BUDG€T 2018

ECONOMIC AND FISCAL OUTLOOK

Incorporating the Department of Finance's Autumn Forecasts

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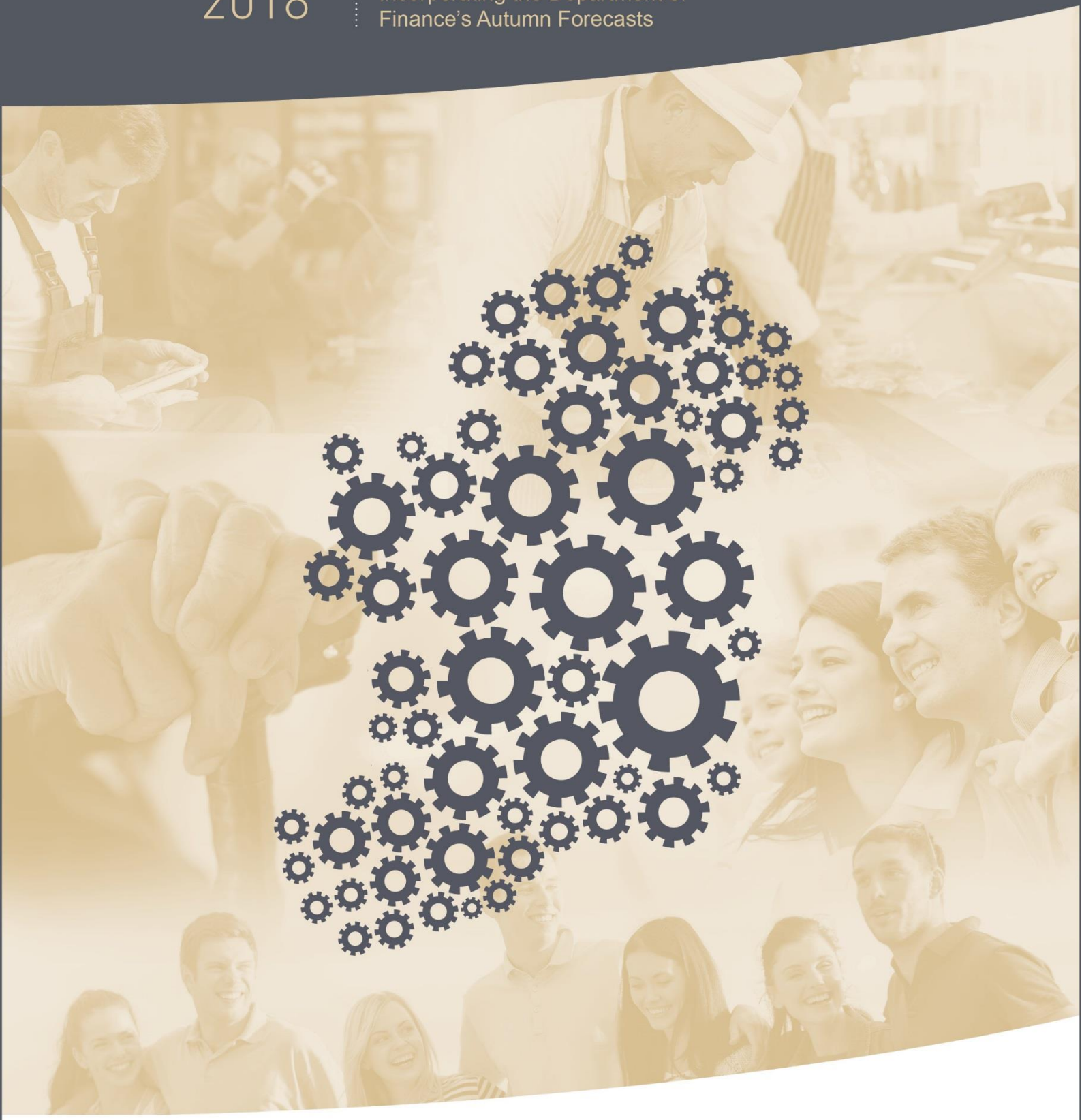

Prepared by the Department of Finance

Rialtas na hÉireann
Government of Ireland

BUDGET 2018

Economic and Fiscal Outlook

(Incorporating the Department of Finance's Autumn Forecasts)

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Tables, Figures, Boxes and Annexes

Tables

Tables, Figures, Boxes and Annexes (continued)

Chapter 1
Overview and General Policy Strategy

1.1 Policy Strategy

A decade ago, the first tremors of the global financial crisis were being felt. What ultimately transpired was the deepest global recession in decades and the fall-out was severe, especially for the Irish economy which *in tandem* suffered its own, self-inflicted wound. Decisive policy action in the intervening period has put the Irish public finances on a more sustainable footing and the medium term budgetary objective (MTO) of a balanced budget is now within sight; on the basis of the projections set out in this document, the MTO will be achieved next year.

Notwithstanding significant progress in recent years, many of the scars of the crisis remain, including a high level of public debt. The lesson is clear: policy must ensure that the mistakes of the past are not repeated. To this end, the Government will 'balance the books' next year as well as maintain the debt ratio on a downward trajectory, both of which are crucial for continued, sustainable improvements in our living standards.

In the decade since the crisis began, the scale of global economic – as well as social and political – change has been enormous. To navigate our economy successfully through these ongoing changes, it is imperative that sensible, sustainable and prudent policies continue to be implemented domestically. A key part of this is ensuring that the economy is sufficiently flexible so that it can adapt rapidly to changes in the external environment.

Recovery from the crisis has been underway, in earnest, since around 2013 with the economic cycle now entering a more mature phase. Indeed, the more-rapid-than-assumed pace of recovery means that capacity constraints are becoming increasingly binding. The unemployment rate, perhaps the best indicator of slack in the economy, continues to fall and, while not there yet, the economy is approaching full-employment. In these circumstances, it is crucial that budgetary policy is not used in a manner that over-heats the economy. In the Budget for next year, the Government is implementing sensible budgetary policies designed to address key priority areas while, at the same time, ensuring that the economy can absorb the increased outlays without adding to inflationary pressures. For instance, current expenditure next year will grow at a rate that is below the real growth rate of the economy. Increases in public spending are being targeted towards those areas where social and economic needs are greatest – capital spending, for example, will increase by around 17 per cent next year in order to address infrastructural constraints.

But it is also important to focus on the totality of public spending – and not just the incremental amount. Next year total spending will amount to around €61 billion and it is imperative that these taxpayer funds are allocated in a manner which ensures value-for-money.

The labour market is perhaps the best barometer of economic developments at present, given the many distortions in the headline GDP and GNP indicators, and a key priority for the Government is to ensure an environment that is supportive of job creation. To this end, the Government will continue to reform the income taxation system in order to ensure that work pays. The Government's approach, which is focussed on low- and middle-income earners, is to ensure steady and sustainable progress in reducing the income tax burden in the years ahead.

Ensuring competitiveness is also a key priority for Government. Providing certainty, including with respect to the future evolution of the public finances, is important to support investment and job creation. This is why the Government is providing for a 10-year capital plan to address bottlenecks and promote balanced regional growth. This will allow businesses and families plan for the future

with greater certainty. Moreover, measures announced in the Budget designed to support the provision of finance to the residential construction sector will help to address housing supply shortages and, in doing so, support further competitiveness improvements.

While short-term prospects internationally have generally improved since the spring – with the notable exception of the UK – the evolution of both external demand and international policies remains uncertain. For instance, notwithstanding the possibility of a pause in the UK's exit from the European Union until 2021, the manner of the UK's exit remains unclear; the actual post-exit arrangements will have a major bearing on economic prospects for Ireland (as has been highlighted in several Department of Finance publications). There is also considerable uncertainty attached to potential corporation tax changes in some regions. On a more positive note, the prospect of de-globalisation and more protectionism appears to have receded somewhat.

Given the prevailing levels of uncertainty, a key policy priority is to re-build our safety buffers so that the economy can withstand any deterioration in the external environment. This means ensuring a sustainable evolution of costs, including by continuing to promote and support productivity growth, as well as ensuring steady progress in reducing public indebtedness. The establishment of a *Rainy Day Fund* will also play an important role in enhancing our safety buffers.

1.2 Short-term Economic and Budgetary Outlook

Short-term economic prospects remain generally favourable, although recent exchange rate realignments, if sustained, have the potential to de-rail the recovery in certain sectors and regions.

Table 1: summary – main economic and fiscal variables, per cent change (unless stated)

	2016	2017	2018
Economic Activity			
Real GDP	5.1	4.3	3.5
Real GNP	9.6	0.0	3.3
Prices			
HICP	-0.2	0.2	0.8
Core HICP	0.5	0.1	1.0
GDP deflator	0.0	0.5	0.9
Balance of Payments			
Trade balance (per cent of GDP)	22.0	25.3	24.2
Current account (per cent of GDP)	3.3	3.0	2.0
Labour Market			
Total Employment ('000)^	2,020	2,075	2,125
Employment	2.9	2.8	2.3
Unemployment (per cent)	7.9	6.3	5.7
Public Finances (per cent of GDP)			
General government balance	-0.7	-0.3	-0.2
Structural balance	-1.7	-1.1	-0.5
Debt ratio (year-end)	72.8	70.1	69.0
Net debt position (year-end)*	63.7	61.2	59.6

^ nearest 5,000.
~ net debt figures for 2016 and 2017 only.
Source: CSO and Department of Finance.

The baseline scenario is for GDP growth of 3.5 per cent next year, following an estimated expansion of 4.3 per cent this year. This, in turn, should continue to pay dividends in the labour market with employment growth of 2.3 per cent in prospect for next year. These short-term forecasts have been endorsed by the *Irish Fiscal Advisory Council* (see annex 1).

Turning to the public finances, tax receipts for this year as a whole are projected at €50.6 billion. While this aggregate figure is unchanged from this time last year, the composition of receipts is slightly different to earlier expectations. In particular, excise duty receipts are expected to be weaker than projected while corporation tax receipts are likely to over-perform; VAT and income tax receipts are likely to end the year broadly in line with expectations this time last year while projections for non-tax revenue are unchanged from the initial forecast. On the expenditure side, sustainable increases are being implemented to improve the quality of public services and to invest in the future.

Overall, therefore, a headline deficit of 0.3 per cent of GDP is projected for this year, a slight improvement from the 0.4 per cent of GDP that underpinned the SPU this year. A headline deficit of 0.2 per cent is forecast for following year. After adjusting these headline figures for the impact of the economic cycle, a structural deficit of 0.5 per cent of GDP is forecast for next year, consistent with our obligations under the *Stability and Growth Pact* of achieving the MTO.

The debt-to-GDP ratio continues to decline and is projected at 70.1 per cent at the end of this year. It must be acknowledged, however, that the recent evolution of the debt-to-GDP ratio overstates the improvement in public indebtedness. Other metrics – such as debt interest payments as a share of revenue or the ratio of debt-to-modified GNI[1] – show that, while declining, public indebtedness remains high in Ireland. This is the main reason why the Government is using the €3.4 billion realised from its disposal of part of its shareholding in AIB for debt reduction.

Net public indebtedness in Ireland – that is the general government sector's financial liabilities less its financial assets – is estimated at around 61.2 per cent of GDP at the end of this year. This takes into account financial assets amounting to around 8.9 per cent of GDP at end-year. It does not, however, take into account the State's remaining assets in the domestic banks; as these are disposed of over time, the outstanding amount of both gross and net debt will decline.

[1] Modified Gross National Income (also known as GNI*) more accurately reflects the income standards of Irish residents than GDP. It differs from actual GNI in that it excludes *inter alia* the depreciation of foreign-owned, but Irish-resident, capital assets (most notably intellectual property and assets associated with aircraft leasing) and the undistributed profits of firms that have re-domiciled to Ireland.

Chapter 2
Economic Outlook

2.1 Summary

The baseline forecast is for solid growth in the short-term, with GDP projected to increase by 3.5 per cent next year, following growth of 4.3 per cent this year. While GDP figures can be difficult to interpret in an Irish context, a broader range of measures – labour market indicators, tax revenue developments and trends in purchasing managers indices – confirm that the economy continues to perform strongly. Employment growth of 2.3 per cent is projected for next year, the equivalent of 48,000 additional jobs. Unemployment is expected to fall in parallel, with an average unemployment rate of 5.7 per cent expected.

Inflationary pressures are set to remain muted reflecting *inter alia* the recent appreciation of the euro-sterling bilateral rate which will dampen import prices. Having said that, if sustained, euro appreciation will undermine Irish competitiveness and lower exports next year, given the lagged impact of exchange rate developments on the real economy.

2.2 Macroeconomic Outturn 2017

GDP is forecast to increase by 4.3 per cent this year, a projection which, in aggregate terms, is unchanged relative to the Department's last forecast published in the spring. Positive contributions from both underlying domestic demand – that is excluding the volatile components of investment – and net exports are expected for this year. The level of GNP is expected to be broadly unchanged this year.

Consumer spending is assumed to increase by 2.3 per cent this year, as solid employment growth, wage increases and low inflation continue to support real household disposable income. Core goods consumption – that is consumer spending excluding the purchase of cars – remains solid, supported by continued improvements in consumer confidence. "Pent-up demand" may also be a factor supporting the ongoing recovery in consumer durables.

The recovery in investment is forecast to continue this year, although the headline figure is distorted by the assumption that intangible investment falls relative to last year's exceptionally high level. Building and construction spending is expected to drive growth in underlying investment this year, with significant increases in both residential and non-residential spending.

Exports of goods and services are forecast to grow by 3.5 per cent this year with contract manufacturing – exports of goods produced abroad under contract from an Irish-based entity – continuing to act as a significant drag on the headline figures, as has been the case in the first half of the year. On an underlying basis – that is after excluding exports associated with contract manufacturing – exports are expected to perform strongly once again this year, driven by robust merchandise exports and, in particular, double-digit growth in service exports.

Imports of goods and services are projected to decline this year reflecting *inter alia* a reduction in aircraft imports as well as the assumption of a significant fall in intellectual property imports (the counter-part to the assumed fall in intangible investment).

2.3 Macroeconomic Projections 2018

The external situation is somewhat of a mixed bag at present. The pace of growth in some key export markets is accelerating, most notably in the euro area where the cyclical recovery has gained momentum this year and where real GDP per capita looks set to finally surpass its level immediately preceding the crisis, i.e. 2007. On the other hand, the probability of a policy-induced stimulus in the

US economy is fading, while incoming data suggest a marked slowdown is underway in the UK economy. Projections for growth in key external markets are presented in table 2.

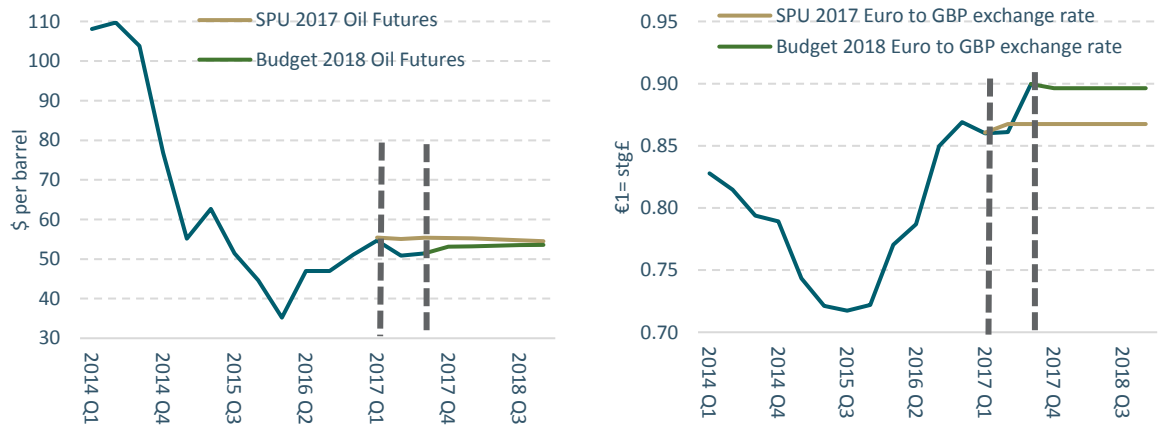
Table 2: external assumptions, per cent change (unless stated)

	2016	2017	2018	2019	2020	2021
External GDP growth						
United States	1.5	2.1	2.4	2.1	1.8	1.7
Euro area	1.8	2.1	1.9	1.6	1.5	1.5
United Kingdom	1.8	1.6	1.0	1.6	1.9	1.9
Technical assumptions						
Euro-sterling exchange rate (€1=)	0.82	0.88	0.90	0.90	0.90	0.90
Euro-dollar exchange rate (€1=)	1.11	1.14	1.20	1.20	1.20	1.20
Brent crude (dollars per barrel)	45	53	53	54	54	54

Oil prices (futures) in 2017 - 2019 are calculated on the basis of futures markets as of mid-September 2017. Oil price futures are available for the first quarter of 2020 and, thereafter, oil prices are held constant.
Exchange rate outturns as of mid-September 2017 and unchanged thereafter.
Source: OECD Interim Economic Outlook (September) for 2017-2018. Projections from 2019 to 2021 are taken from the IMF World Economic Outlook (April 2017).

Notwithstanding the improvement in demand on foot of more favourable prospects for the global economy, excess supply is keeping a lid on oil prices, with futures prices broadly unchanged from the Department's spring forecasts published in the *Stability Programme Update* (SPU). On the other hand, exchange rate re-alignments have been significant since the spring, with notable euro appreciation against both sterling and the dollar especially over the summer months (see figure 1), mainly reflecting a re-assessment by market participants of monetary policy prospects. If sustained, this will weigh on Irish competitiveness and depress export growth, with indigenous sectors of the economy – such as agri-food, traditional manufacturing and tourism – most exposed.

Figure 1: change in external assumptions relative to spring forecasts



The Department's spring forecasts are set out in the Stability Programme Update, April. In relation to exchange rates, the standard approach is to hold these constant at rates prevailing at a certain cut-off point (mid-March for the Department's spring forecasts and mid-September for the Department's autumn forecasts). Thus, given the appreciation of the euro relative to sterling since the spring, holding the exchange rate unchanged at mid-September levels would imply an appreciation of 3.3 per cent for 2018 relative to what had been assumed in the spring.
Source: Macrobond (for oil prices) and Central Bank of Ireland (for exchange rate data).

Against this background, headline exports are expected to increase by 4.8 per cent next year. Crucially, this forecast is based on the assumption that exports linked to contract manufacturing activity no longer weigh on overall exports. On an underlying basis, export growth is projected to decelerate next year reflecting *inter alia* unfavourable exchange rate developments and a moderation in service exports from the double-digit growth recorded in recent quarters.

Domestic demand is projected to drive growth next year with strong contributions from consumption and, in particular, investment spending. Consumer spending is forecast to increase by 2.3 per cent. Household income is projected to continue to strengthen driven primarily by gains in labour income, with employment and wage growth expected to remain relatively strong. Improvements in household balance sheets and continued low inflation will also help support personal consumption growth next year.

Investment spending is projected to accelerate next year, with broad-based growth across all components. Building and construction spending is projected to record double-digit growth once again driven by increases in house completions – albeit from relatively low levels – and a pick-up in public capital spending. Machinery and equipment investment is set to put in a solid performance on the back of ongoing recovery in domestic demand and reasonably solid external demand. The projections for next year also assume further increases in intangible investment. On this basis, an increase in overall investment of 6.1 per cent is projected for next year. Forecasts for headline investment are subject to a considerable margin of uncertainty as volatile components – such as intangibles – account for over half of overall investment spending. However, large swings in these components are, in general, GDP-neutral in the short-term due to the high import content of such spending.

Imports of goods and services are expected to grow by 5.5 per cent next year, a figure which is broadly in line with the growth of final demand. Overall, therefore, GDP is projected to increase by 3.5 per cent next year, with GNP projected to increase by 3.3 per cent.

Table 3: macroeconomic prospects

	2016	2017	2018	2019	2020	2021
	year-on-year per cent change					
real GDP	5.1	4.3	3.5	3.2	2.8	2.6
nominal GDP	5.2	4.9	4.4	4.4	4.1	4.1
real GNP	9.6	0.0	3.3	3.0	2.5	2.3
components of GDP	year-on-year per cent change					
personal consumption	3.3	2.3	2.3	2.2	2.1	1.9
government consumption	5.3	2.0	2.0	2.0	1.9	1.7
investment	61.2	-3.7	6.1	5.6	4.2	3.8
stock changes^	0.1	-0.6	0.1	0.0	0.0	0.0
exports	4.6	3.5	4.8	4.3	4.0	3.8
imports	16.4	-1.0	5.5	4.9	4.4	4.2
contributions to real GDP growth	annual percentage point contribution					
domestic demand	14.1	-0.2	2.8	2.7	2.3	2.1
net exports	-9.2	5.2	0.6	0.5	0.5	0.5
stock changes	0.1	-0.6	0.1	0.0	0.0	0.0
statistical discrepancy	0.1	0.0	0.0	0.0	0.0	0.0

Rounding can affect totals.
^ contribution to GDP growth.
Source: Source: 2016 - CSO; 2017 to 2021 - Department of Finance.

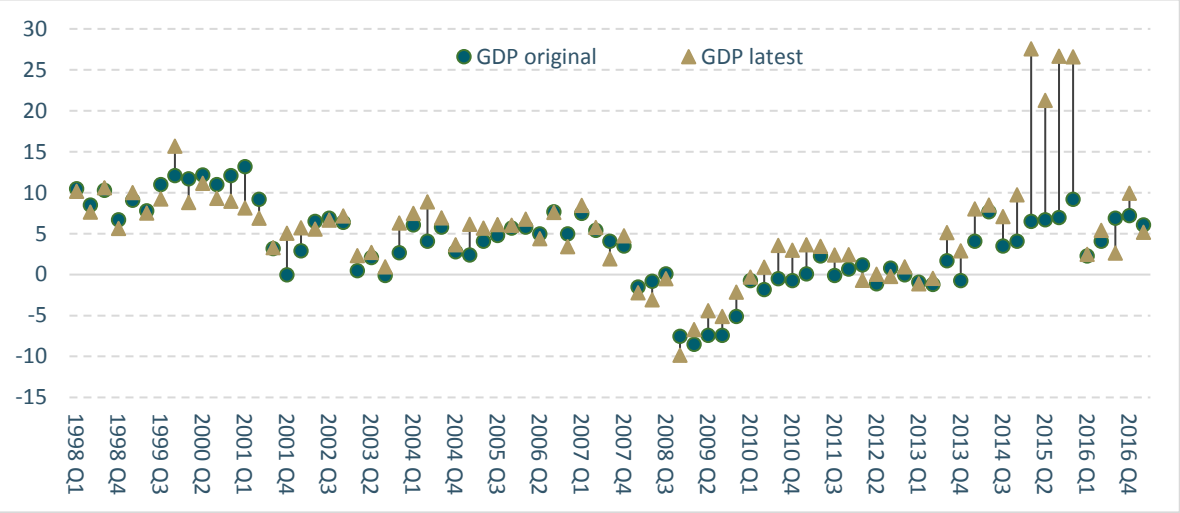
Box 1: revisions to the quarterly national accounts

Since the late 1990's, the CSO has produced national accounts on a quarterly basis. As elsewhere, the production of quarterly data inevitably involves a trade-off between timeliness and quality; while the methodology for calculating quarterly figures is similar to that used in the production of annual accounts, the data sources are not as comprehensive as those used to compile the annual accounts. The CSO routinely identifies the quarterly data as preliminary and highlights the limited data sources for a number of key inputs.

In these circumstances, quarterly estimates of GDP are subject to a greater margin of revision than the annual accounts. The graph below shows the initial year-on-year growth rate in each quarter since 1998 (earliest data for annual growth rates) and compares this with the latest published estimate. The average difference (in absolute terms) between the two estimates is known as the 'mean absolute error' (MAE).

Over the full sample size, the MAE was 2.7 percentage points. The magnitude of revisions in Ireland is very large and ranks among the highest in the OECD, reflecting the highly globalised nature of the Irish economy. If the extraordinary growth rate in 2015 (which clearly involved a massive revision to the quarterly data) is excluded, the MAE falls to 1.9 percentage points. Revisions to GNP growth rates, which incorporate highly volatile multinational profit outflows, are even more substantial.

Annual GDP growth revisions, year-on-year growth



Source: CSO

While revisions are clearly an important source of forecast uncertainty, preliminary quarterly estimates can be useful as a guide for demand-side forecasts, given they have been shown to be unbiased.[2] [3] In particular, carryover analysis and implied quarterly profiles can, in principle, be useful tools to inform short-term forecasts. The carryover effect refers to the growth rate that would be observed if the level of GDP remained unchanged at its current, seasonally-adjusted level. In general, during an expansionary phase the carryover acts as a lower bound for forecasts in a given time period. However, in the case of a small, highly globalised economy such as Ireland's, the magnitude and variability of revisions to quarterly data caution against placing too much weight on carryover effects.

[2] Quill, P (2008), "*An Analysis of Revisions to Growth Rates in the Irish Quarterly National Accounts*", Special article in Quarterly Economic Commentary, ESRI, Autumn 2008.

[3] Casey, E and Smyth, D (2016), "*Revisions to Macroeconomic Data: Ireland and the OECD*", Economic and Social Review, 47 (1).

2.4 Balance of Payments

The trade surplus is set to rebound sharply this year reflecting reasonably solid export growth and the assumed contraction in imports (mainly due to lower R&D imports). However, this is expected to be more than offset by a substantial increase in net factor outflows, with the elevated levels of primary income outflows seen in the first half of 2017 assumed to continue in the second half of this year. On this basis, a current account surplus amounting to 3 per cent of GDP is projected this year. For next year, the current account surplus is projected to fall to 2 per cent of GDP reflecting *inter alia* a decline in the terms-of-trade (exchange rate related) and an assumed pick up in R&D imports (the latter being the counter-part to the assumed increase in intangible investment).

Table 4: savings, investment and the balance of payments, per cent of GDP

	2016	2017	2018	2019	2020	2021
Gross Savings	36.0	32.9	33.1	33.3	33.2	33.1
of which:						
- households	2.2	2.2	2.2	2.2	2.1	2.1
- corporate	32.6	29.0	29.0	28.9	28.6	28.3
- government	1.2	1.7	2.0	2.2	2.5	2.8
Investment^	32.6	29.9	31.1	32.1	32.6	33.1
of which:						
- building and construction	6.4	7.5	8.5	9.2	9.7	10.0
- other investment	25.4	22.2	22.4	22.5	22.7	22.8
: investment in tangible assets	7.5	7.0	7.0	6.9	6.9	6.9
: investment in intangible assets	17.9	15.2	15.4	15.6	15.7	15.8
- change in stocks	0.9	0.2	0.3	0.3	0.3	0.3
- statistical discrepancy	0.0	0.0	0.0	0.0	0.0	0.0
Current account	3.3	3.0	2.0	1.3	0.6	0.1
of which:						
- trade balance	22.0	25.3	24.2	23.4	22.8	22.5
- income balance	-18.7	-22.2	-22.2	-22.2	-22.3	-22.4

Rounding can affect totals.
^ More specifically, Gross Capital Formation which is the sum of gross domestic fixed capital formation, changes in stocks and the statistical discrepancy.
Source: 2016 - CSO; 2017 to 2021 - Department of Finance.

2.5 The Labour Market

The labour market provides arguably the clearest indicator of the underlying performance of the economy at present, given the difficulty in interpreting the headline measures (GDP, industrial production, trade, etc.). In this regard, positive momentum has continued this year, with employment growth of 2.8 per cent (56,000 jobs) forecast for the year as a whole. Employment is now at its highest level since 2008 (figure 2). The increase in employment remained broad based with gains evident across most sectors and regions.

Unemployment has fallen in parallel, with an average unemployment rate of 6.3 per cent projected for this year. In particular, short-term unemployment continues to fall, and the decline in spare capacity is putting some upward pressure on wage dynamics (figure 2).

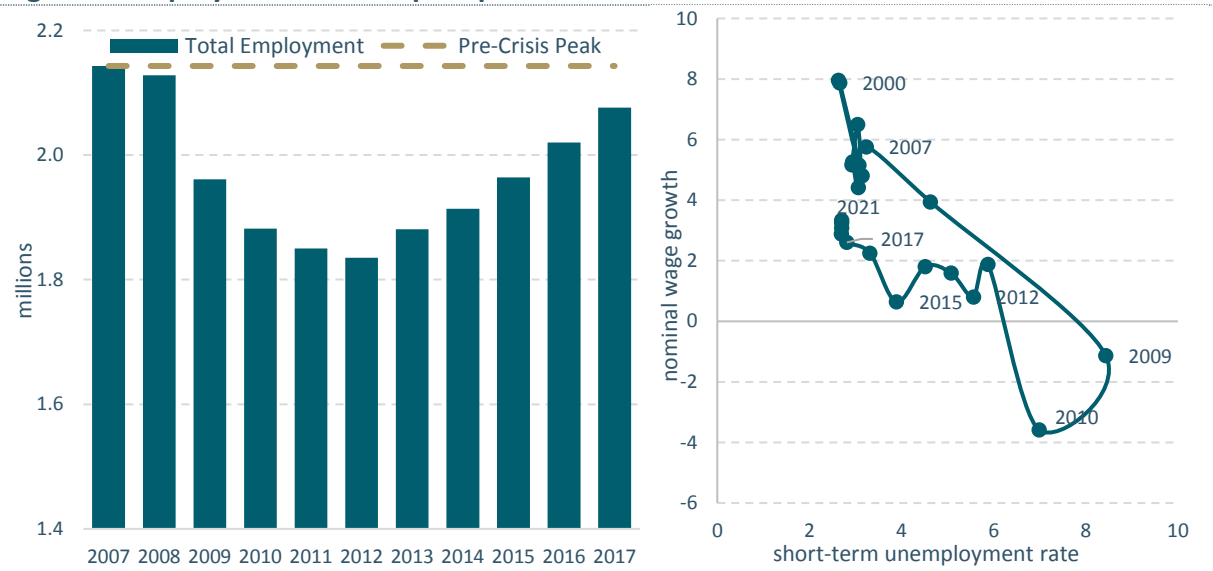
Table 5: labour market prospects, per cent change (unless stated)

	2016	2017	2018	2019	2020	2021
Employment	2.9	2.8	2.3	2.1	1.8	1.6
Unemployment rate (QNHS basis)	7.9	6.3	5.7	5.5	5.5	5.5
Labour productivity^	2.2	1.5	1.2	1.1	1.0	1.0
Compensation of employees*	5.4	5.6	5.6	5.4	5.2	5.0
Compensation per employee*	2.2	2.8	3.1	3.2	3.4	3.4

^ GDP per person employed.
*Non-agricultural sector.
Source: 2016 - CSO; 2017 to 2021 - Department of Finance.

The positive labour market performance is set to continue next year with employment projected to increase by 2.3 per cent (48,000 jobs). Employment gains are once again expected to surpass labour force growth, resulting in unemployment falling to an average of 5.7 per cent in 2018.

Figure 2: employment and the phillips curve



Source: CSO and Department of Finance.

2.6 Price Developments

After a prolonged period of low and even negative rates in developed economies, inflation began to pick up in the latter stages of 2016 and early 2017. In the euro area, for instance, annual inflation – as measured by the Harmonised Index of Consumer Prices (HICP) – averaged 1.6 per cent in the first eight months of this year. On the other hand, HICP inflation in Ireland over the same period was much lower, averaging just 0.2 per cent. In part, this reflects the larger impact of euro-sterling appreciation on consumer prices in Ireland.

HICP inflation in Ireland is expected to remain muted over the remainder of this year, with only a modest pick-up next year as the lagged impact of the recent appreciation of the euro continues to dampen import prices. Services price inflation should accelerate next year, on foot of continued growth in domestic demand and the ongoing recovery in the labour market. Futures markets suggest a slight pick-up in oil prices during the final quarter of this year (see figure 1), with only a modest pick-up in 2018. However, even this modest increase will be more than offset by exchange rate

developments, given that oil is invoiced in dollars. Taking all these factors into account, HICP inflation is expected to average 0.2 per cent this year with core inflation projected at 0.1 per cent. For 2018, headline inflation is expected to increase to 0.8 per cent, with core inflation rising to 1.0 per cent.

Table 6: price developments, per cent change

	2016	2017	2018	2019	2020	2021
GDP deflator	0.0	0.5	0.9	1.1	1.3	1.5
Personal consumption deflator	0.9	1.2	1.7	1.8	2.0	2.0
Harmonised index of consumer prices (HICP)	-0.2	0.2	0.8	1.4	1.8	1.9
Core HICP inflation	0.5	0.1	1.0	1.4	1.8	1.9
Export price deflator (goods and services)	-1.9	0.3	-0.4	0.0	0.4	0.8
Import price deflator (goods and services)	-1.7	1.0	0.1	0.3	0.7	0.9
Terms-of-trade (good and services)	-0.2	-0.7	-0.5	-0.3	-0.3	-0.1

Source: 2016 - CSO; 2017 to 2021 - Department of Finance.

The GDP deflator – a measure of the price changes in the economy as a whole – is forecast to increase by 0.5 per cent this year, as domestic price increases are being partially offset by a deterioration in the terms-of-trade (export prices increasing less than import prices). On the basis of the technical assumption of unchanged exchange rates from those prevailing at mid-September, a slightly more modest deterioration in the terms-of-trade is projected for next year. Combined with a moderate increase in consumer prices, the GDP deflator is assumed to increase by 0.9 per cent next year.

2.7 Medium-Term Growth Prospects 2019 to 2021[4]

Over the medium term, the economy has the capacity to grow by around 3½-4 per cent per annum, according to the harmonised methodology that is used to calculate potential output in the EU Member States.[5] This approach includes the use of statistical filters that extend to t+2 (2019 in this case) and a mechanical extension rule to close the output gap in a smooth, linear manner between t+3 to t+5. Since the statistical filters only run to 2019 and do not incorporate all the forecast information to 2021, potential output growth estimates would appear to be higher than expected and contribute to a negative output gap in 2019.

It must be acknowledged, however, that the concept of potential growth is less meaningful for a small, open economy such as Ireland, which *inter alia* is characterised by significant cross-border mobility of labour and capital. Indeed, the positive output gap currently estimated for this year, which is inconsistent with the limited inflationary pressures in the economy, highlights the health warnings attached to estimates of the cycle using this framework.

Over the medium term, domestic demand is set to drive growth with strong positive contributions from private consumption and investment spending. Consumer spending is expected to remain robust growing by around 2 per cent per annum over the 2019-2021 period supported by continued gains in household disposable income. Investment as a share of GDP is projected to increase over the forecast

[4] In order to further enhance the budgetary framework, the Department of Finance is now publishing its macroeconomic and fiscal forecasts on an *ex-post* basis, i.e. incorporating the fiscal space as set out in Budget 2018.

[5] A detailed description of the harmonised methodology is set out in Havik *et al* (2014), European Economy Economic Papers 535.

horizon as building and construction activity reverts to more 'normal' levels. Exports are expected to continue to grow in excess of trading partner demand reflecting the favourable composition of Irish exports, i.e. concentration of Irish exports in dynamic sectors, in particular, 'high-growth' service sectors. Imports are assumed to grow broadly in line with final demand.

Employment growth is expected to continue over the medium-term – averaging 1.8 per cent per annum between 2019 and 2021. It is envisaged that labour supply will increase through positive inward migration and increased participation. Employment growth will be in line with labour force growth for much of the period, surpassing it slightly in 2019. On this basis, the unemployment rate is forecast to fall to 5.5 per cent by 2019, and then stay at this rate over 2020-2021.

2.8 Comparison of Forecasts

This section compares the Department's forecasts with those of other institutions as well as comparing how the Department's forecasts for this year and next have evolved since the last set of forecasts.

Table 7 shows the Department's short-term forecasts relative to those of other public sector institutions. In terms of next year, the range of forecasts for GDP extends from 2.5 per cent to 4.0 per cent, illustrating the uncertainty attached to forecasts for economic activity in Ireland at present (the timing of the production of the forecast is also an issue). There is more consensus around labour market projections, with the range for employment growth extending from 1.6 per cent to 2.3 per cent.

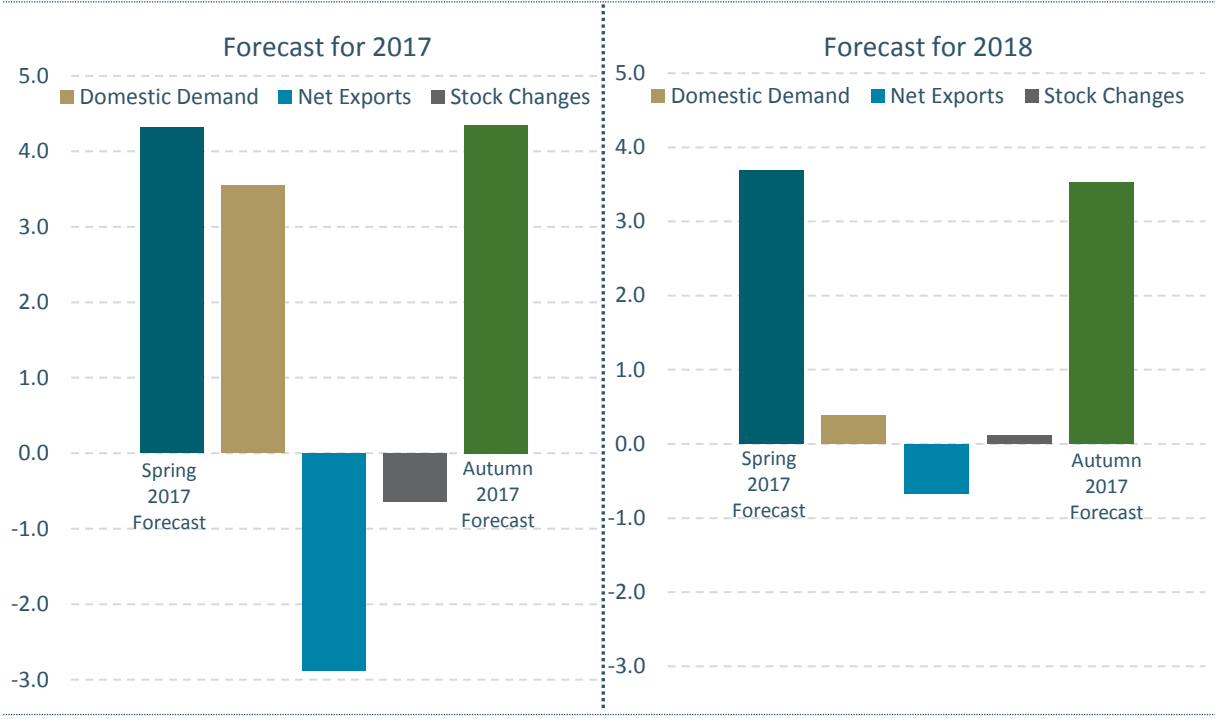
Table 7: range of forecasts, per cent change

2017	GDP	GNP	HICP	Employment
Department of Finance	4.3	0.0	0.2	2.8
Central Bank of Ireland	4.5	4.3	0.3	3.0
IMF	3.9	n/a	0.9	2.8
ESRI	5.0	5.4	n/a	3.3
European Commission	4.0	n/a	0.6	2.6
OECD	3.7	n/a	0.8	n/a
2018	**GDP**	**GNP**	**HICP**	**Employment**
Department of Finance	3.5	3.3	0.8	2.3
Central Bank of Ireland	3.6	3.4	1.0	2.0
IMF	3.3	n/a	1.5	1.6
ESRI	4.0	3.9	n/a	2.3
European Commission	3.6	n/a	1.2	2.1
OECD	2.5	n/a	2.0	n/a

Source: latest set of projections from institutions cited.

Figure 3 compares the Department's autumn forecasts with its spring forecasts published in the SPU at end-April. GDP growth for this year is unchanged relative to the Department's spring forecasts while, for next year, the current set of projections incorporate a small downward revision to GDP to take into account *inter alia* the appreciation of the exchange rate since the earlier set of forecasts.

Figure 3: comparison of autumn and spring 2017 GDP forecast, per cent change



Source: Department of Finance.

Chapter 3
Exchequer Developments and Outlook

3.1 Summary

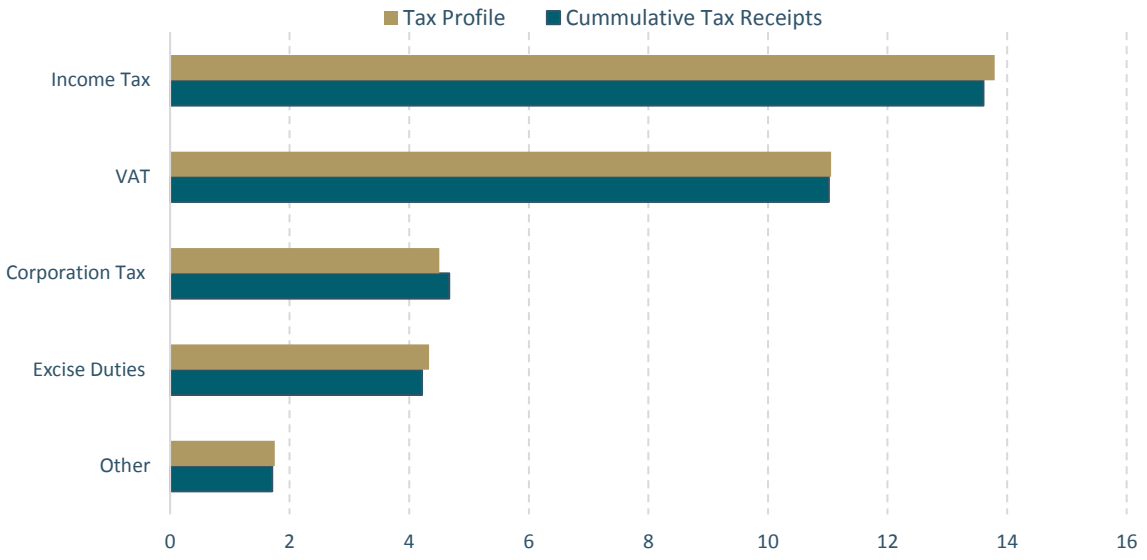
An exchequer surplus of €1.5 billion is projected for this year. Excluding the monies received from the sale of 29 per cent of the State's holdings in AIB, the underlying exchequer deficit was €2.0 billion. For next year, an exchequer deficit of €2.3 billion is projected.

3.2 Exchequer Outturn 2017

At end-September, Exchequer tax revenues were broadly in-line with the Budget 2017 profile, with aggregate receipts just 0.6 per cent (€0.2 billion) behind expectations. Indeed, aggregate receipts in the year to end-September are up 5.4 per cent relative to the same period last year.

At a disaggregated level, all of the major tax heads, with the exception of excise duties, are up significantly in annual terms and are broadly in-line with target. Of the 'big four' tax heads (which account for around 95 per cent of total taxation revenue), corporation tax was the best performing in the year to end-September. Corporation tax receipts in the first nine months were up 12.3 per cent (€0.5 billion) relative to the same period last year. This was 3.8 per cent (€0.17 billion) ahead of expectations and, as a result, the projection for full-year corporation tax receipts has been revised upwards.

Figure 4: end-September cumulative tax receipts relative to profile, € billions



Source: Department of Finance.

In relation to income tax, which is the single largest tax head, performance in the first nine months has been reasonably strong with receipts up 5 per cent (€0.7 billion) in year-on-year terms. Having said that, receipts are slightly behind (1.4 per cent, €0.2 billion) expectations. This shortfall is largely due to weaker-than-expected receipts from unearned sources of income, such as DIRT and Life Assurance Exit Tax. An additional factor relates to a downward revision to the elasticity of USC

revenue (PAYE), with research suggesting that this is lower than initially assumed.[6] The largest component of income tax – namely PAYE income tax, which accounts for around two-thirds of total income tax receipts – remains on target and, at end-September, is up by 9 per cent (€0.8 billion) year-on-year. Strong receipts are anticipated from the self-employed returns in October/November, with the result that the projection for income tax receipts for the year as a whole is unchanged.

Table 8: exchequer balance 2017-2021, € million

	2017	2018	2019	2020	2021
CURRENT BUDGET					
Expenditure					
Gross voted current expenditure	53,955	55,595	56,945	58,395	59,835
Non-voted current expenditure*	9,275	9,695	9,475	9,310	8,650
Gross current expenditure	**63,225**	**65,290**	**66,425**	**67,705**	**68,490**
Less expenditure receipts and balances	11,970	12,220	12,340	12,465	12,590
Net current expenditure	**51,255**	**53,070**	**54,080**	**55,240**	**55,895**
Revenue					
Tax revenue	50,620	53,660	56,380	59,095	61,960
Non-tax revenue	2,800	2,345	1,925	1,655	1,525
Net current revenue	**53,420**	**56,005**	**58,305**	**60,750**	**63,485**
CURRENT BUDGET BALANCE	**2,160**	**2,935**	**4,225**	**5,510**	**7,590**
CAPITAL BUDGET					
Expenditure					
Gross voted capital expenditure	4,540	5,330	6,570	7,175	7,785
Non-voted capital expenditure*	1,080	1,080	1,085	1,085	1,080
Gross capital expenditure	**5,620**	**6,410**	**7,655**	**8,260**	**8,865**
Less capital receipts	255	255	255	255	255
Net capital expenditure	**5,365**	**6,160**	**7,405**	**8,005**	**8,610**
Revenue					
Capital resources	4,660	945	1,210	935	945
CAPITAL BUDGET BALANCE	**-705**	**-5,215**	**-6,195**	**-7,070**	**-7,665**
RAINY DAY FUND	0	0	500	500	500
EXCHEQUER BALANCE	**1,455**	**-2,275**	**-2,475**	**-2,065**	**-580**
Memo: Government Expenditure Ceiling**	**58,495**	**60,925**	**63,515**	**65,570**	**67,620**

Source: Department of Finance
Rounded to nearest €5 million which may affect totals
* Central Fund.
** GEC for years 2017 to 2020 as approved by Government, GEC for 2021 is a projection.
See Paragraph 7.2 of Chapter 7 regarding proposed general government neutral changes to be incorporated in the REV.

[6] http://www.finance.gov.ie/updates/income-tax-revenue-elasticities-in-ireland-an-analytical-approach-research-series-no-59/

VAT receipts are more-or-less in line with expectations with strong revenues evident across a broad category of sectors. At end-September, total VAT receipts are up 8.1 per cent (€0.8 billion) relative to the same period last year. Given trends to end-Quarter 3, the projection for VAT receipts for the year remains broadly unchanged.

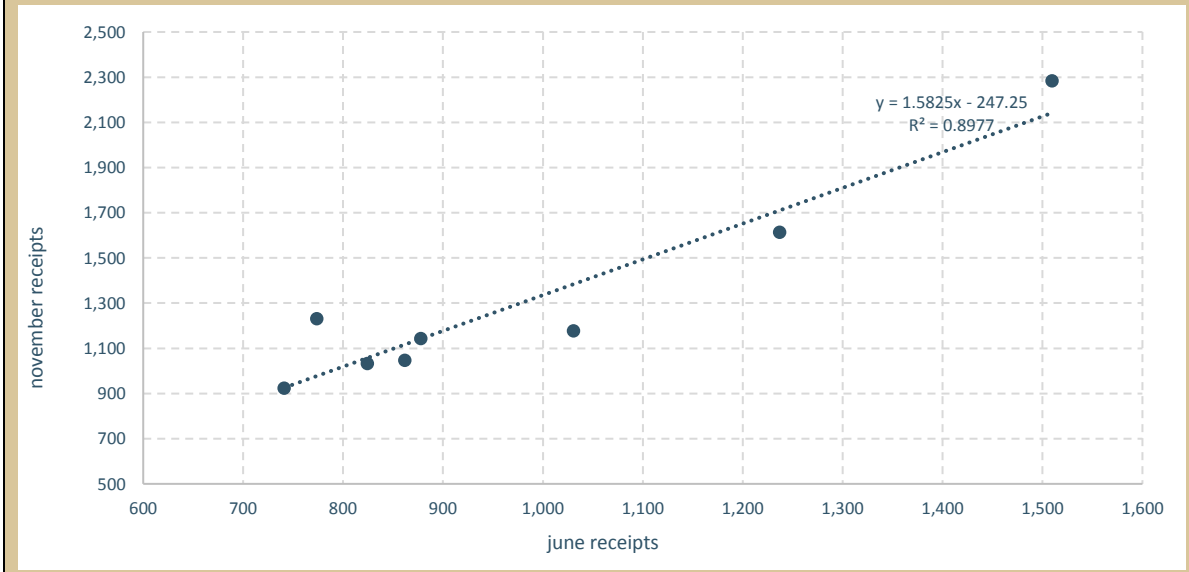
Excise duties have been behind profile all year, with weaker-than-expected receipts evident across a broad range of components. As this shortfall is not expected to be recovered over the final quarter this year's projection for excise duty receipts has been revised downwards.

Box 2: forecasting in-year corporation tax receipts

The so-called 'two pack' legislation requires all euro area Member States to submit Draft Budgetary Plans to the European Commission by mid-October each year. Since 2013, therefore, the annual budget in Ireland has moved from December to mid-October. Purely from the perspective of projecting base-year tax receipts (and, hence, the level of tax receipts for the following year) the timing is sub-optimal. In particular, it requires the production of tax receipts without information regarding the November outturn – November is the single most important month for tax collection with, most notably, schedule D income tax receipts (self-employed) and the bulk of corporation tax receipts due in that month.

In order to better inform the in-year corporation tax forecast for the Budget, June corporation tax data can provide important insights. For those with accounting years ending on 31 December, large corporations pay preliminary tax for the current year in June so, in principle, these data can be informative regarding the likely November receipts. This is borne out by the statistical analysis below, which shows a strong correlation between June payments and the final payments in November (over the period 2009-2016).

Corporation tax receipts, June and November 2009-2016, € million



Source: Department of Finance analysis based on data from Revenue Commissioners

Having said that, it is important to bear in mind the concentration of corporation tax receipts in Ireland, with the top-10 payers accounting for nearly two-fifths of total payments. Idiosyncratic shocks affecting any of these firms could have an impact on receipts. Moreover, preliminary payments are based on projected profitability – if actual profitability by year-end is lower-than-projected in June, later corporation tax payments will be lower than expected.

All-in-all, therefore, the statistical analysis and trends noted in other months of the year justify an upward revision to this year's estimated corporation tax yield, but firm-specific factors mean that there remains significant uncertainty surrounding the end-year position.

In aggregate terms, the remaining tax heads, which consists of capital taxes and customs, are expected to close the year broadly in line with the original target. In overall terms, therefore, Exchequer tax receipts are forecast at €50.6 billion, unchanged from both the Department's spring forecasts (published in the SPU) and the forecast that underpinned the budget for this year, published last October. This represents a 5.8 per cent or €2.8 billion annual increase.

The projection for non-tax revenue this year remains unchanged from the SPU. The Budget 2018 figure for capital resources now includes the €3.4 billion in proceeds from the State's disposal of part of its AIB shareholding which, while Exchequer positive, has no impact upon the general government position as it is a financial transaction. In addition the forecast for capital resources has been increased by around €0.2 billion primarily due to a technical cash-flow transaction (again this is neutral from a general government accounting perspective).

Total voted expenditure for 2017, as provided for under the Government Expenditure Ceiling (GEC), is estimated at €58.5 billion. This represents a 0.7 per cent addition to the level set out in the SPU. The distribution of this sees €54.0 billion allocated to current expenditure, with €4.5 billion to capital spending. The in-year increase in current spending mainly reflects the policy decision to refund domestic water charges and to meet the funding gap arising from their abolition. This was previously signalled in the *Summer Economic Statement (SES)* and *Mid-Year Expenditure Report*.

Total non-voted current expenditure for 2017 is forecast to reach €9.3 billion this year, which is approximately €0.13 billion lower than the level set out in the SPU, mainly driven by debt service savings and a lower-than-expected EU Budget contribution. Non-voted capital expenditure is largely unchanged.

Taking all of these developments into account, an Exchequer surplus of €1.5 billion is expected for this year. After one-off factors (the disposal of 29 per cent of AIB this year; receipts from the redemption of contingent capital instruments last year), the underlying improvement in the Exchequer is estimated at €0.6 billion this year.

3.3 Exchequer Outlook 2018

Tax revenue next year is projected at €53.7 billion, an increase of 6.0 per cent relative to this year and broadly tracking the forecast nominal economic growth rate. This also takes into account the impact of the taxation measures announced in the Budget. In relation to the main tax heads, income tax is projected to increase by 5.9 per cent next year reflecting *inter alia* continued strong employment and earnings growth. Relatively robust consumer spending is expected to support a 5.0 per cent increase in VAT receipts. Corporation tax receipts are forecast to increase by 6.8 per cent next year. While, excise duties are expected to grow at a more modest rate of 1.5 per cent next year mainly due to the observed front-loading of tobacco payments in 2017 in advance of the introduction of 'plain packaging'. Table 9 sets out the impact of the measures introduced in Budget 2018 on next year's fiscal position.

Non-tax revenue for 2018 is now estimated at €2.3 billion, around €0.3 billion higher than forecast in the spring. This is mainly due to increased projections of Central Bank surplus income from realised gains on the disposal of floating rate notes. While these increased receipts will assist Exchequer liquidity, it is neutral from a general government perspective.

Taking into account increases announced as part of the Budget, total voted expenditure next year is projected at €60.9 billion. Voted current expenditure is forecast at €55.6 billion, an annual increase of 3.0 per cent. Voted capital expenditure is forecast at €5.3 billion, an annual increase of 17.4 per cent.

Non-voted current expenditure is projected at €9.7 billion next year, a €0.1 billion reduction from the spring forecasts mainly due to debt service savings (these account for around two-thirds of overall Central Fund expenditure) albeit partially offset by some minor increases in other non-voted expenditures. Projected non-voted capital expenditure, at around €1.1 billion, is unchanged from the spring projection.

In overall terms, therefore, an Exchequer deficit of €2.3 billion is projected for next year, an underlying increase (i.e. after removing the impact of the AIB receipts in 2017) of €0.3 billion relative to this year driven mainly by increased capital investment to tackle infrastructural bottlenecks and to enhance the growth capacity of the economy.

3.4 Fiscal Outlook 2019 - 2021

Over the medium term, tax receipts are projected to broadly track nominal economic growth. Non-tax revenue is expected to decline over the forecast horizon, mainly due to the assumption of lower Central Bank surplus income (as the Bank is assumed to dispose of the floating rate notes issued to recapitalise IBRC according to its stated timeline).

On the expenditure side of the accounts, voted capital expenditure will increase significantly in line with Government policy to increase the public capital stock. Voted current expenditure will increase *inter alia* to take into account the need to meet demands arising from changes in the population structure (demographics). The budgetary projections over the medium term take into account the allocation of fiscal space according to agreements set out in the *Programme for a Partnership Government* and *Confidence and Supply* agreement.

Table 9: estimated impact of Budget 2018 on fiscal position in 2018, € million (unless stated)

	€m	€m
Tax reductions		**-335**
Revenue increases		**830**
Stamp Duty		375
Corporation Tax		150
Excise Duty		95
Income Tax		50
Other including compliance measures		100
National Training Fund Levy*		60
Net Revenue change		**495**
New expenditure measures		**1,080**
Current		870
Capital		215
Impact of new measures on Budget 2018 forecast (=tax buoyancy)		**140**
	White Paper	**Budget 2018**
Current expenditure		
Net voted current expenditure	42,690	43,375
Non-voted current expenditure	9,705	9,695
Net current expenditure	52,395	53,070
Current revenue		
Tax revenue	53,095	53,660
Non-tax revenue	2,345	2,345
Net current revenue	55,440	56,005
CURRENT BUDGET BALANCE	3,050	2,940
Capital expenditure		
Net voted capital expenditure	4,860	5,075
Non-voted capital expenditure	1,085	1,080
Net capital expenditure	5,945	6,160
Capital resources	945	945
CAPITAL BUDGET BALANCE	-5,000	-5,215
EXCHEQUER BALANCE	-1,955	-2,275
General Government Balance	-90	-535
per cent of GDP	0.0	-0.2

Rounded to nearest €5 million which affects totals.
*While the National Training Fund Levy measure is part of the revenue raising consolidation package being announced In Budget 2018, the revenues generated are captured in the estimates of expenditure and receipts set out in table 8. They do not form part of the €53,660 million post-Budget 2018 tax revenue forecast.
Source: Department of Finance and the Department of Public Expenditure and Reform.

Table 10: alternative presentation of exchequer position, € million

	2017	2018	2019	2020	2021
Revenue	**64,679**	**67,381**	**69,854**	**72,357**	**75,313**
: tax revenue	50,620	53,660	56,381	59,095	61,962
- Income tax	20,245	21,444	22,487	23,742	25,092
- VAT	13,425	14,090	15,006	15,780	16,595
- Corporation tax	7,965	8,504	8,867	9,240	9,637
- Excise duties	5,735	5,820	6,026	6,161	6,287
- Stamp duties	1,200	1,673	1,801	1,913	2,021
- LPT	470	470	470	470	470
- Customs	335	343	350	360	372
- Capital gains tax	795	843	881	917	954
- Capital acquisitions tax	450	472	493	513	534
: A-in-As (inc. PRSI, NTF and balances)	12,223	12,473	12,594	12,719	12,844
: non-tax revenue	1,724	1,175	818	492	456
- Central bank surplus income	992	559	258	25	33
- Dividends	320	246	278	330	294
- other	413	371	282	137	128
: capital resources	111	73	61	51	52
Expenditure	**67,292**	**70,144**	**72,518**	**74,406**	**75,797**
: gross voted current expenditure	53,953	55,593	56,946	58,396	59,836
: non-voted current expenditure	8,798	9,222	9,002	8,835	8,176
- national debt interest	6,147	6,104	5,882	5,677	4,993
- debt management expenses	143	188	169	160	147
- EU budget contribution	2,300	2,650	2,675	2,750	2,775
- other	208	280	276	248	261
: gross voted capital expenditure	4,541	5,329	6,570	7,175	7,785
Balance excluding transactions with no GG impact	**-2,613**	**-2,763**	**-2,665**	**-2,049**	**-483**
Revenue transactions with no GG impact	**5,624**	**2,043**	**2,253**	**2,044**	**1,958**
: non-tax revenue	1,074	1,171	1,106	1,162	1,067
- Central bank surplus income	844	961	896	952	857
- Transfer from local government fund	230	210	210	210	210
: capital resources	4,550	872	1,147	882	891
- Sale of AIB shares	3,433	0	0	0	0
- FEOGA	770	780	800	800	800
- Loan repayments	346	90	345	70	70
- Other	1	2	2	12	21
Expenditure transactions with no GG impact	**1,556**	**1,556**	**2,061**	**2,058**	**2,054**
: non-voted current expenditure	475	474	475	475	476
- Transfer of LPT to LGF	470	470	470	470	470
- Other	5	4	5	5	6
: non-voted capital expenditure	1,081	1,082	1,087	1,083	1,078
- FEOGA	780	800	800	800	800
- Capital contribution to Irish Water	270	270	270	270	270
- Other	31	12	17	13	8
: transfer to Rainy Day Fund	0	0	500	500	500
Transactions with no GG impact	**4,068**	**487**	**191**	**-14**	**-96**
Exchequer balance	**1,455**	**-2,276**	**-2,473**	**-2,063**	**-579**

See paragraph 7.2 of Chapter 7 regarding proposed general government neutral changes to be incorporated in the REV.
Source: Department of Finance.

Chapter 4
General Government Developments and Outlook

4.1 Summary

A general government deficit of 0.3 per cent of GDP is projected for this year, improving further next year with a headline deficit of 0.2 per cent of GDP in prospect. After adjusting for the impact of the economic cycle, this headline deficit next year is consistent with the medium term budgetary objective (MTO), a structural deficit of 0.5 per cent of GDP, the anchor of the preventive arm of the *Stability and Growth Pact*.

4.2 General Government Balance in 2017

General government revenue is projected at €75,395 million this year, broadly unchanged from that which was set out in the spring. This is 3.8 per cent higher than in 2016, chiefly due to higher general government tax revenue.

Table 11: exchequer balance to GGB 2016-2021, € million (unless stated)

Description	2016	2017	2018	2019	2020	2021
Exchequer balance	-1,010	1,455	-2,275	-2,475	-2,065	-580
Walk[1]	-895	-2,450	1,735	2,145	2,885	3,445
General Government balance	**-1,905**	**-995**	**-540**	**-330**	**820.000**	**2,865**
of which:						
General Government revenue	**72,650**	**75,395**	**78,730**	**81,565**	**84,780**	**88,390**
Taxes on production and imports	23,430	24,615	25,730	26,950	27,925	28,970
Current taxes on income, wealth	29,085	31,080	32,800	34,165	35,790	37,590
Capital taxes	410	340	345	375	395	415
Social contributions	12,050	12,750	13,155	13,585	14,160	14,715
Property Income	1,820	1,640	1,190	915	770	770
Other	5,850	4,965	5,510	5,575	5,735	5,930
General Government expenditure	**74,555**	**76,385**	**79,265**	**81,900**	**83,960**	**85,525**
Compensation of employees	19,355	20,435	21,255	21,785	22,235	22,715
Intermediate consumption	9,405	9,805	10,620	10,735	10,895	10,895
Social payments	28,495	28,825	29,095	29,285	29,745	30,240
Interest expenditure	6,185	5,895	5,645	5,560	5,385	5,035
Subsidies	1,675	1,740	1,645	1,685	1,690	1,670
Gross fixed capital formation	4,905	5,325	6,190	7,355	7,720	7,910
Capital transfers	1,460	1,110	1,275	1,425	1,465	1,455
Other	3,075	3,255	3,540	3,575	3,640	3,670
Resources not allocated	0	0	0	505	1,185	1,935
memo items						
General government balance per cent GDP	-0.7	-0.3	-0.2	-0.1	0.3	0.8
General government balance per cent GNI*[2]	-1.0	-0.5	-0.3	-0.2	0.4	1.3
Total revenue per cent GDP	26.4	26.1	26.1	25.9	25.8	25.9
Total revenue per cent GNI*[2]	38.4	39.6	39.6	39.3	39.2	39.4
Total expenditure per cent GDP	27.1	26.4	26.3	26.0	25.6	25.0
Total expenditure per cent GNI*[2]	39.4	40.2	39.9	39.4	38.9	38.1

1. The 'walk' from the exchequer balance to the general government balance is set out in table A1 in the appendix.
Source: Department of Finance.
2. Modified GNI (GNI*) is a purely technical assumption, for illustrative purposes only, moving in line with GNI

On the other side of the equation, general government expenditure is projected at €76,385 million this year; this is an increase from the spring and mainly reflects repayments of Irish Water charges. Primary expenditure – that is excluding interest payments – stands at €70,490. As a result, a general government deficit of 0.3 per cent of GDP is projected for this year.

4.3 General Government Balance in 2018

For next year, general government revenue is forecast to increase by 4.4 per cent, mainly on foot of stronger general government tax receipts. General government primary expenditure is forecast at €73,620. With interest expenditure amounting to a projected €5,645, a general government deficit of 0.2 per cent of GDP, €540 million, is projected for next year.

The material in table 12 below represents the current estimate of local government 2018 balance. These figures will be updated for the publication of the Revised Estimates Volume, which take into account further key elements in this process. This information is published in line with the requirements of Regulation (EU) 473/2013, on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the euro area Member States, which requires the main parameters of sub-sectors of general government to be included in the Budget (for Ireland, the local government sector is the only sub-sector of general government).

Table 12: estimate of local government income and expenditure for 2018, € million

	2018
General government revenues / inflows	**6,922**
Rates / NPPR (net of bad debt provision for rates)	1,511
Property income	1,364
Other receipts	419
Inflows from central government[1]	3,535
Inflows from operations in financial instruments[2]	93
	0
General government expenditure / outflows	**6,925**
Compensation of employees[3]	1,834
Interest paid to non-government[4]	5
Social benefits (transfers in kind to households)	644
Capital transfers (capital grants paid)	2,258
Other expenditure (net of bad debt provision for rates)	2,073
Outflows to central government[5]	67
Outflows from operations in financial instruments[6]	44
Local government balance	**-4**

Figures may not sum due to rounding.
1. Grants and subsidies.
2. Loans.
3. Including pensions.
4. Interest paid other than to the HFA, OPW or NTMA.
5. Interest and principal paid to the HFA, OPW and NTMA.
6. Principal repaid, other than to the HFA, OPW or NTMA.
Source: Department of Environment, Community and Local Government.

4.4 Structural Budget Balance and Medium Term Budgetary Objective (MTO)

The Medium Term (Budgetary) Objective (MTO) is the cornerstone of the preventive arm of the *Stability and Growth Pact*. MTOs are country-specific and set in structural terms. Ireland's MTO is a structural deficit of 0.5 per cent of GDP. On the basis of the projections for actual and potential GDP set out in this document, a structural deficit of 1.1 per cent of GDP is in prospect this year, closing to 0.5 per cent of GDP next year, consistent with achieving the MTO within the timeframe set by the Government.

Table 13: structural budget balance, per cent of GDP (unless stated)

	2016	2017	2018	2019	2020	2021
Headline fiscal developments						
General government balance	-0.7	-0.3	-0.2	-0.1	0.3	0.8
One-off / temporary measures	0.1	-0.1	0.0	0.0	0.0	0.0
Interest expenditure	2.2	2.0	1.9	1.8	1.6	1.5
General government primary balance	1.6	1.7	1.7	1.7	1.9	2.3
Economic cycle						
GDP growth rate	5.1	4.3	3.5	3.2	2.8	2.6
Potential GDP growth (%)	5.7	4.5	4.5	4.4	3.6	3.1
- contribution from labour	2.5	1.7	1.7	1.7	0.9	0.5
- contribution from capital accumulation	1.0	0.8	0.9	0.9	0.8	0.7
- contribution from total factor productivity	2.1	1.9	1.8	1.8	1.8	1.9
Output gap	1.7	1.6	0.6	-0.5	-0.4	-0.2
Structural fiscal developments						
Cyclical budgetary component	0.9	0.8	0.3	-0.3	-0.2	-0.1
Structural budget balance	-1.7	-1.1	-0.5	0.2	0.5	0.9
Structural primary balance	0.6	1.0	1.4	1.9	2.1	2.4

Estimates of output gap based on harmonised methodology and assumed mechanical closure of output gap from 2020 onwards.
Note: Figures may not sum due to rounding.
Source: Department of Finance.

The Government has announced that once the MTO is achieved, a Rainy Day Fund (RDF) will be established in order to provide for a counter-cyclical buffer and to ensure the long-term sustainability of the public finances. The RDF will be capitalised in the coming year with €1.5 billion from the *Ireland Strategic Investment Fund*. Once the medium term budgetary objective is achieved in 2018 annual transfers of €500 million from the Exchequer will commence in 2019. A consultation paper has been published and sent to the *Oireachtas* to scope out some of the design and operational issues around the establishment of such a budgetary management mechanism.

4.5 Comparison of forecasts

Table 14 shows how the Department's fiscal forecasts compare with those of other public sector institutions. For the headline balance, there is very little variance among the set of forecasts for next year. For general government debt, the range extends from 62 per cent of GDP to nearly 73 per cent (debt dynamics are set out in chapter 5).

Table 14: comparison of budgetary forecasts, per cent of GDP

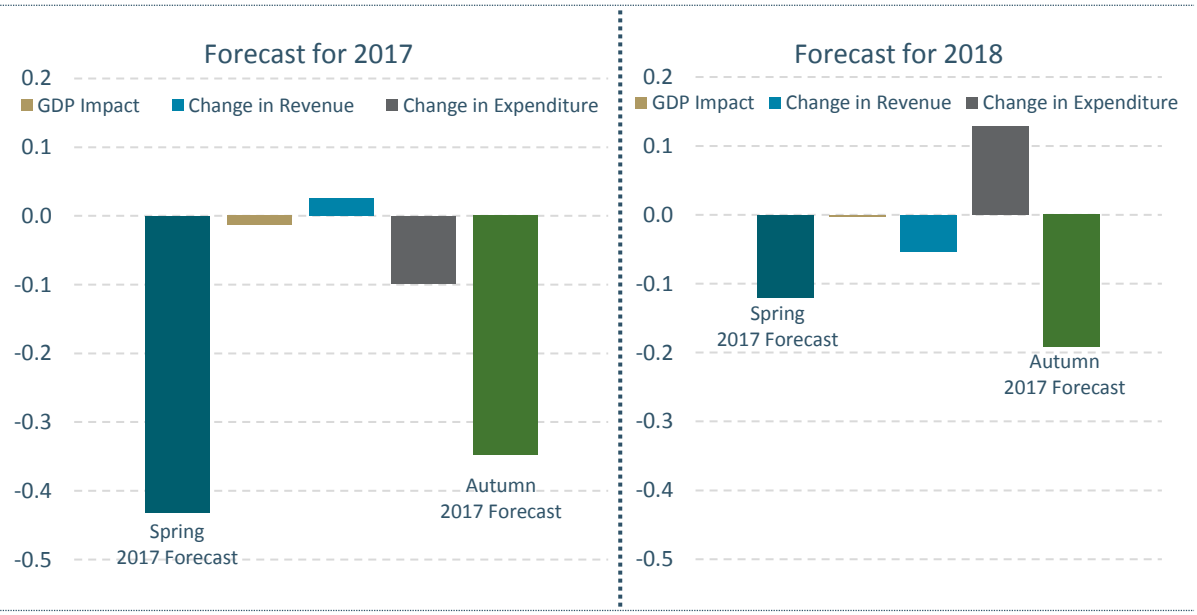
2017		GG debt	GG Balance	Structural Balance
Department of Finance	Oct-17	70.1	-0.3	-1.1
IMF	Jun-17	73.7	-0.5	-0.9
ESRI	Oct-17	66.2	-0.6	n/a
European Commission	May-17	73.5	-0.5	-1.1
OECD	Jun-17	74.8	-0.5	n/a

2018		GG debt	GG Balance	Structural Balance
Department of Finance	Oct-17	69.0	-0.2	-0.5
IMF	Jun-17	72.3	-0.2	-0.5
ESRI	Oct-17	62.4	-0.2	n/a
European Commission	May-17	72.7	-0.3	-0.3
OECD	Jun-17	72.1	-0.2	n/a

GG = general government.
Source: latest forecasts of institutions cited.

Figure 5 compares the Department's autumn forecasts for the general government balance with its spring forecasts published in the SPU at end-April. The forecast for the general government balance this year is slightly better than assumed in the spring forecasts while the forecast for next year has deteriorated slightly (0.1 pp).

Figure 5: comparison of autumn and spring 2017 GG deficit forecast, per cent of GDP



Source: Department of Finance

Chapter 5
General Government Debt

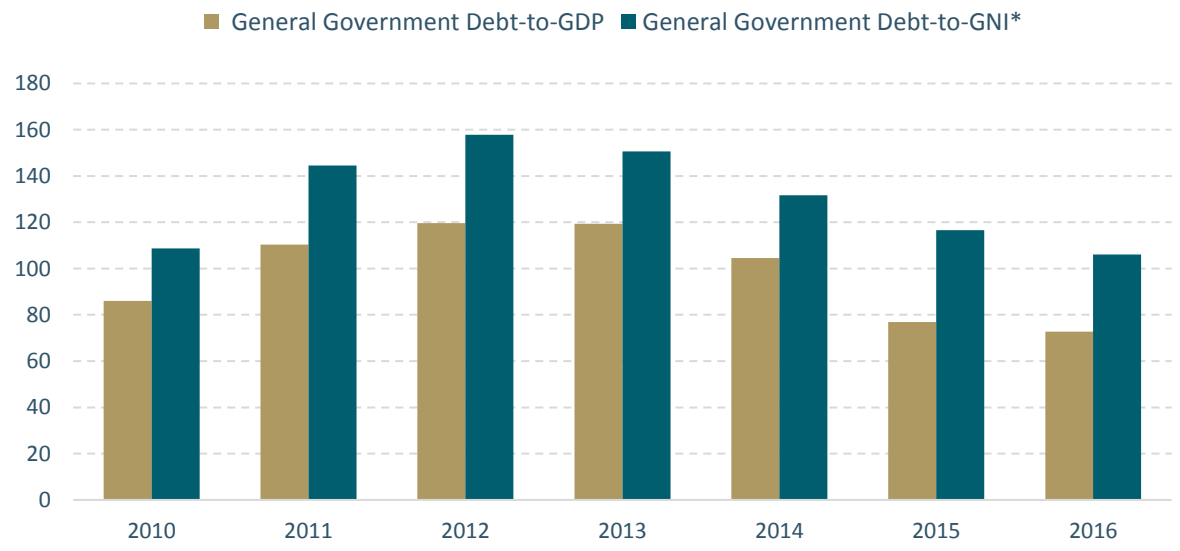
5.1 Summary

The debt-to-GDP ratio continues to decline. Maintaining the debt ratio on a downward trajectory is crucial for continued, and sustainable, economic progress, as well as for achieving the debt target set by the *Stability and Growth Pact*. Other sustainability metrics show that, although declining, public indebtedness remains high in Ireland; these metrics include the absolute level of debt and debt interest payments as a share of revenue.

5.2 Debt Developments

At end-2016, Ireland's general government gross debt stood at just over €200 billion, or 72.8 per cent of GDP. The ratio is comfortably below the euro area average of 89.2 per cent. By end-2017, while the absolute level of debt is expected to increase slightly compared to previous year-end, the ratio is set to decline further to 70.1 per cent. The ratio has fallen considerably since the peak of just below 120 per cent in 2012, particularly so in 2015. Ireland is on track to bring the debt-to-GDP ratio below 60 per cent – as required by the *Stability and Growth Pact* – in the early part of the next decade.

Figure 6: general government debt-to-GDP and debt-to-GNI*, per cent



Source: Department of Finance, CSO

While the debt-to-GDP ratio is compiled in line with international standards, the information content in key macro-economic aggregates – particularly for GDP and GNP – is less relevant for Ireland than for elsewhere[7]. This reflects the increasing impact of globalisation on the Irish economy. The CSO has compiled a new metric to size the Irish economy, known as modified GNI (or GNI* - see footnote 1). The ratio of public debt-to-GNI* peaked at almost 160 per cent in 2012 and was an estimated 106 per cent at the end of last year. Strong economic growth and declining public sector deficits have been

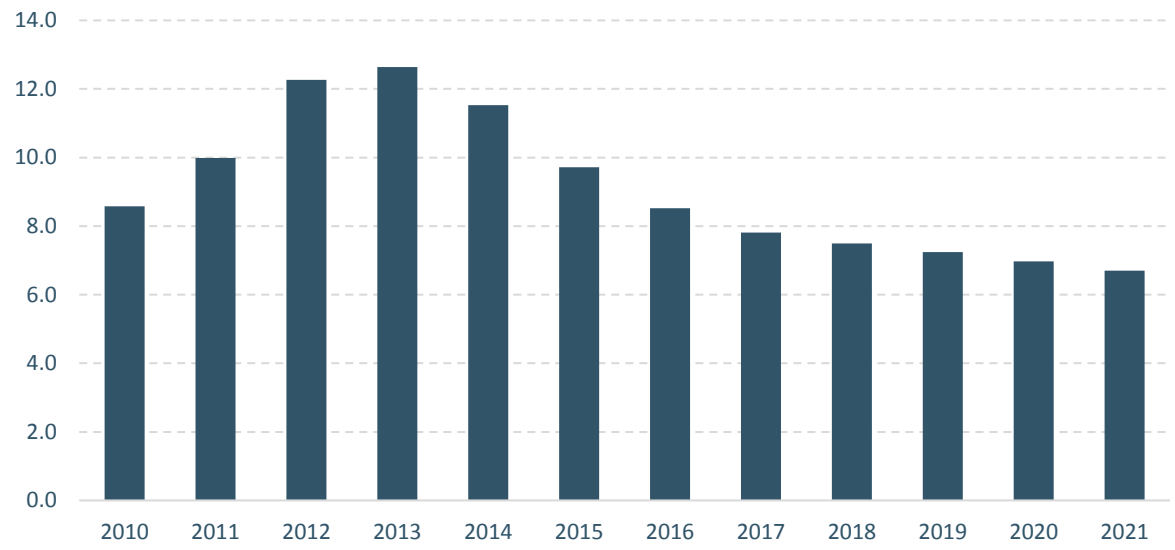
[7] A fuller assessment of debt dynamics is set out in the Department's *Annual Report on Public Debt in Ireland, June 2017* available at http://www.finance.gov.ie/wp-content/uploads/2017/07/annual-debt-report-2017.pdf

the main factors behind the decline in the debt-to-GNI* ratio in recent years and at end-2016 it was 10.6 percentage points lower than at end-2015, at 116.6 per cent.

Alternatively, debt interest payments as a percentage of total general government revenue are a useful means of assessing debt sustainability. This metric 'neutralises' the impact of strong nominal GDP growth in the assessment of debt dynamics (figure 7). In 2013, debt interest payments absorbed nearly 13 per cent of total revenue. While this figure has fallen subsequently – and is currently around 8 per cent – it is still relatively high and demonstrates the importance of reducing public debt. Similarly, the absolute level of debt as a share of revenue remains high, nonetheless, it too is on a downward trajectory.

Reflecting the need to boost potential output through increasing expenditure on capital formation, the Government has revised its medium term debt ratio target from 45 to 55 per cent of GDP. Thereafter, once the major capital projects have been completed, the Government will target a further reduction in the debt ratio to 45 per cent of GDP.

Figure 7: debt interest to revenue ratio, per cent



Source: Department of Finance, CSO

While it is important to analyse debt dynamics using a wider set of variables, legal obligations – as set out in the *Stability and Growth Pact* – are set with reference to movements in the debt-to-GDP ratio. In this regard, aided by a primary budget surplus forecast at 1.7 per cent of GDP, the forecast year-end 2017 debt-to-GDP ratio, at 70.1 per cent, is just under 3 percentage points lower than the 2016 year-end figure, 72.8 per cent of GDP. It is also lower than projected in April's *Stability Programme Update* reflecting a combination of the carry-over effect of higher nominal GDP in 2016 and a lower than previously expected absolute level of debt at end-2017. The forecast movement in debt levels and debt dynamics are set out in Table 15.

Table 15: general government debt developments, per cent of GDP (unless stated)

	2016	2017	2018	2019	2020	2021
Gross Debt (€ billions)	200.6	202.6	208.2	211.5	208.2	209.0
Gross debt ratio	72.8	70.1	69.0	67.1	63.5	61.2
Change in gross debt ratio(=1+2+3)	-4.1	-2.7	-1.1	-1.8	-3.6	-2.3
Contributions to change in gross debt ratio:*						
General Government deficit (1=1a+1b)	0.7	0.3	0.2	0.1	-0.3	-0.8
:interest expenditure (1a)	2.2	2.0	1.9	1.8	1.6	1.5
:primary balance (1b)	-1.6	-1.7	-1.7	-1.7	-1.9	-2.3
Stock-flow adjustment (2=2a+2b+2c+2d+2e+2f+2g)	-0.9	0.4	1.7	0.9	-0.7	1.1
:change in liquid assets (2a)	-1.8	0.3	1.1	0.1	-1.7	0.2
:interest adjustments (2b)	0.2	0.1	0.1	0.1	0.1	0.0
:equity transactions (2c)	-0.9	-1.6	-0.3	-0.4	-0.3	-0.3
:accrual adjustments (2d)	0.1	0.2	0.2	0.2	0.2	0.2
:impact of ISIF (2e)	0.1	0.1	0.1	0.1	0.1	0.1
:collateral held (2f)	-0.1	-0.1	0.0	0.0	0.0	0.0
:other (2g)	1.5	1.3	0.5	0.8	1.0	0.9
Nominal GDP contribution (3)	-3.8	-3.4	-3.0	-2.9	-2.6	-2.5
Memorandum item: average interest rate	3.1	2.9	2.8	2.7	2.5	2.4

Figures may not sum due to rounding.
* A positive sign indicates that a component is increasing the debt ratio and vice versa
Sources: CSO, Department of Finance and NTMA (National Debt data provider).

General government debt, as defined under the Excessive Deficit procedure (EDP) regulation, is a gross measure of government liabilities. Net general government debt (obtained by deducing the value of the financial assets corresponding to the categories of financial liabilities which comprise Gross Debt) is reported in table 16. The assets deducted include: Exchequer cash and other assets, Ireland Strategic Investment Fund (ISIF) cash and non-equity investments and other cash and assets held by general government.

Table 16: gross and net general government debt, per cent of GDP at end-year

	2017	2018	2019	2020	2021
General government debt (gross)	70.1	69.0	67.1	63.5	61.2
EDP debt instrument assets	8.9	9.3	9.4	6.9	6.6
Net debt position	61.2	59.6	57.7	56.6	54.6

Source: CSO and Department of Finance.

Ireland has regained its 'A' category credit rating with all of the main rating agencies. In September of this year, Moody's upgraded Ireland's sovereign credit rating to A2 with a stable outlook, citing continued strong economic growth and improved public finances, with the budget deficit approaching balance and public debt on a downward trend. The current ratings with the three main rating agencies are outlined in Table 17 below.

Table 17: credit ratings

Rating Agency	Long-term rating	Short-term rating	Outlook
Standard & Poor	A+	A-1	Stable
Moody's	A2	P-1	Stable
Fitch	A	F1	Stable

As at mid-October 2017.
Source: institutions cited and NTMA.

5.3 Funding Developments

The NTMA has to date in 2017 issued close to €15 billion in new benchmark bond funding. This is in excess of its original plan to issue €9 - €13 billion; the additional issuance being linked to the planned early repayment of €5.5 billion in EU-IMF Programme loans from the IMF, Sweden and Denmark. These early repayments require agreement from the European lenders to waive the proportionate early repayment clauses in the respective loan agreements as well as parliamentary approvals processes in some Member States.

The benchmark bond funding year-to-date has been completed at a weighted average yield of 0.9 per cent and a weighted average maturity of just over 12 years.

It included the issue of two new benchmark bonds – a 20-year bond maturing in 2037 issued in January, and the more recent 5-year bond maturing in 2022 which was issued at a negative yield of -0.008 per cent.

There have also been six separate dual bond auctions; the NTMA issuing across the curve with maturities ranging from the March 2022 bond to the 2045 bond.

These transactions help to improve debt sustainability by locking in low interest rates and longer maturities.

The NTMA also issued Ireland's first ever inflation linked bond earlier this year, raising just over €600 million. The interest payments and principal repayment are linked to the Eurostat Harmonised Index of Consumer Prices (HICP) for Ireland, excluding tobacco. The bond matures in 2040.

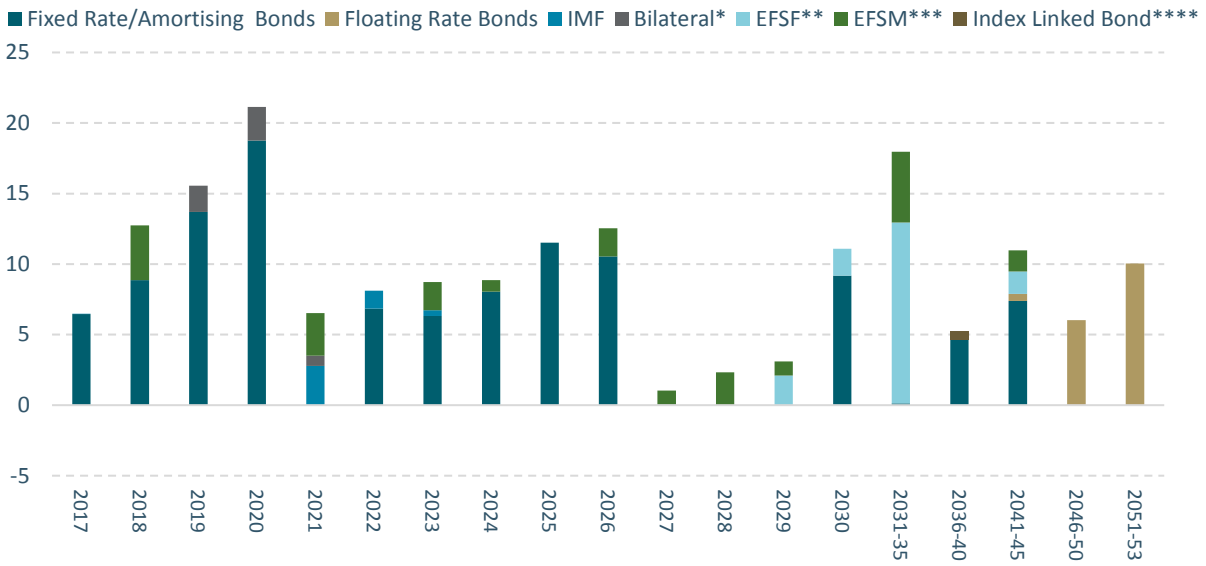
Irish government bond yields remain low, reflecting the State's continuing strong economic and fiscal performance but also the ongoing ECB bond purchasing under its Quantitative Easing programme.

At end-September, Exchequer cash and liquid assets stood at €21 billion but will reduce over the final quarter of the year, in part to finance the October 2017 bond maturity of €6.2 billion. The NTMA expects to hold cash and liquid asset balances of approximately €9 billion at year-end.

Turning to 2018, there is a €2.3 billion EBR and an October bond maturity of €8.8 billion to fund. Looking further ahead, four separate Government bonds mature over the years 2019 and 2020. The aggregate outstanding balance on these bonds now stands at €32.5 billion, having been reduced by some €1.35 billion over the last 12 months through bilateral bond switching.

Figure 8 below shows the maturity profile of Ireland's long-term marketable and official debt – that is Government bonds and EU/IMF Programme loans – as at end-September 2017. It reflects the current contractual maturity dates of the residual IMF loan balance (2021-2023) as well as Swedish and Danish bilateral loans (2019-2021). However, it is expected that these loans will be fully repaid by year-end 2017.

Figure 8: maturity profile of long-term marketable and official debt, € billion at end-September



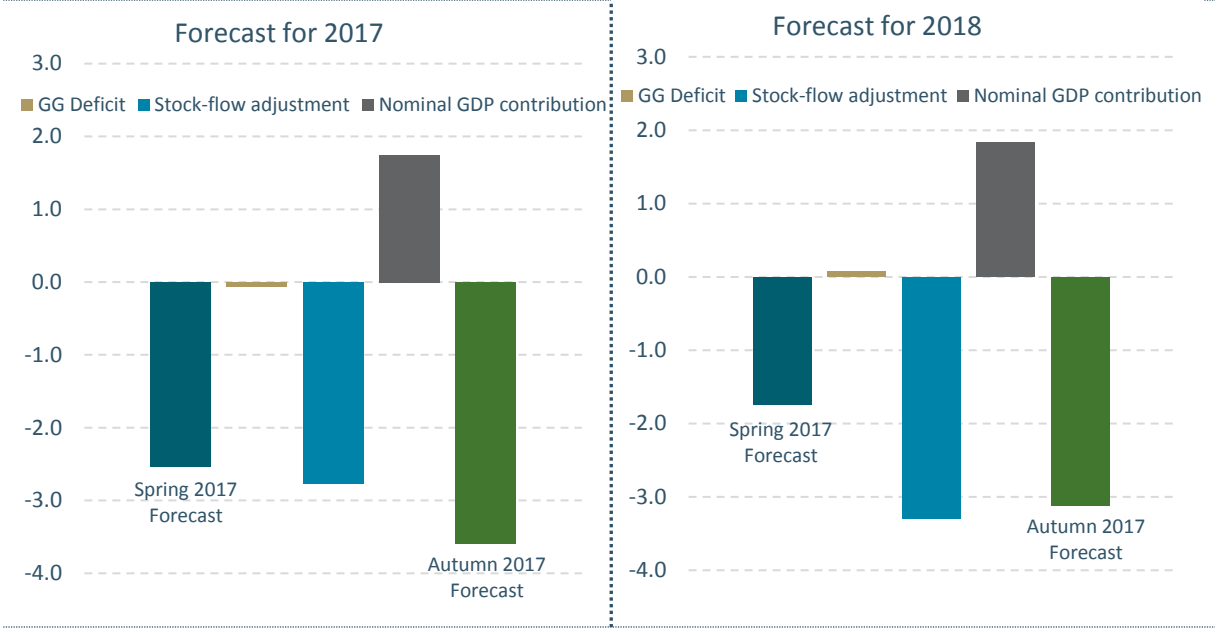
*Bilateral loans were provided by the United Kingdom, Sweden and Denmark.
**EFSF loans reflect the maturity extensions agreed in June 2013.
***EFSM loans are also subject to a seven year extension. It is not expected that Ireland will have to refinance any of its EFSM loans before 2027. However the revised maturity dates of individual EFSM loans will only be determined as they approach their original maturity dates. The graph reflects both original and revised maturity dates of individual EFSM loans.
**** While the principal repayment will be linked to the Eurostat Harmonised Index of Consumer Prices (HICP) for Ireland, excluding tobacco, it is protected against a fall in the index over the life of the bond.
Source: NTMA.

5.4 Comparison of Forecasts

The range of forecasts for general government debt is set out in table 15 and annex table A5.

Figure 9 below compares the Department's autumn forecasts for general government debt with its spring forecasts published in the SPU at end-April. The improvement in the forecast debt to GDP ratio for end-2017 compared with that from the SPU is 2.8 percentage points. This improvement is chiefly driven by a reduction in the nominal debt forecast, from €204.6 billion to €202.6 billion, and the denominator effect.

Figure 9: comparison of autumn and spring 2017 GG debt forecast, per cent of GDP



Source: Department of Finance

Chapter 6
Risks and Sensitivity Analysis

6.1 Summary

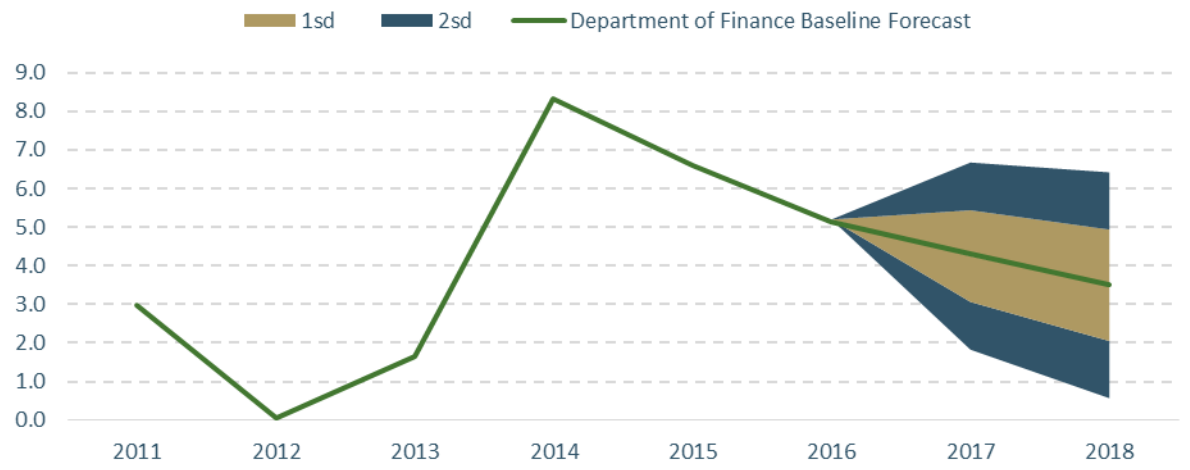
The forecast GDP growth of 3.5 per cent for next year represents a central scenario. It is a contingent forecast and is based on assumptions about key inputs such as demand in major export markets, exchange rate developments etc. The purpose of this chapter is to set out the main identifiable risks which, if they were to materialise, could alter the economic and fiscal trajectory in Ireland over the short- and medium-term.[8] Quantitative estimates of the impact of particular shocks on the Irish economy and on the public finances are also provided, prepared using the ESRI's COSMO[9] model.

6.2 Risks to the Economic and Fiscal Forecasts

Uncertainties surrounding the international economic outlook have declined somewhat over recent months in line with receding political risks and strengthening momentum in the global, and particularly the euro area, economy. However, the sharp appreciation of the euro, if sustained, will undermine Irish competitiveness and has the potential to de-rail the recovery in certain sectors and regions.

Having been tilted to the downside in the spring set of forecasts, short-term risks now appear broadly balanced, with both upside and downside risks.

Figure 10: Fan chart of Real GDP, per cent change



sd = standard deviation.
Note: The growth rate for 2015 is based on modified total domestic demand
Source: Department of Finance calculations.

A risk assessment matrix – listing the principal identifiable economic risks along with an assessment of their relative likelihood and economic impact – is set out in table 20. The main short-term risks relate to trading partner growth and euro-sterling bilateral exchange rate movements. Over the medium term, the principal risks relate to competitiveness, potential overheating as the economy

[8] The National Risk Assessment 2017, which was published in August, represents a comprehensive cross-government assessment of the strategic risks that Ireland faces over the short, medium and long-term.
[9] **Co**re **S**tructural **Mo**del.

approaches full employment, the concentrated nature of Ireland's production base, and a more adverse than expected outcome of the Brexit discussions currently under way.

6.3 Sensitivity Analysis

In order to assess the vulnerability of the Irish economy to changes in the baseline inputs, results of two simulations using the new ESRI COSMO macroeconomic model are reported in table 18 below. These are:

- A 1 percent deterioration in world demand; and
- A 1 percentage point increase in the ECB interest rate.

The table below presents for each simulation, the evolution of key macro - economic and fiscal aggregates relative to the baseline projection. The model's baseline outlines the path the economy would take in the absence of the shock. In each case the 'shock' is assumed to occur in year *t.*

Table 18: sensitivity analysis, relative to baseline

	T	T+1	T+2	T+3	T+4	T+5
			1 per cent decrease in world demand			
per cent deviation from baseline						
GDP	-0.3	-0.5	-0.7	-0.9	-1.0	-1.1
Employment	-0.1	-0.2	-0.3	-0.5	-0.6	-0.7
percentage point deviation from baseline						
General Government Balance, per cent GDP	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
General Government Gross Debt, per cent GDP	0.1	0.4	0.6	0.8	1.1	1.3
Unemployment Rate, per cent	0.0	0.1	0.2	0.3	0.4	0.4
			1 percentage point increase in interest rates			
per cent deviation from baseline						
GDP	-0.5	-1.1	-1.3	-1.3	-1.2	-1.0
Employment	-0.1	-0.4	-0.7	-0.9	-0.9	-0.7
percentage point deviation from baseline						
General Government Balance, per cent GDP	0.0	-0.2	-0.3	-0.3	-0.3	-0.3
General Government Gross Debt, per cent GDP	0.3	0.9	1.5	1.9	2.2	2.3
Unemployment Rate, per cent	0.1	0.3	0.5	0.6	0.6	0.5

Source: Results based on analysis by Department of Finance using COSMO, the ESRI macro-economic model

In the world demand shock, a permanent reduction in the level of global output by 1 percent dampens Irish growth with impacts transmitted primarily through the trade channel. In the traded sector, a decrease in external demand pushes down Irish exports and production, leading to a fall in investment, employment and wages in that sector. This leads to lower overall domestic demand, with less employment and wages in the rest of the economy, which in turn contributes to a rise in the unemployment rate. The impact of a reduction in employment and lower wages also lead to decrease in personal incomes and a decrease in consumption, which in turn negatively affect the tax base.

Overall, the level of output would be 1.1 percent lower after 5 years relative to a baseline projection. The level of employment would be 0.7 percent lower after 5 years, with the unemployment rate increasing by 0.4 percentage points. The deficit to GDP ratio worsens by 0.2 percentage points with the debt to GDP ratio rising by 1.3 percentage points.

The impact of a change in policy interest rates is also presented. The shock is simulated as a one percentage point increase in the main ECB rate over 5 years. Higher policy rates affect external demand for Irish exports. This is principally driven by output in the euro area being reduced below the baseline level, and a strengthening of the euro relative to the baseline which has a negative competitiveness effect on Ireland. Overall this scenario results in the level of GDP being 1.0 percent below baseline, with employment falling by 0.7 percent after 5 years. The deficit to GDP ratio worsens by 0.3 percentage points, with the debt to GDP ratio rising by 2.3 percentage points after 5 years.

6.4 Contingent and other liabilities

A contingent liability arises in a situation where past or current actions or events create the risk of a call on the Exchequer funds in the future. The 2016 Appropriation Accounts for the year ended 31 December 2016[10] were published in September. While the amounts are not all quantifiable, notes on the contingent liabilities are listed in the Appropriation Accounts of the various votes.

The Other[14] category in Table 19 relates to entities such as CIE, Insurance Acts, Housing Finance Agency and the Credit Guarantee Act. Additional details on most of these can be accessed in the 2016 Finance Accounts (Statement 1.11).

Table 19: Contingent Liabilities, per cent of GDP at end-year

	2014	2015	2016
Public guarantees	12.9	4.8	1.9
of which linked to the financial sector			
Eligible Liabilities Guarantee	5.3	1.2	0.5
National Asset Management Agency	7.0	3.1	0.9
Other	0.7	0.5	0.5

Note: Rounding may affect totals.
Source: Department of Finance, CSO.

In February and April this year, the National Asset Management Agency (NAMA) announced two separate redemptions of Senior Notes of €1.09 billion and €952 million respectively (amounting to a cumulative redemption of €2.04 billion in the year-to-date). This brings the total amount of NAMA Senior Debt that has been redeemed to €29.7 billion, or 98 per cent, of the €30.2 billion senior debt issued over 2010 and 2011. Consequently, NAMA's senior debt stands at €500 million or less than 2 per cent of its original amount.

The State has certain other long-term future payment liabilities which are contractually conditional on the continued availability to the State of public infrastructure provided under public private partnerships (PPPs). PPPs involve contractual arrangements between the public and private sectors for the purpose of delivering infrastructure or services which were traditionally provided by public sector procurement. Under PPPs, infrastructure is delivered by a private sector firm and the asset is made available for public use, paid for by the State by way of an annual unitary payment over the period of the contract (typically 20-25 years).

The Department of Public Expenditure and Reform publishes information on the PPP[11] programme including the level of estimated outstanding future financial commitments in nominal terms arising

[10] http://audgen.gov.ie/documents/annualreports/2015/appacc/en/appaccs2015.pdf
[11] www.ppp.gov.ie

under existing PPP contracts. The calculation of the contractual capital value of all Irish PPPs as at 31st December 2016 is €0.5 billion on the government balance sheet, and €5.1 billion off-balance sheet amounting to a total of €5.6 billion.

The Department of Public Expenditure and Reform measures the accrued liability of the occupational pension promises that the State has made to its serving and former employees. The most recent estimate was completed in 2014 using 2012 data and concluded that the value of accrued public service pension obligations were valued at €98 billion. An actuarial review of the accrued liability is being carried out at present by the Department of Public Expenditure and Reform for completion before the end of 2017.[12]

The separate obligation for the contributory and non-contributory old age State pension is assessed as part of the actuarial reviews of the Social Insurance Fund (SIF) which are carried out at 5 yearly intervals. An actuarial review of the SIF is being carried out over 2017.

Ireland also has a commitment to provide capital to the various international organisations of which it claims membership. This can take the form either of paid-in capital or callable capital. Paid-in capital is funding which has already been contributed to organisations, whereas callable capital is funding which may be called on only as and when required by the organisations[13]. The most significant of these contingent or potential liabilities is Ireland's callable commitment of approximately €9.87 billion to the European Stability Mechanism.

[12] www.per.gov.ie/en/public-service-pensions-accrued-liability/

[13] http://opac.oireachtas.ie/AWData/Library3/FINdoclaid260717_112531.pdf

Table 20: Macro-economic Risk Assessment Matrix

Risk	Likelihood	Impact and main transmission channel
External		
External demand shock	**Medium**	**High** – while global growth is proving more durable than expected, it remains subject to downside risk over the medium term.
Geopolitical factors	**Medium**	**High** – increased geopolitical uncertainty has the potential to disrupt growth in key regions and generate headwinds for output and employment in Ireland.
De-globalisation	**Low**	**High** – the Irish economy is deeply embedded in the global economy and has benefitted enormously from globalisation, so that any increase in protectionism could potentially have a detrimental impact on living standards.
Policy uncertainty in the US	**Medium**	**Medium** – there is continuing uncertainty around the likely policy stance in the US, including in relation to taxation policy.
Exchange rate re-alignment	**High**	**High –** The recent appreciation of the euro-sterling exchange rate will, if sustained, pose significant challenges for Irish exports to the UK (especially for more 'traditional' sectors).
Global financial market conditions	**Medium**	**Medium –** the stance of monetary policy may become less accommodative in advanced economies and the 'normalisation' process for the global financial system may not be smooth, with implications for the cost of capital.
"Hard-Brexit"	**Medium**	**High –** Notwithstanding the start of EU-UK negotiations, an outcome which resulted in a WTO-type arrangement between the EU and UK would have a particularly detrimental impact on Irish-UK trade.
Domestic		
Concentrated production base	**Low**	**High** – Ireland's production base is highly concentrated in a small number of high-tech sectors, with the result that output and employment are exposed to firm- and sector-specific shocks.
Loss of competitiveness	**Medium**	**High** – as a small and open economy, Ireland's business model is very much geared towards export-led growth, which, in turn, is sensitive to the evolution of cost competitiveness.
Housing supply pressures	**High**	**Medium** – supply constraints in the housing sector can adversely impact on competitiveness by inter alia restricting the mobility of labour.
Overheating economy	**Medium**	**Medium** – With the labour market approaching full employment, stronger than assumed growth could lead to overheating pressures.

Source: Department of Finance

Table 21: Fiscal Risk Assessment Matrix

Risk	Likelihood	Impact and main transmission channel
Domestic		
Budgetary pressures	**Medium**	**High** – potential downside risk arising from excessive public expectations regarding budgetary policy. Indeed, significant outlays are needed simply to address changes in the structure of the population.
Tax forecast and payment timeline asymmetry	**Medium**	**Medium** – the asymmetry between the 'two pack' requirement for an October budget and the distribution of certain receipts (self-employed and corporation tax) towards end-year increases risks to the forecast.
Corporation tax concentration risks	**High**	**Medium** – corporation tax revenue has increased significantly in recent years and the 'Top 10' payers contribute just under 40 per cent of this tax, leaving this component of the public finances exposed to idiosyncratic shocks creating a concentration risk.
Dividend payments	**Low**	**Medium** – lower-than-expected dividend payment arising from the State's shareholdings in banks or commercial semi-state companies.
Receipts from resolution of financial sector crisis	**Low**	**Medium** – budgetary projections prudently exclude any assumptions around the States disposal of shareholding in a number of financial institutions. Also receipts from the termination of NAMA or wind-up of the Credit Union Restructuring Board are excluded *inter alia* due to uncertainty regarding timing. All of these represent a likely upside risk to the baseline scenario
EU Budget Contributions	**Medium**	**Medium** – stronger-than-expected growth in national income (or statistical changes) can increase the Irish contribution to the EU budget, while short term there is no clarity on how the UK's exit will impact upon the EU Budget.
Contingent liabilities	**Low**	**Medium** – contingent liabilities continue to decline although the public finances would be adversely affected in the event these liabilities were 'called' (table 19 provides more detail)**.**
External		
Bond market conditions	**Low**	**Medium** – government financing has benefitted from supportive bond market conditions. Any change this environment could lead to an unanticipated rise in debt interest costs. However, as the bulk of outstanding public debt is at fixed rates, this helps to mitigate this risk.
Changes to tax 'drivers'	**Medium**	**Medium** – macroeconomic 'drivers' are used to forecast taxation receipt and changes in the composition of economic activity can impact upon the public finances.
EU climate change targets	**High**	**High** – Ireland is obliged to reduce greenhouse gas emissions by 20% on 2005 levels by 2020. EPA projections indicate that this target will not be met without the purchase of additional emissions allowances. Proposals for Ireland's non-ETS targets for 2021-2030 will require significant additional reductions in these gas emissions.
EU renewable energy targets	**High**	Ireland has a 2020 binding target of 16% of all energy to be from renewable energy sources. Latest SEAI projections show Ireland falling short of this by some 2 or 3 percentage points. Ireland's contribution to the overall EU 2030 renewable energy target is currently under negotiation.
Litigation Risk	**Medium**	**Medium**. An adverse or unexpected outcome of litigation against the State which resulted in additional expenditure over and above that provided could pose a risk to the achievement of budgetary targets.

Source: Department of Finance

Chapter 7
Budgetary Reform

7.1 Summary

This chapter briefly outlines the main reforms to the budgetary process that are currently underway. These reforms complement the substantial reforms that have taken place in recent years.

7.2 Forthcoming reform of the local government fund

The Local Government Fund (LGF) was established under the *Local Government Act 1998* (the Act) to fund local authorities. To provision the LGF, the Act provided for the hypothecation of motor taxation revenue to the LGF. The LGF has historically provided local authorities with funding to meet some of their day-to-day activities, including for the part provision of water services (through General Purpose Grant (GPG) allocations), for roads and other public transport infrastructure and for certain other local government initiatives.

When *Irish Water* was established, the Government decided that the water-related elements of GPG's should continue to contribute to the water services costs previously met by local authorities and, consequently, the LGF provide a subvention to *Irish Water*.

Other notable developments included:

- Increases in motor taxation to assist with deficit reduction. This meant this money had to be remitted to the Exchequer from the LGF, which required annual primary legislation.
- Local Property Tax (LPT) was introduced and, from 2014 onwards, the Minister for Finance transferred an amount equivalent to the amount of LPT collected in each year to the LGF. In turn, it was intended that the LGF would remit the equivalent amount back from its motor taxation receipts, again requiring primary legislation.

As a result of the above, the Act has to be amended each year to provide for an amount of money that the Minister for Finance could request to be paid to the Central Fund by the end of the relevant year. However, as a result of various decisions on funding *inter alia* for *Irish Water*, the amount returned to the Central Fund is now less than the LPT remitted (in 2017 the Minister for Finance will remit some €470m of LPT to the LGF and will request the return of €230m).

The Government's implementation of reforms recommended by the *Joint Oireachtas Committee on the Future Funding of Domestic Water Services* means that Irish Water's current and capital requirements for domestic services will be funded from the Vote of the Department of Housing, Planning and Local Government (DHPLG) with effect from 1 January 2018. For non-domestic water services, expenditure (both current and capital) will be funded by the non-domestic charges and borrowing, with the loans serviced by the non-domestic charges revenue as well. A key benefit of ensuring that domestic water services are funded from general taxation will be that Government support for *Irish Water* will be more visible and Dáil Éireann will have direct oversight of funding for a vital national service.

Accordingly, the subvention for Irish Water will no longer be paid from the LGF and a number of consequential changes are being made.

In particular, the *Water Services Bill 2017* (the Bill) provides that:

- LPT will be paid directly to the LGF by the Revenue Commissioners rather than passing through the Exchequer; and,
- Motor taxation revenue will be paid into the Exchequer (with the Department of Transport, Tourism and Sport taking over DHPLG's functions in relation to the collection of motor tax).

The allocation to the Department of Transport, Tourism and Sport (DTTaS) will be funded directly through the DTTaS Vote instead of being transferred to it as an appropriation-in-aid from the LGF.

As a result of the above changes, the LGF will revert to being much closer to its original purpose of funding local government.

Once the Bill becomes law, this will necessitate various changes (neutral in general government terms), which will be incorporated in the Revised Estimates Volume. The changes will also change the definition of what constitutes of 'Exchequer' tax revenue, which will necessitate a revised Exchequer tax forecast once the REV is published – it is stressed, however, that any such change is, by definition, neutral in general government terms (in particular, forecast motor taxation revenue of €982 million in 2018 will be remitted to the Central Fund and forecast LPT of €470 million will be remitted directly to the LGF instead of passing through the Exchequer). Accordingly, the tax forecast for 2018 will be restated at the time of the REV from €53.7 billion in table 8 to €54.2 billion. The outer years will be restated in the 2018 Stability Programme Update.

Annex 1
Irish Fiscal Advisory Council's Endorsement of the Macroeconomic Forecast

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Cearnóg Whitaker
Cé Sir John Rogerson
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29 September 2017

Dear Secretary General Moran,

The Council has an obligation under the Fiscal Responsibility Act to endorse, as appropriate, the macroeconomic forecasts prepared by the Department of Finance on which *Budget 2018* will be based.[1] The *Budget 2018* forecasts were provided to the Council on 21 September 2017 and discussed by the Council with Department of Finance staff on 29 September 2017.

The Irish Fiscal Advisory Council endorses as within the range of appropriate forecasts the set of macroeconomic projections prepared by the Department of Finance for *Budget 2018* for the years 2017 and 2018.

The Council is satisfied that the forecasts are within an endorsable range. The Council's approach to endorsement of the macroeconomic forecasts has three elements: a comparison of the Department of Finance's macroeconomic forecasts to IFAC's Benchmark forecasts; consideration of the methodology used to produce the forecasts; and a review of past forecast errors for evidence of systematic bias.

The Department's supply-side estimates are currently produced in line with the EU Commonly Agreed Methodology (CAM). The mechanical application of this methodology to estimate trend supply-side variables in *Budget 2018* has been verified. Given that the CAM is not well equipped to estimate the supply side of the Irish economy, it is essential that the Department's macroeconomic forecasts for the medium term should be well-founded to provide a sound basis for setting the economy and the public finances on a sustainable path. A detailed discussion of the endorsement process and an assessment of the macroeconomic projections will be provided in the Council's forthcoming *Fiscal Assessment Report*, which is scheduled for publication in November.

Yours sincerely,

Seamus Coffey

Seamus Coffey, Chair.

[1] The Fiscal Responsibility Act 2012, as amended by the Ministers and Secretaries (Amendment) Act 2013, states that: "The Fiscal Council shall— (a) endorse, as it considers appropriate, the macroeconomic forecasts prepared by the Department of Finance on which the Budget and stability programme will be based".

IFAC-endorsed and final macroeconomic forecasts

The following tables set out the forecast which have been endorsed by the IFAC and the final forecasts which underpin the Budget.

Both endorsed and final forecasts are based on external assumptions which were finalised in mid-September. Both sets of forecasts also incorporate a Budget package of approximately €1.5 billion in 2018, as set out in the Summer Economic Statement. Differences between the two sets of projections are very minor and relate to the impact of Budget 2018 revenue raising measures which were only finalised after the endorsement decision.

A reconciliation between the final and endorsed forecasts is included in the tables below (forecasts covering the period 2019-2021 are not subject to endorsement by IFAC).

Table 22: Macroeconomic developments, per cent change (unless stated)

	2017 *final*	**2018** *final*	**2018** *endorsed*	**Difference (pp)**
Real GDP	4.3	3.5	3.5	-
Nominal GDP	4.9	4.4	4.4	-
Components of real GDP				
Personal consumption	2.3	2.3	2.3	-
Government consumption	2.0	2.0	2.0	-
Gross fixed capital formation	-3.7	6.1	6.1	-
Stock changes (per cent of GDP)	0.2	0.3	0.3	-
Exports of goods and services	3.5	4.8	4.8	-
Imports of goods and services	-1.0	5.5	5.5	-

Source: Department of Finance forecasts.

Table 23: Price developments, per cent change

	2017 *final*	**2018** *final*	**2018** *endorsed*	**Difference (pp)**
GDP deflator	0.5	0.9	0.8	+0.1
Personal consumption deflator	1.2	1.7	1.6	+0.1
HICP	0.2	0.8	0.7	+0.1
Export price deflator	0.3	-0.4	-0.4	-
Import price deflator	1.0	0.1	0.1	-

Source: Department of Finance forecasts.

Table 24: Labour market developments, per cent change (unless stated)

	2017 *final*	2018 *final*	2018 *endorsed*	Difference (pp)
Unemployment rate, per cent	6.3	5.7	5.7	-
Labour productivity, persons	1.5	1.2	1.2	-
Compensation of employees	5.6	5.6	5.6	
Compensation per employee	2.8	3.1	3.1	-
Employment, persons	2,076	2,125	2,125	-

Source: Department of Finance forecasts.

Table 25: Sectoral balances, per cent of GDP

	2017 *final*	2018 *final*	2018 *endorsed*	Difference (pp)
Current account	3.0	2.0	2.0	-

Source: Department of Finance forecasts.

Annex 2
Additional Fiscal Statistics and Tables

Table A1: Difference between Exchequer balance and general government balance, € millions (unless stated)

	2016	2017	2018	2019	2020	2021
Exchequer balance	-1,010	1,455	-2,275	-2,475	-2,065	-580
Exclude equity and loan transactions	-2,485	-4,650	-1,040	-1,225	-1,020	-940
Adjust for interest accrual	575	250	395	295	320	20
Adjust for tax accruals	100	425	375	370	330	315
Adjust for other accruals	260	205	280	230	225	215
Net lending/borrowing of non-commercial State bodies	-155	140	235	45	145	460
Impact of ISIF	200	320	280	280	280	280
Net Surplus of the Social Insurance Fund	370	815	1,150	1,610	2,075	2,545
Net Surplus of other EBF's	-20	45	65	35	30	45
Net (Borrowing)/Surplus of Local Government	265	0	0	0	0	0
Rainy Day Fund	0	0	0	500	500	500
General government balance	-1,905	-995	-540	-330	820	2,865
Financial sector measures	15	0	0	0	0	0
Underlying balance	-1,890	-995	-540	-330	820	2,865
General government balance as per cent of GDP	-0.7	-0.3	-0.2	-0.1	0.3	0.8
Underlying balance as per cent of GDP	-0.7	-0.3	-0.2	-0.1	0.3	0.8

Note: Rounding may affect totals.
For more detailed information see footnotes in 2017 Stability Programme Update.
Source: Department of Finance, Department of Public Expenditure and Reform, Central Statistics Office (CSO) and National Treasury Management Agency (NTMA) estimates.

Table A2: General government balance 2016-2021, per cent of GDP (unless stated)

	2016	2017	2018	2019	2020	2021
Net lending by sub-sector						
General government balance	**-0.7**	**-0.3**	**-0.2**	**-0.1**	**0.3**	**0.8**
p.m.: Underlying balance	-0.7	-0.3	-0.2	-0.1	0.3	0.8
Central government	-0.8	-0.3	-0.2	-0.1	0.3	0.8
State government	N/A	N/A	N/A	N/A	N/A	N/A
Local government	0.1	0.0	0.0	0.0	0.0	0.0
Social security funds	N/A	N/A	N/A	N/A	N/A	N/A
General government						
Total Revenue	26.4	26.1	26.1	25.9	25.8	25.9
Total Expenditure	27.1	26.4	26.3	26.0	25.6	25.0
Net lending/borrowing	**-0.7**	**-0.3**	**-0.2**	**-0.1**	**0.3**	**0.8**
Interest expenditure	2.2	2.0	1.9	1.8	1.6	1.5
Primary balance	1.6	1.7	1.7	1.7	1.9	2.3
One-off and other temporary measures	0.1	-0.1	0.0	0.0	0.0	0.0
Selected components of revenue						
Total taxes	19.2	19.4	19.5	19.5	19.5	19.6
Taxes on production and imports	8.5	8.5	8.5	8.6	8.5	8.5
Current taxes on income, wealth etc.	10.6	10.8	10.9	10.8	10.9	11.0
Capital taxes	0.1	0.1	0.1	0.1	0.1	0.1
Social contributions	4.4	4.4	4.4	4.3	4.3	4.3
Property Income	0.7	0.6	0.4	0.3	0.2	0.2
Other	2.1	1.7	1.8	1.8	1.7	1.7
Total revenue	**26.4**	**26.1**	**26.1**	**25.9**	**25.8**	**25.9**
p.m.: Tax burden	23.8	24.0	24.1	24.1	24.1	24.1
Selected Components of Expenditure						
Compensation of employees	7.0	7.1	7.0	6.9	6.8	6.7
Intermediate consumption	3.4	3.4	3.5	3.4	3.3	3.2
Social payments	10.3	10.0	9.6	9.3	9.1	8.9
Social transfers in kind supplied via market producers	2.1	1.9	1.9	1.8	1.7	1.7
Social transfers other than in kind	8.2	8.1	7.8	7.5	7.3	7.2
Interest expenditure	2.2	2.0	1.9	1.8	1.6	1.5
Subsidies	0.6	0.6	0.5	0.5	0.5	0.5
Gross fixed capital formation	1.8	1.8	2.0	2.3	2.4	2.3
Capital Transfers	0.5	0.4	0.4	0.5	0.4	0.4
Other	1.1	1.1	1.2	1.1	1.1	1.1
Resources to be allocated	0.0	0.0	0.0	0.2	0.4	0.6
Total expenditure	**27.1**	**26.4**	**26.3**	**26.0**	**25.6**	**25.0**
p.m. : Government consumption	12.2	12.3	11.9	11.5	11.0	10.7

Note: Rounding may affect totals.
Source: Department of Finance, Department of Public Expenditure and Reform, CSO and NTMA estimates.

Table A3: Comparison of Vintages of Receipts and Expenditures for 2017, € millions

	SPU 2017	Budget 2018	Total Δ	New Data Δ	Other Δ	notes
General Government Revenue						
Taxes on production and imports	24,815	24,615	-200	-200	0	1
Current taxes on income, wealth	30,825	31,080	255	255	0	1
Capital taxes	245	340	95	95	0	1
Social contributions	12,490	12,750	260	260	0	1
Property Income	1,605	1,640	35	35	0	1,2
Other	5,215	4,965	-250	-180	-70	1,3
Total revenue	75,195	75,395	200	270	-70	
General Government Expenditure						
Compensation of employees	20,295	20,435	140	140	0	1
Intermediate consumption	10,095	9,805	-290	-290	0	1
Social payments	28,840	28,825	-15	-15	0	1
Interest expenditure	6,025	5,895	-130	-130	0	1
Subsidies	1,585	1,740	155	155	0	1,4
Gross fixed capital formation	5,335	5,325	-10	-10	0	1
Capital transfers	1,050	1,110	60	60	0	1
Other	3,185	3,255	70	70	0	1
Total expenditure	76,410	76,385	-25	-25	0	
General government balance	-1,210	-995	215			

Note: Rounding may affect totals
1. Reflects more up to date information available since the 2017 SPU
2. Following updated guidance note published by Eurostat the CSO have amended the treatment of the sale of mobile telephony licences from sale of non-produced assets to payments for rent of natural resources by the relevant operators over the period of the licence.
3. Reduction in revenues as a result of abolition of domestic water charges
4. Refund of domestic water charges

Table A4: General Government interest expenditure 2016-2021, € millions (unless stated)

	2016	2017	2018	2019	2020	2021
National Debt Cash Interest	6,738.9	6,147.0	6,104.0	5,882.0	5,677.0	4,993.0
per cent tax revenue	14.1	12.1	11.4	10.4	9.6	8.1
per cent of GDP	2.4	2.1	2.0	1.9	1.7	1.5
National Debt Cash Interest Accruals	-295.9	-26.1	-192.9	-173.9	-258.7	-4.7
Consolidation and Grossing Adjustments	-44.5	-74.7	-79.0	-58.7	-16.6	8.4
Accrued promissory note interest	0.0	0.0	0.0	0.0	0.0	0.0
Other	-211.8	-150.9	-187.2	-89.5	-16.5	38.6
Total Interest on ESA2010 basis	6,186.7	5,895.3	5,644.9	5,559.9	5,385.2	5,035.3
per cent of total general government revenue	8.5	7.8	7.2	6.8	6.4	5.7
per cent of GDP	2.2	2.0	1.9	1.8	1.6	1.5

Note: Rounding may affect totals.
Sources: Department of Finance, CSO and NTMA.

Table A5: Projected movement in General Government Debt 2016-2021, € billions

	2016	2017	2018	2019	2020	2021
Opening general government debt	201.4	200.6	202.6	208.2	211.5	208.2
Exchequer borrowing requirement	1.0	-1.5	2.3	2.5	2.1	0.6
Change in Exchequer Deposits	-5.0	1.0	3.2	0.5	-5.7	0.7
Net lending of NCSSBs	1.0	0.1	-0.7	-0.1	-0.1	-1.0
Net lending of local government	0.1	0.0	0.0	0.0	0.0	0.0
Change in collateral held	-0.3	-0.3	-0.1	0.0	0.0	0.0
Other	2.4	2.7	0.8	0.5	0.5	0.5
Closing general government debt	200.6	202.6	208.2	211.5	208.2	209.0
General government debt to GDP ratio	72.8	70.1	69.0	67.1	63.5	61.2

As at mid-October 2017.
Source: Department of Finance, CSO and NTMA.

Table A6: Breakdown of revenue, per cent of GDP (unless stated)

	2016	2017	2018	2019	2020	2021
Total Revenue at Unchanged Policies[1]	26.7	26.1	25.7	25.9	25.8	25.9
Discretionary revenue[2]	-0.3	0.0	0.4	0.0	0.0	0.0

This only includes discretionary revenue measures (DRMs) that further modify the revenue forecasts. It does not include DRMs where these have already been included in the baseline forecasts.
Source: Department of Finance.

Table A7: Expenditure developments, per cent of GDP (unless stated)

	2016	2017	2018	2019	2020	2021
Expenditure on EU Programmes fully matched by revenue from EU funds	0.2	0.2	0.2	0.2	0.2	0.2
Expenditure fully matched by mandated revenue increases	0.0	0.0	0.0	0.0	0.0	0.0
Non-discretionary changes in unemployment benefit expenditure*	-0.1	-0.5	-0.4	-0.1	0.1	0.1

Note: Rounding may affect totals.
Source: Department of Finance, CSO and NTMA.

Table A8: Application of Expenditure Benchmark, € billions (unless stated)

	2016	2017	2018	2019	2020	2021
Fiscal Developments						
General Government Expenditure	74.6	76.4	79.3	81.9	84.0	85.5
Interest Expenditure	6.2	5.9	5.6	5.6	5.4	5.0
Expenditure co-financed by EU	0.4	0.5	0.6	0.6	0.7	0.7
Gross Fixed Capital Formation (GFCF)	4.9	5.3	6.2	7.4	7.7	7.9
Annual Average GFCF (t-3 to t)	4.2	4.7	5.2	5.9	6.6	7.3
Cyclical Unemployment Expenditure	-0.1	-0.5	-0.4	-0.1	0.1	0.1
Discretionary Revenue Measures (DRM)	-0.8	0.0	1.2	0.1	0.1	0.0
One-off Expenditure Measures (applies from 2017)	n/a	0.2	0.0	0.0	0.0	0.0
Corrected Expenditure Aggregate	67.4	69.9	72.4	74.4	76.7	79.1
Corrected Expenditure Aggregate net of DRMs	68.2	69.7	71.4	74.4	76.7	79.1
Macro-Economic Developments[1]						
Net Public Expenditure Annual Growth per cent	0.5	3.4	2.3	2.8	3.1	3.1
GDP Deflator (per cent change)	1.7	1.2	1.3	1.1	1.3	1.5
Expenditure Aggregate, Annual Growth in per cent (real)	-1.2	2.2	1.0	1.6	1.8	1.6
Expenditure Benchmark growth rate per cent	0.0	1.3	1.2	4.0	3.9	3.8
Deviation in year t (Negative = breach of EB)[2]	0.9	-0.6	0.1	1.7	1.5	1.7
Nominal GDP	275.6	289.1	301.9	315.1	328.0	341.5
Deviation in year t per cent GDP (Negative = breach of EB)	0.3	-0.2	0.0	0.5	0.5	0.5
Average deviation in t-1 and t per cent of GDP		0.0	-0.1	0.3	0.5	0.5

Note: Rounding may affect totals.
2. Allocation of fiscal space in unchanged from that presented in Summer Economic Statement 2017. Rainy Day Fund contributions need to be excluded from 2019 - 2021.
For detailed information regarding the calculation see equivalent table in 2017 Summer Economic Statement.
Source: Department of Finance.

Annex 3
Macro-Economic aggregates 2016 to 2021

	2016	2017	2018	2019	2020	2021
			year-on-year change			
Real GNP	9.6	0.0	3.3	3.0	2.5	2.3
Real GDP	5.1	4.3	3.5	3.2	2.8	2.6
Nominal GDP (rounded to nearest €25m)	275,575	289,100	301,825	315,075	328,000	341,475
Nominal GNP (rounded to nearest €25m)	226,750	228,050	238,400	249,100	259,075	269,350
Nominal GNI* (rounded to nearest €25m)	189,175	190,225	198,850	207,725	216,000	224,550
Components of GDP						
Personal consumption	3.3	2.3	2.3	2.2	2.1	1.9
Government consumption	5.3	2.0	2.0	2.0	1.9	1.7
Investment	61.2	-3.7	6.1	5.6	4.2	3.8
Stock changes (per cent of GDP)	0.9	0.2	0.3	0.3	0.3	0.3
Exports	4.6	3.5	4.8	4.3	4.0	3.8
Imports	16.4	-1.0	5.5	4.9	4.4	4.2
Contributions to real GDP growth			annual percentage point contribution			
Domestic demand	14.1	-0.2	2.8	2.7	2.3	2.1
Stock changes	0.1	-0.6	0.1	0.0	0.0	0.0
Net exports	-9.2	5.2	0.6	0.5	0.5	0.5
Price developments						
HICP	-0.2	0.2	0.8	1.4	1.8	1.9
GDP deflator	0.0	0.5	0.9	1.1	1.3	1.5
Personal Consumption Deflator	0.9	1.2	1.7	1.8	2.0	2.0
Labour market			year-on-year real percentage change			
Employment	2.9	2.8	2.3	2.1	1.8	1.6
Unemployment (QNHS basis)	7.9	6.3	5.7	5.5	5.5	5.5
Labour Productivity (GDP per person employed)	2.2	1.5	1.2	1.1	1.0	1.0
Compensation of Employees	5.4	5.6	5.6	5.4	5.2	5.0
Compensation per Employee	2.2	2.8	3.1	3.2	3.4	3.4
External			per cent of GDP			
Current Account (per cent of GDP)	3.3	3.0	2.0	1.3	0.6	0.1
Cyclical Developments			annual percentage point contribution			
Potential GDP Growth	5.7	4.5	4.5	4.4	3.6	3.1
Contribution to potential growth						
- Labour	2.5	1.7	1.7	1.7	0.9	0.5
- Capital	1.0	0.8	0.9	0.9	0.8	0.7
- Total factor productivity	2.1	1.9	1.8	1.8	1.8	1.9

Note: Rounding may affect totals. GNI* is a purely technical forecast, for illustrative purposes, assumed to move in line with GNP.
Source: Department of Finance

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