expenditure to relevant prices in the economy, it is possible to construct an illustrative scenario for the public finances that takes account of the demographic pressures faced by the state in the coming years as illustrated above. For the purpose of this exercise, the same forecasts for government revenue as contained in *SPU 2015* are used but a new illustrative scenario for government expenditure is set out. The scenario is not intended to provide a forecast for government expenditure but rather an illustration of the possible path of spending taking account of demographics and increases in the cost of providing public services without offsetting policy changes. Box E contains a description of the assumptions and indexation rules used to generate this medium-term expenditure scenario.

#### **BOX E: ASSUMPTIONS FOR ILLUSTRATIVE MEDIUM-TERM EXPENDITURE SCENARIO**

In order to construct a medium-term scenario, government expenditure is split into five headline components: health, education, social payments (including social welfare pensions), national debt interest and other. The assumptions used in generating the scenario are set out below and are in line with those commonly employed for an exercise of this type.

##### **HEALTH AND EDUCATION**

For health and education, pay and non-pay spending are modelled separately. The volumes of both pay and non-pay spending are linked to expected service demand arising from

demographic changes. Price changes for pay and non-pay spending are indexed to relevant deflators. For health, service demand is proxied by the change in the number of under-65 equivalents in the population while for education demand is proxied by the change in the population of potential students. The pupil-teacher ratio is assumed to remain unchanged at its current level. Pay rates in both cases are assumed to grow in line with economy-wide per capita nominal wages, the forecasts for which are taken from *SPU 2015*. The volumes of non-pay expenditure in health and education are assumed to grow in line with expected demand linked to demographics. Prices are indexed to the GDP deflator.

#### **SOCIAL PAYMENTS**

This element of expenditure can be split into four broad components:

- i. Old age payments: These are assumed to grow in line with the change in the population aged over 65 with payment rates indexed to growth in prices.
- ii. Child related payments: The volume is estimated using the change in the population aged under 17. Payment rates are assumed to grow in line with prices.
- iii. Unemployment benefits are linked to macro-economic dynamics rather than directly to demographics. The approach used is broadly the same as that applied by the Departments of Public Expenditure and Reform and Social Protection. This approach translated changes in unemployment to movements in the Live Register and then applies an average cost per individual.<sup>12</sup> The average cost term is indexed to price increases over the projection period.
- iv. Other payments: these include disability payments, back to education allowance, back to work allowances and other social payments. This category is assumed to grow in line with the change in the total population and prices.

#### **NATIONAL DEBT INTEREST**

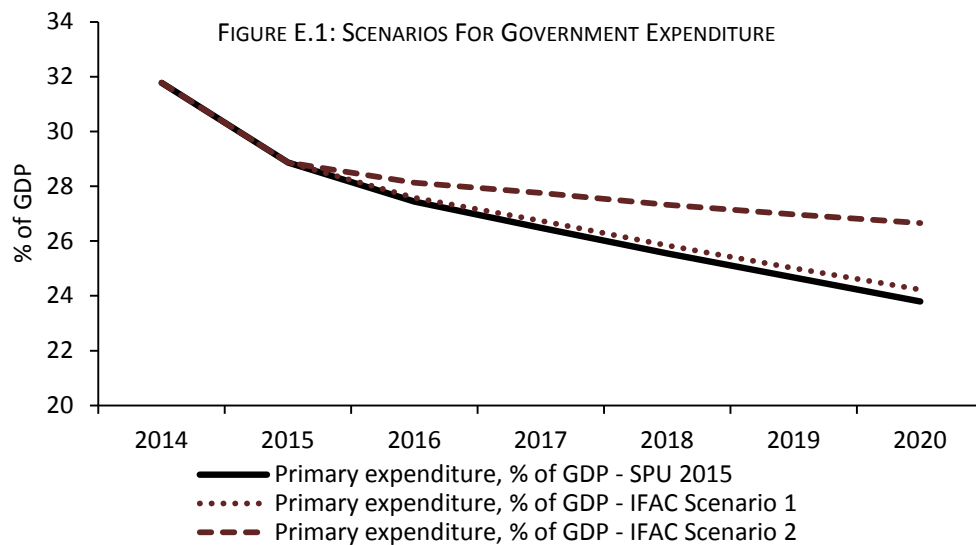
The Exchequer deficit is given by the gap between expenditure and revenue. National debt interest is calculated as the difference between the Exchequer balance projected in this scenario and the relevant figure underpinning *SPU 2015*, multiplied by the average interest rate. This gives the additional interest payments for a given year which is added to the interest bill on the outstanding stock of debt for the previous year to arrive at the figure for total national debt interest.

---

<sup>12</sup> This approach can be summarised as follows:

$$UB_{t+1} = UB_t + (LR_{t+1} - LR_t) * LRC_t + (\text{New policy measures}) + J_{t+1}$$

where, UB is the nominal sum of Jobseeker's Allowance and Jobseeker's benefit, LR is the average annual number of persons on the Live Register, LRC is the average cost per Live Register claimant and N is the net impact of new measures introduced in this area in the budget. The final term is assumed to be zero in the post 2016 period for this exercise.



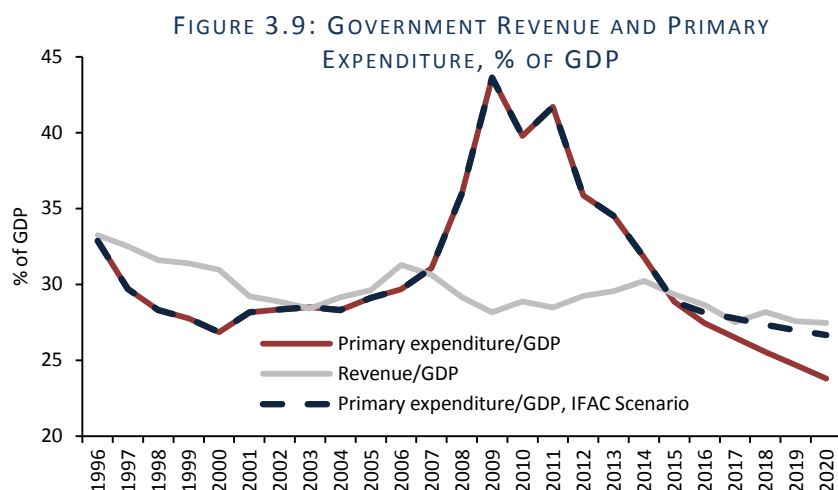
Note: Scenario 1 allows for demographic change with no indexation. Scenario 2 allows for demographic change plus indexation.

Source: Internal IFAC calculations.

Figure E.1 shows how the illustrative scenario is built up; firstly, adjustments for demographics are included; then provisions for increases in the cost of providing public services are made through indexation. While allowing only for demographics returns a spending profile that is broadly in line with the *SPU 2015* projections (which includes €300 million of spending increases for demographic pressures), accommodating increases in the cost of public services would result in expenditure being significantly higher than projected in *SPU 2015*.

Based on the assumptions and methodology described in Box E, Figure 3.9 shows the path of government expenditure in this illustrative scenario compared to the projections contained in *SPU 2015*. The scenario includes provision for higher expenditure as a result of demographic pressures, and price and wage increases (Scenario 2 as described in Box E). In this illustrative scenario, government primary expenditure as a ratio of GDP falls by around 2 percentage points between 2015 and 2020. *SPU 2015* in contrast envisages a 5 percentage point fall in the expenditure to GDP ratio over the same period.

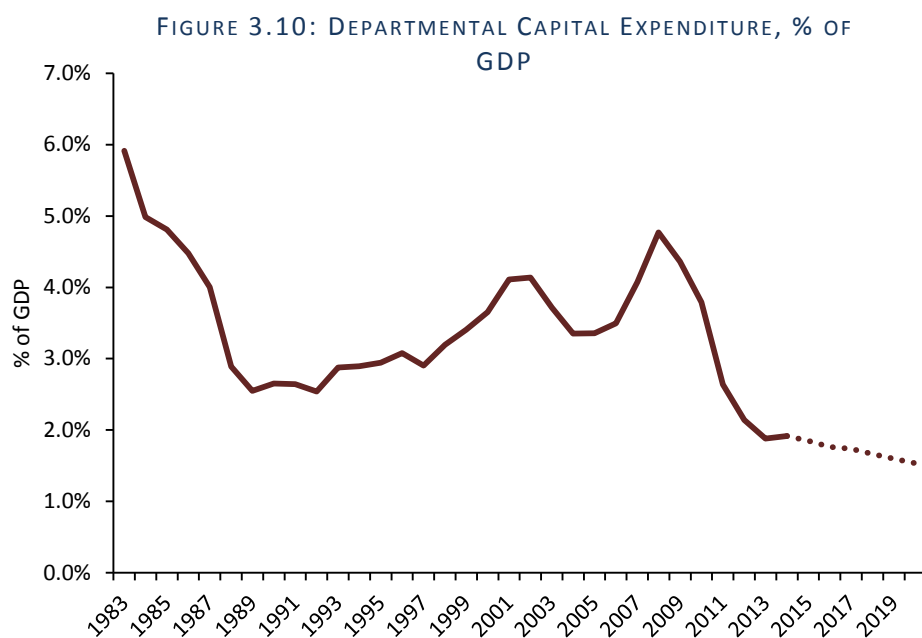




Note: Chart shows exchequer revenue and primary expenditure as a share of GDP.

Source: SPU 2015 and internal IFAC calculations.

It is important to note that this scenario does not change the projections for capital expenditure contained in *SPU 2015* as shown in Figure 3.10. The chart shows that *SPU 2015* forecasts envisage capital spending remaining at historic lows for an extended period. It is, therefore, likely that the upcoming review of capital expenditure will lead to upward adjustments to capital spending, with consequent impact on the overall level of government expenditure currently used as the basis for the *SPU 2015* forecasts for the public finances.



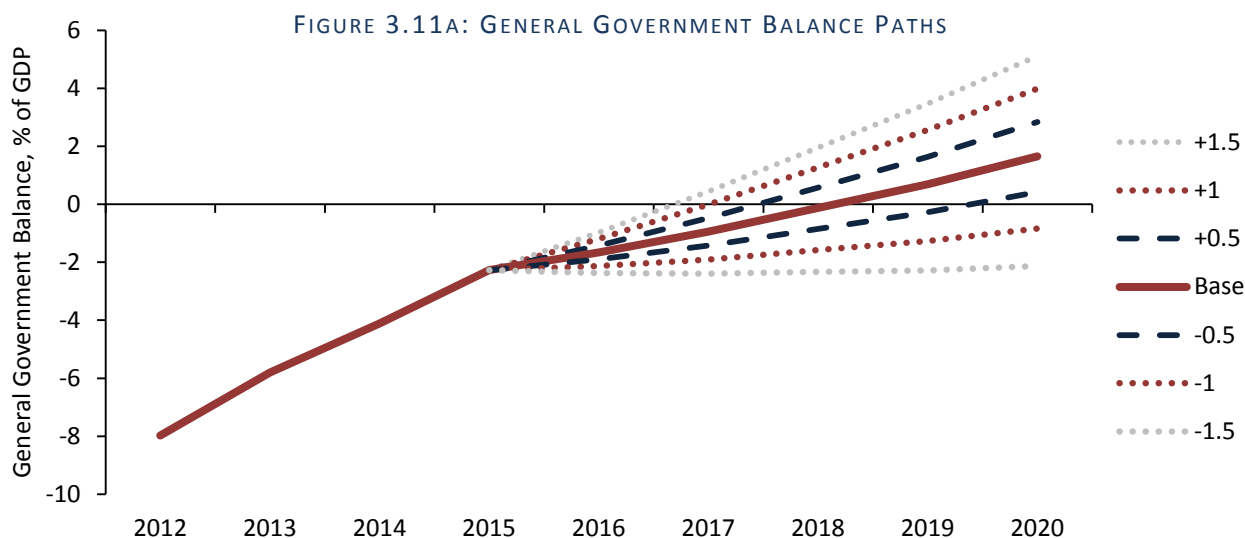
Source: SPU 2015, Budget and Economic Statistic (Department of Finance).

## 3.4 SENSITIVITY AND RISK ANALYSIS

### 3.4.1 GROWTH RISKS

Over the medium term, the attainment of a zero deficit by 2018 and surplus by 2020 remains dependent on economic growth. The Council's Fiscal Feedbacks Model can be used to estimate the affects of different future growth assumptions on the deficit and debt level. The results of assuming growth of plus or minus 1.5 per cent, 1 per cent and 0.5 per cent are shown in Figures 3.11A and 3.11B, below. Typical errors around the Department of Finance's nominal GDP growth rates are just under 2 percentage points.<sup>13</sup>

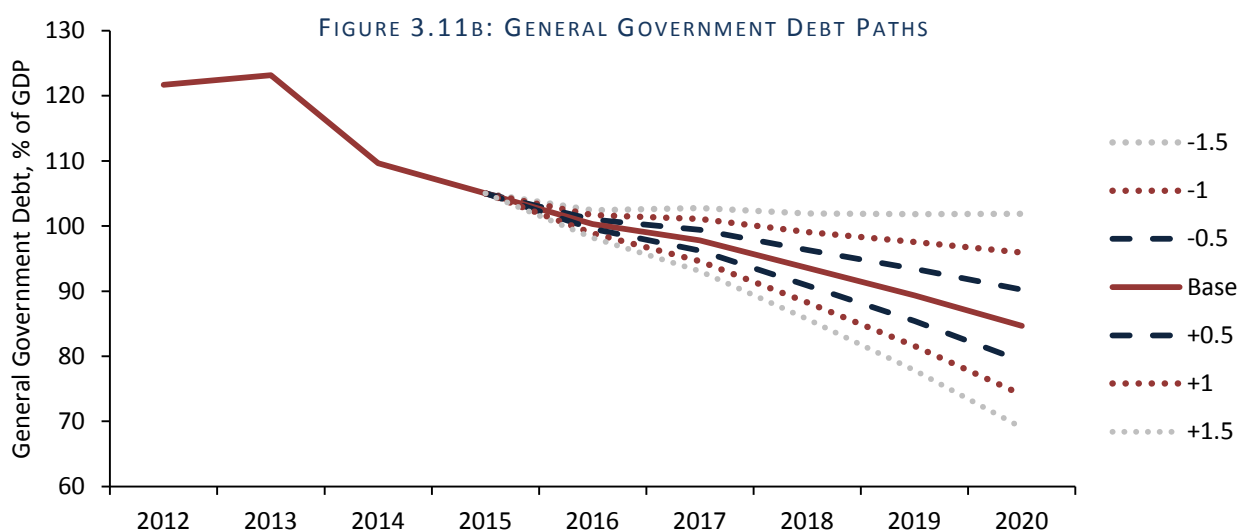
The graphs indicate that in an adverse scenario where nominal GDP growth from 2016 onwards disappoints by 1.5 percentage points each year, the deficit stagnates at just above 2 per cent, with the debt-to-GDP ratio remaining above 100 per cent. Even in a scenario where nominal growth disappoints by just half a percentage point each year (roughly a quarter of the typical in-year error), a General Government surplus only emerges in 2020 and debt remains above 90 per cent of GDP.



Source: Department of Finance, internal IFAC calculations based on the Council's Fiscal Feedbacks Model.

Note: The figure shows alternative projections of the balance ratio based on GDP growth forecasts that deviate from SPU projections by 0.5, 1.0 and 1.5 percentage points in either direction.

<sup>13</sup> Typical forecast error refers to the Root Mean Square Error of the Department of Finance's forecast for the current year.



*Source:* Department of Finance, internal IFAC calculations based on the Council's Fiscal Feedbacks Model.  
*Note:* The figure shows alternative projections of the balance ratio based on GDP growth forecasts that deviate from SPU projections by 0.5, 1.0 and 1.5 percentage points in either direction.

### 3.4.2 INTEREST RATE RISKS

Interest rates have recently retreated from historically low levels amid higher volatility in international bond markets. The yield on Irish 10 year bonds had fallen below 0.7 percentage points but was trading just above 1.2 per cent at end-May. Despite this rise, the current level represents a dramatic reversal of the situation in 2011 when bond yields peaked at over 14 per cent, while spreads have also tightened substantially over the same period.<sup>14</sup>

There is a risk that bond yields continue to retreat from current low levels. Developments in Greece could act as a catalyst for rising Euro Area yields in addition to moderating deflation risks and a normalisation in US monetary policy. While nearly four-fifths of outstanding Irish debt carries a fixed interest rate and so is insulated from interest rate movements, funding requirements<sup>15</sup> of nearly €13 billion per annum (or 5½ per cent of GDP) are estimated over the period 2016-2020. Assuming that debt-funding is used to finance these requirements in full, a shock to prevailing interest rates of 1.5 percentage points could raise the annual average interest rate by up to 0.4 percentage points.

<sup>14</sup> Spreads at the time of writing (vis-à-vis German Bunds) were less than 70 basis points, compared to almost 11½ percentage points in mid-2011.

<sup>15</sup> Funding requirements are proxied by the sum of maturing debt and Exchequer borrowing requirements.

There are mitigating factors such as the degree to which floating-rate debt instruments are converted to fixed rates through hedging activities by the NTMA and the fact that a large share of variable rate interest payments are subject to circular flows.<sup>16</sup> However, rises in average interest rates can also serve to aggravate risks of entering a self-reinforcing “bad equilibrium” as in the recent crisis period.<sup>17</sup>

### 3.4.3 BALANCE SHEET RISKS

Balance sheet risks have diminished considerably over the last number of years. Nonetheless, the Government still faces a number of risks from items both on and off balance sheet. Contingent liabilities fell to €30.5 billion in 2014 down from €66.9 billion in 2013 and €148.5 billion in 2011, with a large portion of the fall accounted for by the closure of the ELG scheme to new entrants in March 2013 and the ending of Exceptional Liquidity Assistance. The *SPU* projections, however, do not explicitly incorporate a large number of potential upside risks related to these items, which have a reasonable probability of being realised over the forecast horizon. It should be recalled, however, that explicit contingent liabilities were also low prior to the crisis. This did not prevent private-sector liabilities becoming actual liabilities of the State. While moves towards banking union – and especially the *Bank Resolution and Recovery Directive (BRRD)* – have reduced implicit contingent liabilities – past experience shows that the fiscal risks associated with the financial system require careful monitoring.

The risks emanating from both NAMA and the banking sector generally have receded. The ending of the ELG scheme had no significant effect on deposit retention and deposits now account for around two-thirds of bank funding. All three covered banks have returned to market funding and have reduced reliance on Eurosystem facilities. NAMA has repaid €19.4 billion (64 per cent) of the €30.2 billion of senior bonds guaranteed by government – a target originally planned for 2016. By end-2016, NAMA now aims to have paid down 80 per cent of the senior bonds it issued. On the

---

<sup>16</sup> Following the IBRC liquidation in February 2013, the Central Bank acquired a range of assets that included a portfolio of floating rate notes in exchange for the original Promissory Notes. The first sale of floating rate notes was in December 2014, when €500 million in nominal amounts were sold to the NTMA, leaving approximately €24.5 billion of remaining assets. By law, the Central Bank can retain up to 20 per cent of any profits made on these assets for the purpose of adding to its accounting reserves; any amount not retained is distributed to the Exchequer. When the Central Bank sells one of its floating rate bonds, it realises a gain which is then recorded as part of its profit. While such bonds are held by the Central Bank, interest paid on them also contributes to the Central Bank's profits, partly offset by the effective cost of funds to the Central Bank (currently, just 0.05 per cent). In May 2015, the Central Bank reaffirmed its intention to “...dispose of the government bonds as soon as possible, provided conditions of financial stability permit.” It also repeated that the minimum schedule for disposals was “...€0.5 billion up to the end of 2014, €0.5 billion per annum up to 2018, €1 billion per annum for each of the next five years and €2 billion per annum after that. This position remains unchanged.” See Central Bank (2015) FAQ Special Portfolio for more detail.

<sup>17</sup> The classic “bad equilibrium” concept focuses on the effects of default fears related to rising interest rates and subsequent deteriorations in debt dynamics. Rising default concerns can lead to larger risk premia on Government borrowing; the resulting high interest rates, in turn, worsen a country's debt dynamics, and this reinforces initial fears (see Calvo, 1988, for the classic multiple-equilibria model).

basis of the performance to date and rising property prices, the risk that this contingent liability might crystallize appears to have fallen significantly. Some downside risks arising from NAMA and the banking sector could materialise if unexpected signs of stress tied to a wider deterioration in the macroeconomic environment or international financial markets were to emerge. As the baseline *SPU* fiscal projections do not incorporate any positive proceeds from these areas, the potential losses associated with explicit contingent liabilities are relatively low.